Impact of Environment Conscious Marketing on Consumer Buying Behaviour with special reference to Gen Z

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Abstract: This study explores the influence of environmentally conscious marketing strategies on the purchase decisions and behaviours of Generation Z consumers who demonstrate heightened environmental awareness and a preference for sustainable practices. Drawing on quantitative data collected via a Google Form questionnaire, this research examines mediating psychological factors such as environmental knowledge and brand trust, alongside moderating influences from demographics and culture. Hypothesis testing revealed the positive impact of green marketing on buying intentions, with implications for enhancing sustainable consumption. The findings offer theoretical advancements in consumer behaviour models and practical guidance for marketers targeting eco-conscious youth, ultimately supporting broader sustainability objectives.

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INTRODUCTION

Environmentally conscious marketing, commonly termed green marketing, encompasses promotional efforts that highlight a product's ecological benefits to appeal to sustainability-oriented consumers. As global environmental challenges intensify, businesses are pivoting toward these strategies to resonate with demographics like Generation Z (born 1997–2012), characterised by digital nativity, social activism, and a strong inclination toward ethical consumption. Research indicates that Generation Z consumers in emerging markets exhibit distinct preferences for eco-friendly products over non-eco-friendly alternatives, particularly when brand familiarity and green consciousness are high. This cohort's behaviours are shaped by exposure to green advertising and social responsibility cues, which foster trust and drive actual purchases, underscoring the potential of targeted marketing to promote sustainable development. [1][2]

The proliferation of green marketing reflects a market shift where consumers, especially younger ones, prioritise products that align with their values. For instance, determinants like environmental concerns and perceived green quality significantly boost Generation Z's willingness to pay premiums for sustainable goods, positioning them as pivotal drivers of eco-innovation. Brands employing authentic green strategies, such as transparent sustainability claims, can mitigate risks like greenwashing scepticism prevalent among this tech-savvy group. However, environmental incidents, such as pollution scandals, further amplify Generation Z's aversion to non-green options, influencing their apparel and broader consumption choices. This paper delves into these dynamics, focusing on how green marketing affects Generation Z's buying behaviour through psychological mediators and demographic moderators.[3]

LITERATURE REVIEW

Ewe and Tjiptono's (2023) experimental study in *Young Consumers* examined brand familiarity, consumer green consciousness, and chronic regulatory focus among 151 Malaysian Gen Z consumers through a between-subjects design. The research revealed that when consumers are more familiar with eco-friendly brands compared to non-eco-friendly alternatives, their attitudes, buying intentions, and willingness to pay premiums for sustainable products significantly increase, while these effects diminish when familiarity with non-eco-friendly brands is higher. The study further demonstrated that consumers with higher green consciousness show enhanced premium willingness for familiar eco-friendly brands, while those with lower chronic promotion focus require greater brand familiarity to develop favorable eco-friendly attitudes. This highly cited work (66 citations) advances theory by integrating brand familiarity with environmental consciousness and regulatory focus theory, offering practical insights for marketers leveraging brand positioning to enhance sustainable product demand among Gen Z consumers in emerging markets. The findings contribute significantly to understanding how cognitive shortcuts like brand familiarity can either facilitate or hinder the translation of environmental values into actual purchase behaviour in developing market contexts.[1]

Borah, Dogbe, and Marwa's (2024) study, published in *Business Strategy and the Environment,* provides critical insights into Generation Z's green purchase behaviour toward footwear, examining the interplay between green consumer knowledge, consumer social responsibility, green advertising, and green consumer trust. Utilizing a quantitative approach with structural equation modelling on Gen Z respondents, the research establishes that green consumer knowledge serves as an essential foundation for

enhancing sustainable purchase behaviour, with consumer social responsibility mediating the relationship between environmental knowledge and actual purchasing decisions. The study further reveals that green advertising positively influences consumer attitudes and trust, though its direct impact on purchase behaviour is moderated by trust levels and perceived credibility of environmental claims. Green consumer trust emerges as a pivotal moderating variable, significantly strengthening the relationship between green marketing stimuli and purchase intentions while simultaneously buffering against greenwashing scepticisms that can undermine sustainable consumption. With 76 citations since publication, this highly influential research advances sustainable development discourse by demonstrating that knowledge acquisition alone is insufficient; rather, Gen Z's green purchasing requires an integrated framework where environmental awareness translates into social responsibility consciousness, reinforced by credible advertising and authentic brand trust. The study's practical implications emphasize that marketers must prioritize building green consumer knowledge through transparent communication, cultivate trust via verifiable sustainability claims and third-party certifications, and integrate social responsibility narratives that resonate with Gen Z's values-driven consumption patterns.[2]

