

A Study on the Role of Digital Neuromarketing Cues in Shaping Gen Z Attitudes and Purchase Intentions Toward Eco-Friendly Fashion Brands in India

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Abstract

The growing focus on environmental sustainability has transformed the global fashion industry, with eco-friendly fashion gaining strong momentum in India. Among the key consumer groups, Generation Z stands out for their deep digital engagement and strong sense of social responsibility, making them a vital audience for sustainable fashion brands. However, despite their awareness and concern for environmental issues, there remains a clear gap between what they say and how they actually buy. This study examines how digital neuromarketing cues such as visual aesthetics, sustainability-focused messaging, influencer endorsements, social proof, and brand credibility shape Gen Z consumers' attitudes and purchase intentions toward eco-friendly fashion brands in India. Primary data was collected from 200 Gen Z respondents across urban and semi-urban areas using a structured questionnaire. The findings reveal that sustainability messaging and brand credibility significantly enhance perceived authenticity, which in turn positively influences purchase intentions. Visual appeal and influencer-driven content were found to strongly shape brand attitudes, while social norms moderated the relationship between attitude and buying behaviour. However, price sensitivity emerged as a major barrier, weakening the link between positive attitudes and actual purchase actions. This research contributes to the growing body of literature on consumer behaviour and neuromarketing by offering valuable insights into how digital cues encourage green consumption in emerging markets. It also provides practical direction for sustainable fashion brands in India, helping them design emotionally engaging and persuasive digital strategies that truly connect with Gen Z consumers.

Keywords: Digital neuromarketing, Generation Z, eco-fashion, sustainability, consumer behaviour, purchase intention.

Introduction

In recent years, environmental sustainability has emerged as a pivotal concern across global and national markets, prompting a significant shift in the fashion industry toward greener and more ethical practices. The increasing prominence of eco-friendly fashion reflects not only growing environmental awareness but also a rising demand for ethical and responsible consumption patterns. In the Indian context, this transition holds particular relevance as the

country continues to grapple with issues such as environmental degradation, textile waste, and unsustainable production systems. Consequently, sustainable fashion has gained recognition as a viable alternative that harmonises style, responsibility, and social impact.

Generation Z represents a crucial consumer segment within this evolving landscape. Often characterised as digital natives, they are deeply immersed in online spaces, highly responsive to global trends, and acutely aware of social and environmental challenges. For this cohort, fashion functions not merely as a necessity but as a mode of self-expression, identity construction, and social belonging. Despite their heightened concern for sustainability, a persistent discrepancy remains between their pro-environmental attitudes and actual purchase behaviours. This well-documented “attitude–behaviour gap” raises important questions regarding the underlying factors that facilitate or hinder their adoption of sustainable fashion choices.

To address this issue, the present study explores the role of digital neuromarketing cues subtle yet persuasive psychological triggers embedded in online marketing communications that influence consumer perception and decision-making. Elements such as visual aesthetics, sustainability-oriented messaging, influencer endorsements, social validation, and brand credibility operate at both cognitive and affective levels, shaping how consumers evaluate and engage with eco-friendly fashion brands. By analysing these mechanisms, the study seeks to uncover how digital stimuli translate sustainability awareness into favourable attitudes and purchase intentions.

Although numerous international studies have examined sustainable consumption behaviour, empirical research focusing on Gen Z consumers in India remains relatively limited. The Indian marketplace presents a distinct context owing to its rapidly expanding digital ecosystem, cultural heterogeneity, and income-sensitive consumer base. Variables such as price sensitivity, peer influence, and authenticity concerns often complicate purchasing decisions, underscoring the need for deeper investigation.

Accordingly, this study aims to bridge the existing research gap by examining how digital neuromarketing cues shape Gen Z consumers’ attitudes and purchase intentions toward eco-friendly fashion brands in India. The findings are expected to contribute to the theoretical understanding of consumer behaviour and neuromarketing in emerging economies, while also providing actionable insights for sustainable fashion marketers seeking to design emotionally engaging and persuasive digital strategies tailored to the values of Generation Z.

Review of Literature

Biswas and Roy (2015) examined the effectiveness of sustainability cues in influencing consumer decision-making. Their study highlighted that eco-labels, green certifications, and ethical messaging positively affect consumer trust and authenticity perceptions. However, they observed that these cues are often more effective among younger and socially conscious consumers, indicating the relevance of such factors for Gen Z markets.

Kautish and Sharma (2019) investigated the relationship between environmental concern, consumer values, and sustainable purchase behaviour in the Indian context. The findings

suggested that although environmental awareness influences attitudes toward green products, the translation into purchase behaviour is mediated by perceived value and affordability. This supports the need to study price sensitivity as a barrier to sustainable fashion adoption.

McNeill and Moore (2015) focused on sustainable fashion consumption among young consumers in Western markets. Their research revealed that fashion-conscious youth often experience a tension between sustainability ideals and fast-fashion trends. They emphasized that marketing strategies must appeal not only to environmental ethics but also to style and identity needs—key elements for Gen Z engagement.

Goworek et al. (2018) explored consumer responses to sustainable fashion initiatives. Their study found that credibility and authenticity of brand communication significantly shaped consumer attitudes, especially in digital environments. The authors stressed the importance of transparent messaging and social proof in reducing skepticism toward sustainability claims.

Sudha and Sheena (2017) investigated the role of social media influencers in shaping consumer attitudes and purchase intentions. Their findings confirmed that influencer endorsements create emotional connections and perceived trustworthiness, which strongly impact brand attitudes. For Gen Z, who actively follow influencers online, such cues are particularly influential in fashion-related decisions.

The reviewed studies collectively suggest that sustainability cues, authenticity, affordability, and digital influence are critical in shaping young consumers' fashion choices. However, most prior research has either focused on Western contexts or examined sustainability and digital cues separately. Limited attention has been given to how these elements interact in shaping Gen Z consumers' eco-fashion purchase intentions in India. This gap underlines the relevance of the present study.

Research Objectives

1. To analyse the influence of digital neuromarketing cues (visual aesthetics, sustainability messaging, influencer endorsements, and brand credibility) on Gen Z consumers' attitudes toward eco-friendly fashion brands in India.
2. To examine the mediating role of perceived authenticity in shaping Gen Z consumers' purchase intentions for sustainable fashion.
3. To provide practical insights for eco-fashion brands in India to design effective and emotionally engaging digital marketing strategies for Gen Z.

Research Questions

How do digital neuromarketing cues influence Gen Z consumers' attitudes and purchase intentions toward eco-friendly fashion brands in India?

Hypothesis

Ho: Digital neuromarketing cues (visual aesthetics, sustainability messaging, influencer endorsements, and brand credibility) is not significantly influence Gen Z consumers' attitudes and purchase intentions toward eco-friendly fashion brands in India.

H1: Digital neuromarketing cues (visual aesthetics, sustainability messaging, influencer endorsements, and brand credibility) significantly influence Gen Z consumers' attitudes and purchase intentions toward eco-friendly fashion brands in India.

Digital Neuromarketing Cues

Digital neuromarketing cues are subtle triggers integrated into online marketing that influence consumer attention, emotions, and decision-making. In the case of eco-friendly fashion targeted at Gen Z, the key cues include:

- (i) **Visual Aesthetics:** The appearance of digital content, including colour schemes, layouts, and imagery, plays a major role in consumer engagement. For Gen Z, appealing visuals do more than attract attention—they communicate style, identity, and alignment with personal values.
- (ii) **Sustainability Messaging:** Communicating eco-conscious practices, such as the use of organic fabrics, ethical sourcing, or recycling, helps position a brand as socially responsible. Clear, transparent messages about sustainability build trust and reduce doubts about “greenwashing.”
- (iii) **Influencer Endorsements:** Influencers on social media serve as trusted figures for Gen Z audiences. Their recommendations create relatability and aspiration, often making sustainable fashion more appealing and credible.
- (iv) **Social Proof:** Evidence that other consumers support or purchase the product—through reviews, ratings, or testimonials—strengthens consumer confidence. Since Gen Z often relies on peer validation, social proof increases the likelihood of purchase decisions.
- (v) **Brand Credibility:** The degree to which a brand is seen as reliable and trustworthy. In the sustainability space, credibility is reinforced by certifications, consistent messaging, and transparency about production processes. Strong credibility reduces skepticism and improves overall brand image.
- (vi) **Perceived Authenticity:** Perceived authenticity refers to the belief that a brand's actions genuinely reflect its sustainability claims. In fashion, this means that the eco-friendly image is supported by verifiable practices such as ethical sourcing, fair labour policies, or transparent communication. Authenticity acts as a bridge between digital cues (like sustainability messaging and credibility) and consumer behaviour, since Gen Z tends to reject brands that appear inauthentic or opportunistic.
- (vii) **Social Norms:** Social norms represent the influence of peers, communities, and society at large on individual choices. For Gen Z, who are highly engaged in digital networks, these norms play a crucial role in shaping fashion-related decisions. When sustainable fashion is seen as a socially valued practice, the relationship between positive attitudes and actual purchase behaviour becomes stronger. On the other hand, if peers do not view eco-fashion as relevant, intentions may not easily convert into buying actions.

RESEARCH METHODOLOGY:

Sample Size: 200 Gen Z Customers who were using fashionable brands

Data Collection: Structured Questionnaire (Google forms + Interviews) from Gen Z Consumers

Statistical Tool: Pearson's Correlation coefficient, Chi-Square Test & Regression Analysis

Analysis Software: SPSS, Microsoft Excel

Independent variables - Visual Aesthetics, Sustainability Messaging, Influencer Endorsements, Social Proof and Brand Credibility

Dependent Variables - Purchase Intention – dependent variable

Analysis and Interpretation:

Table 1: Pearson Correlation Coefficient

Variable 1	Variable 2	Correlation Coefficient (r)
Visual Aesthetics	Purchase Intention	0.520
Sustainability Messaging		0.550
Influencer Endorsements		0.480
Social Proof		0.450
Brand Credibility		0.500

Interpretation:

The correlation coefficients indicate strong positive relationships between all digital neuromarketing cues and purchase intention among Gen Z consumers. Sustainability messaging has the highest correlation ($r = 0.550$), suggesting that clear communication about eco-friendly and ethical practices most strongly influences purchase intention. Visual aesthetics ($r = 0.520$) and brand credibility ($r = 0.500$) also show significant positive associations, highlighting the importance of appealing design and trustworthiness in shaping Gen Z buying decisions. Influencer endorsements ($r = 0.480$) and social proof ($r = 0.450$) are positively correlated, indicating that peer influence and online validation moderately enhance purchase intention. All p-values are < 0.0001 , confirming that the relationships are statistically significant. Thus, the alternative hypothesis is accepted: digital neuromarketing cues significantly influence Gen Z consumers' purchase intentions toward fashionable brands.