Gomes, Lopes, and Nogueira's (2023) study in the *Journal of Cleaner Production* examines Generation Z's willingness to pay premiums for green products using signalling theory among 927 Portuguese consumers. Employing PLS-SEM analysis, the research reveals that environmental concerns are the strongest predictor of premium payment willingness, followed by green future estimation and green perceived quality. Surprisingly, green perceived benefits negatively influence willingness to pay, suggesting Gen Z scepticism toward claimed benefits over tangible quality. This highly cited work (388 citations) demonstrates how Gen Z uses green products as signals of environmental values and social identity despite their price sensitivity. The findings emphasize that marketers should focus on communicating environmental concerns, quality attributes, and sustainability visions rather than abstract benefits when targeting this demographic.[3]

Kumar's (2025) study in the *International Journal of Scientific Research and Engineering Development* examines green marketing's strategic impact on Generation Z and Millennial consumer behaviour within ESG frameworks. Despite 64-73% of both generations expressing willingness to pay premiums for sustainable products, Kumar identifies a persistent "attitude-behaviour gap" driven by price sensitivity, scepticism, and accessibility barriers. The research establishes brand trust as the critical mediator between green marketing and consumer loyalty, showing how authentic sustainability builds positive brand attitudes while greenwashing destroys purchase intentions. Through case studies of Patagonia's "Don't Buy This Jacket" campaign and Adidas's "Run for the Oceans" initiative, Kumar demonstrates that successful green marketing requires authentic operational sustainability rather than superficial communication. The study reveals current economic pressures are reducing Gen Z's sustainability prioritization, and concludes with strategic recommendations for multinational corporations emphasizing radical transparency, mission-driven marketing, and bridging the attitude-behaviour gap through operational authenticity.[5]

Theocharis and Tsekouropoulos's (2025) study in *Sustainability* examines how brand dimensions influence Generation Z's purchase intention for sustainable technological products using quantitative cross-sectional analysis with multiple regression. The research investigates eight brand dimensions and reveals that online brand experience, brand image, brand trust, and brand loyalty are the most crucial predictors of Gen Z's purchase intention for sustainable tech products. Brand awareness and knowledge also contribute positively, while brand engagement and behavioural intention show weaker effects on purchase decisions. This highly cited work (33 citations) demonstrates that favourable digital brand interactions, positive brand perception, trust, and loyalty significantly increase Gen Z's likelihood to purchase sustainable technological offerings. The study provides strategic guidance for businesses targeting Gen Z, emphasizing the importance of building strong, trustworthy online brand presence while highlighting sustainability efforts in product development and marketing communications.[8]

PROBLEM STATEMENT & RESEARCH GAP

Despite the surge in green marketing initiatives, empirical evidence on their specific impact on Generation Z's buying behaviour remains fragmented, particularly in integrating mediating psychological factors and moderating demographic elements. While general consumer studies affirm green strategies' role in enhancing purchase intentions, targeted analyses for Generation Z—a group projected to wield substantial economic influence by 2030—highlight underexplored nuances, such as the interplay of green knowledge and advertising in emerging contexts. Existing research often overlooks how cultural values and income levels moderate these effects, leading to generalized models that fail to capture Generation Z's diverse global behaviours.[1][2]

A key gap lies in the scarcity of quantitative studies validating the translation of green awareness into tangible purchases among Generation Z, with most works relying on cross-sectional data from limited regions. For example, while environmental accidents demonstrably heighten green apparel intentions in this demographic, broader applications across product categories and marketing tactics (e.g., digital vs. traditional) are under investigated, risking ineffective strategies amid rising greenwashing concerns. This study addresses these voids by employing primary data from a diverse Generation Z sample to test hypothesized relationships, offering a more robust framework for understanding sustainable consumption drivers. [3]

OBJECTIVE & RESEARCH QUESTIONS

Objective
1. To analyse the impact of environmentally conscious marketing strategies on consumer buying behaviour patterns.

2. To identify key psychological and behavioural factors that mediate the relationship between environmental marketing and purchase decisions.

3. To examine the moderating role of demographic and cultural factors in environmentally conscious consumer behaviour.

4. To assess the effectiveness of different environmentally conscious marketing approaches in driving sustainable consumption.

Research Questions

1. How do environmentally conscious marketing strategies influence consumer buying behaviour and purchase intentions?

2. What are the key psychological factors that mediate the relationship between environmental marketing and actual purchase behaviour?

3. How do demographic characteristics and cultural values moderate the effectiveness of environmentally conscious marketing?

4. Which environmentally conscious marketing approaches are most effective in converting environmental awareness into actual buying behaviour?

HYPOTHESES

H1: Environment-conscious marketing strategies positively influence consumer buying behaviour and purchase intentions.
H2: Environmental awareness and knowledge significantly mediate the relationship between environmentally conscious marketing exposure and purchase behaviour.
H3: Brand trust and credibility moderate the relationship between environmentally conscious marketing messages and consumer purchase intentions.
H4: Demographic factors (age, income, education) significantly moderate the effectiveness of environmentally conscious marketing on buying behaviour.

RESEARCH METHODOLOGY

Population and Sample

The population of this study comprises Generation Z consumers who are exposed to environmentally conscious marketing strategies through various media platforms such as social media, digital advertisements, and sustainable product packaging. The study specifically targets Gen Z individuals aged between 18 and 28 years, as this demographic represents a segment highly responsive to sustainability communication and eco-conscious branding.

A total of 116 responses were collected through a structured online questionnaire, of which 113 valid responses were used for the final analysis after data screening and cleaning. The respondents were selected using a convenience sampling technique, primarily consisting of students, young professionals, and early-career consumers who actively engage with eco-marketing messages.

This sample adequately represents the behavioural tendencies of Gen Z consumers in terms of environmental awareness, brand trust, and sustainable purchasing behaviour.

Data and Data Sources

The study used primary data collected via a structured questionnaire designed on a five-point Likert scale ranging from "Strongly Disagree (1)" to "Strongly Agree (5)". The questionnaire was distributed electronically through Google Forms to ensure broad accessibility among Gen Z respondents.

The instrument comprised four main constructs:
1. Environmentally Conscious Marketing Exposure – 6 items (eco-labels, eco-packaging, green advertising, etc.)
2. Environmental Awareness and Knowledge – 7 items (concern for environment, eco-label knowledge, personal responsibility)
3. Brand Trust and Credibility – 6 items (trustworthiness, reliability, satisfaction)
4. Purchase Intention and Green Buying Behaviour – 5 items (willingness to pay more, regular purchase of green products)

The collected responses were analyzed using Python (Statsmodels, Pandas, and Scipy libraries) to compute descriptive statistics, reliability coefficients, regression models, mediation, moderation, and ANOVA tests.

Theoretical Framework

The study examines the impact of Environmentally Conscious Marketing on Consumer Buying Behaviour, particularly focusing on Generation Z. The conceptual framework posits that Environmentally Conscious Marketing influences Purchase Intention directly, while Environmental Awareness acts as a mediating variable. Brand Trust and Demographic Variables (Age, Income, Education) serve as moderating factors affecting the strength and direction of this relationship.

Dependent Variable: Purchase Intention / Green Buying Behaviour
Independent Variable: Environmentally Conscious Marketing Exposure

Mediating Variable: Environmental Awareness
Moderating Variables: Brand Trust, Demographic Factors (Age, Income, Education)

Statistical Tools and Analytical Framework

The analysis utilized both descriptive and inferential statistical techniques to test the proposed hypotheses and research questions. Python's Statsmodels, Pandas, and SciPy libraries were used to ensure robust computation and interpretation of results.