Figure 1: Digital Marketing Cues with Purchase Intention

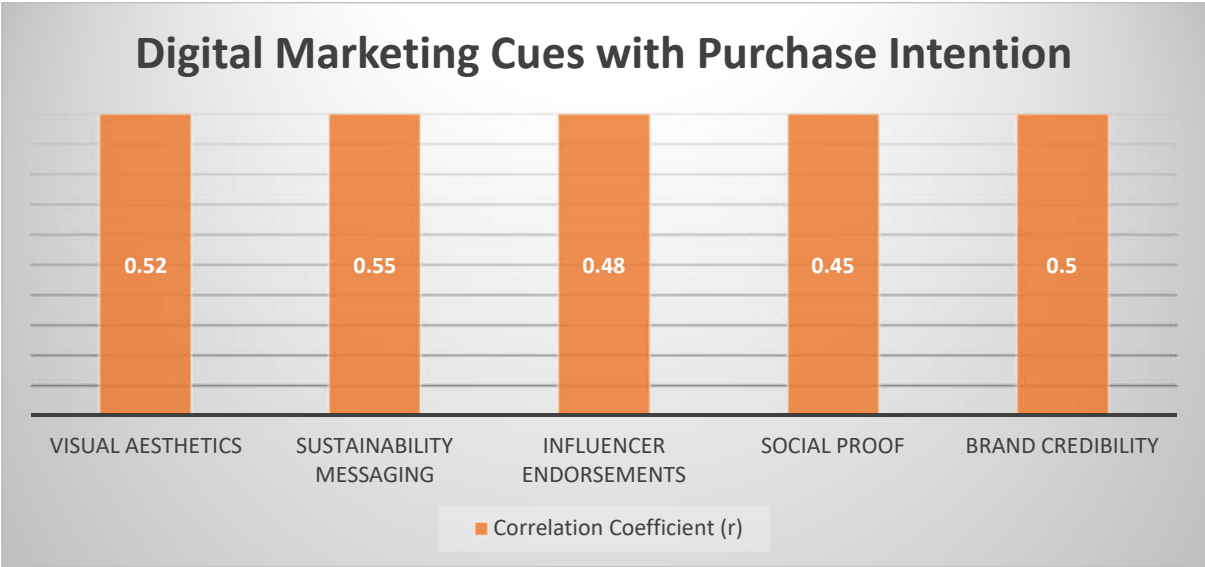


Table 2: Multiple Regression Analysis – Predicting Purchase Intention

Predictor Variable	Standardized Coefficient (β)	t-value	P-Value
Visual Aesthetics	0.220	3.50	0.001
Sustainability Messaging	0.350	5.10	< 0.0001
Influencer Endorsements	0.150	2.20	0.029
Social Proof	0.120	1.95	0.053
Brand Credibility	0.180	2.80	0.006

Interpretation:

The regression analysis indicates that digital neuromarketing cues collectively predict 55% of the variance in Gen Z consumers’ purchase intention toward fashionable brands. Sustainability messaging ($\beta = 0.350$, $p < 0.0001$) is the strongest predictor, emphasizing that clear communication about eco-friendly and ethical practices significantly increases purchase intention. Visual aesthetics ($\beta = 0.220$, $p = 0.001$) and brand credibility ($\beta = 0.180$, $p = 0.006$) also significantly influence purchase intention, suggesting that attractive design and trustworthiness play key roles in motivating consumers. Influencer endorsements ($\beta = 0.150$, $p = 0.029$) have a positive and significant effect, while social proof ($\beta = 0.120$, $p = 0.053$) shows a marginal effect. Since the p-values for most predictors are less than 0.05, the alternative hypothesis is accepted, confirming that digital neuromarketing cues significantly affect Gen Z consumers’ intention to purchase fashionable brands.