Descriptive Statistics

Descriptive statistics including mean, standard deviation, minimum, and maximum values were calculated for all variables. The constructs' mean values ranged between 3.6 and 3.9, indicating generally positive attitudes among respondents toward eco-friendly marketing and behavior.

Reliability Analysis (Cronbach's α)

Construct	Cronbach's α
Marketing Exposure	0.887
Environmental Awareness	0.873
Brand Trust	0.894
Purchase Intention	0.831

Correlation and Regression Analysis

Pearson correlations were computed to assess relationships between constructs, followed by multiple regression to test the impact of marketing exposure, awareness, and brand trust on purchase intention.

Model Summary (Multiple Regression): $R^2 = 0.669$

Significant predictors: Marketing Exposure ($\beta = 0.201$, $p = 0.009$), Environmental Awareness ($\beta = 0.523$, $p < 0.001$), Brand Trust ($\beta = 0.165$, $p = 0.039$).

Mediation Analysis

A bootstrapped mediation test (2,000 samples) was conducted to examine the indirect effect of Environmental Awareness between Marketing Exposure and Purchase Intention.
Indirect Effect = 0.371, 95% CI [0.207, 0.481].

Moderation Analysis

Moderation effects were tested using interaction terms:
• Marketing × Brand Trust: Not significant ($p = 0.542$)
• Marketing × Income: Significant for Above ₹30,000 and Below ₹5,000 ($p < 0.05$)
• Marketing × Education: Not significant

ANOVA and Kruskal – Wallis Test

Group mean differences in purchase intention across demographic categories were tested using both ANOVA and Kruskal–Wallis tests.

Summary of Analytical Approach

Analytical Method	Purpose	Key Findings
Descriptive Statistics	Identify response trends	Positive eco attitudes (mean > 3.6)
Reliability (α)	Assess scale consistency	All α > 0.8 (high reliability)
Regression	Test direct effects	Awareness strongest predictor

Mediation	Test indirect effects	Supported (significant)
Moderation	Test conditional effects	Income moderates relationship
ANOVA/Kruskal–Wallis	Compare groups	No significant differences

EXPECTED CONTRIBUTION

Theoretically, this study enriches consumer behaviour literature by empirically linking green marketing to Generation Z's decisions through validated mediators and moderators, extending models like the Theory of Planned Behaviour in sustainability contexts. Practically, it equips marketers with insights to craft authentic, demographic-tailored campaigns that boost sustainable sales, while informing policymakers on fostering eco-literacy among youth. Overall, it advances sustainable development goals by bridging awareness-purchase gaps in a key consumer segment.

RESULTS AND DISCUSSION

This section presents the results obtained from the statistical analysis of the primary data collected from 113 valid responses of Gen Z consumers. The analysis aimed to evaluate the impact of environmentally conscious marketing on consumer buying behaviour, with a particular focus on Generation Z's awareness, trust, and demographic influences. A combination of descriptive statistics, reliability tests, multiple regression, mediation, moderation, and ANOVA were performed using Python's analytical libraries to validate the proposed hypotheses (H1–H4). The discussion integrates these findings with prior literature on sustainable marketing and consumer psychology.

Descriptive Statistic

Descriptive statistics were calculated to understand the general tendencies of the respondents toward environmentally conscious marketing, awareness, trust, and green purchasing behaviour.

Construct	Mean	Std. Deviation
Marketing Exposure	3.62	0.96
Environmental Awareness	3.87	0.83
Brand Trust	3.83	0.88
Purchase Intention	3.81	0.85

The overall mean scores (all above 3.6 on a 5-point scale) indicate that Gen Z respondents possess a generally positive attitude toward eco-friendly marketing and sustainable consumption.

Reliability Analysis

Construct	Cronbach's α	Reliability Interpretation
Marketing Exposure	0.887	Excellent
Environmental Awareness	0.873	Excellent
Brand Trust	0.894	Excellent
Purchase Intention	0.831	Very Good

All α values exceeded 0.70, confirming that the items used to measure each construct are highly reliable and suitable for further analysis.

Correlation Analysis

Pearson's correlation coefficients revealed strong positive relationships among all study constructs:
• Marketing Exposure ↔ Purchase Intention: r = 0.703
• Environmental Awareness ↔ Purchase Intention: r = 0.788
• Brand Trust ↔ Purchase Intention: r = 0.667

These findings indicate that greater exposure to environmental marketing messages is associated with higher purchase intention, and that awareness and trust are closely linked to consumers' willingness to buy eco-friendly products.

Multiple Regression Analysis

Predictor	β (Coefficient)	p-value	Result
Marketing Exposure	0.201	0.009	Significant
Environmental Awareness	0.523	0.000	Significant
Brand Trust	0.165	0.038	Significant

Model R^2 = 0.669

The model explains approximately 66.9% of the variance in purchase intention. Environmental awareness emerged as the strongest predictor, followed by marketing exposure and brand trust. These results empirically support H1, consistent with prior findings emphasizing that green marketing positively affects eco-purchasing behaviour**.**

Mediation Analysis

Path	Coefficient	Result
a (Marketing → Awareness)	0.623	Significant
b (Awareness → Purchase)	0.595	Significant
Indirect Effect (a×b)	0.371	Significant
95% Bootstrap CI	[0.207, 0.481]	Significant
Direct Effect (Marketing → Purchase)	0.258	Partial mediation

Environmental awareness partially mediates the relationship between marketing exposure and purchase intention, confirming H2.

Moderation Analysis

Moderation results:
• Marketing × Brand Trust: p = 0.542 (Not significant)
• Marketing × Education: all p > 0.05 (Not significant)
• Marketing × Income: significant for Below ₹5,000 (p = 0.021) and Above ₹30,000 (p = 0.027)

ANOVA and Kruskal-Wallis Results

Variable	ANOVA p-value	Kruskal–Wallis p-value	Interpretation
Age	0.474	0.389	Not significant
Income	0.257	0.203	Not significant
Education	0.199	0.448	Not significant

Discussion of Findings

The findings confirm that environmentally conscious marketing significantly enhances purchase intention (H1 supported). Environmental awareness mediates this effect (H2 supported). Brand trust influences purchase intention directly but not as a moderator (H3 not supported). Income moderates the marketing–purchase relationship (H4 partially supported). These results show that Gen Z consumers are responsive to authentic and informative eco-marketing, aligning with global research on green consumer behaviour.

CONCLUSION

The present study set out to examine the impact of environmentally conscious marketing on consumer buying behaviour among Generation Z consumers. Using descriptive and inferential statistical analyses on data collected from 113 respondents, the study

provides empirical evidence that environmentally conscious marketing, environmental awareness, and brand trust significantly shape Gen Z's purchase intentions toward green products.

The findings revealed that environmental awareness acts as a partial mediator between marketing exposure and purchase intention. This means that when consumers are made more aware of environmental issues and sustainability practices, they are more likely to translate their positive attitudes into actual buying behaviour. Thus, eco-marketing strategies that educate and inform consumers about environmental benefits can greatly enhance the effectiveness of green campaigns.

Although brand trust was not found to moderate the relationship between marketing and purchase behaviour, it remains a significant direct predictor of purchase intention. Consumers who trust a brand's environmental claims are more inclined to engage in sustainable consumption. This highlights the crucial role of authenticity, transparency, and credibility in eco-marketing communication.

The study also found that income level moderates the relationship between environmentally conscious marketing and purchase intention. Both low- and high-income respondents showed stronger responsiveness to eco-marketing, suggesting that affordability and perceived value play key roles in sustainable buying behaviour. Conversely, no significant differences were found across age or education, implying that environmental sensitivity is broadly shared within the Gen Z segment.

In conclusion, the study confirms that environmentally conscious marketing strategies have a significant positive impact on the green buying behaviour of Generation Z. To capitalize on this trend, businesses should design awareness-driven, trust-based marketing campaigns that emphasize genuine sustainability commitments. By aligning marketing communication with the ethical and ecological values of Gen Z, firms can foster long-term brand loyalty while promoting sustainable consumption patterns.

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