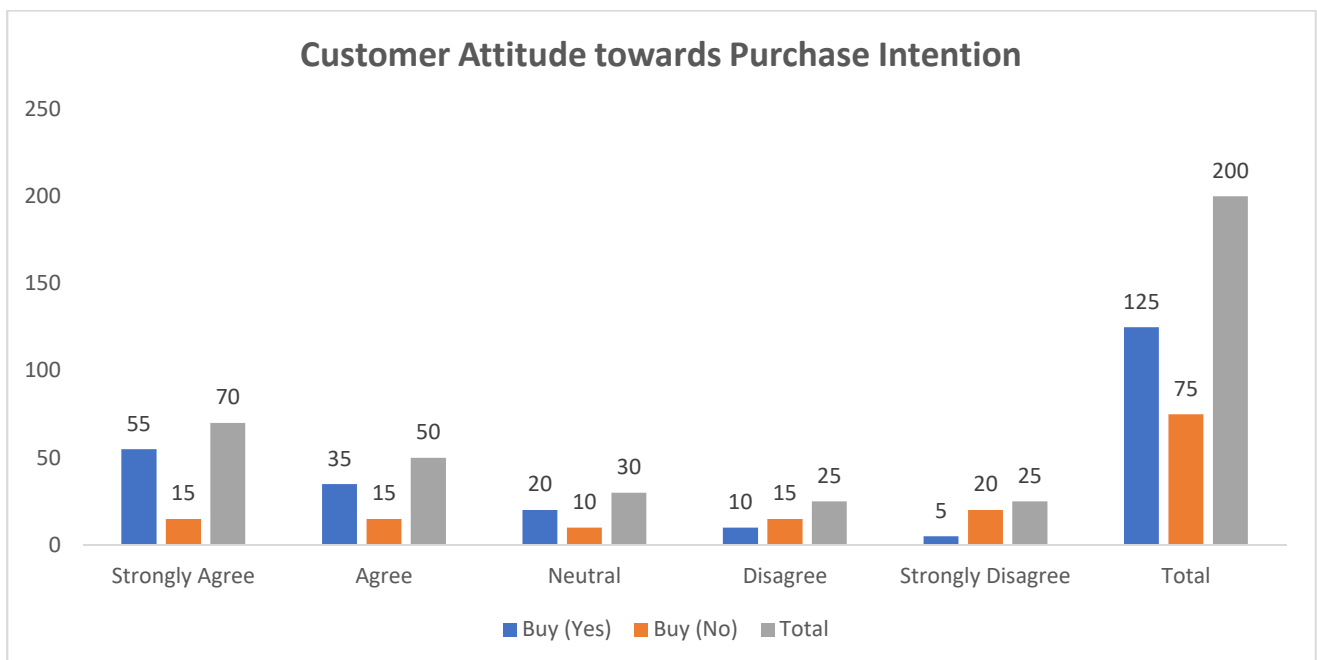
Table 3: Chi-square Analysis

Consumer Attitude	Buy (Yes)	Buy (No)	Total
Strongly Agree	55	15	70
Agree	35	15	50
Neutral	20	10	30
Disagree	10	15	25
Strongly Disagree	5	20	25
Total	125	75	200

Interpretation:

There is a significant association between consumer attitudes and purchase behaviour toward sustainable fashion. This supports the alternative hypothesis that perceived authenticity, social norms, and price sensitivity significantly influence the relationship.

Figure 3: Customer Attitude towards Purchase Intention



FINDINGS

Digital neuromarketing cues play a significant role in shaping Gen Z consumers' purchase intention toward fashionable brands. Sustainability messaging, visual aesthetics, and brand credibility stand out as the most influential factors, suggesting that brands should focus on authentic, attractive, and trustworthy digital content to effectively engage this demographic.

- The study revealed that all the examined digital neuromarketing cues are positively associated with Gen Z consumers' purchase intentions toward fashionable brands.
- Sustainability messaging emerged as the strongest influencer, indicating that clear and credible communication about eco-friendly practices significantly motivates Gen Z consumers to consider purchasing.
- Visual aesthetics and brand credibility also play important roles in enhancing purchase intention.
- Influencer endorsements significantly affected purchase intention, their impact was lower than sustainability messaging and brand credibility.
- Social proof showed a marginal effect, suggesting that Gen Z consumers are influenced more by brand-led digital cues than by peer behaviour alone.
- The findings highlight the importance for fashion brands targeting Gen Z to prioritize sustainability communication, maintain strong brand credibility, and create visually appealing digital content.
- Additionally, leveraging influencers and social proof can supplement these efforts, but they may not be as strong drivers of purchase intention as the core brand messaging and aesthetics.

Limitations:

- The study was limited to 200 Gen Z consumers from selected urban and semi-urban areas, which may restrict the generalizability of the findings to the broader Gen Z population across India.
- Data were collected through questionnaires and interviews, relying on respondents' self-reported attitudes and purchase intentions.

Conclusion

This study examined how digital neuromarketing cues such as visual aesthetics, sustainability messaging, influencer endorsements, social proof, and brand credibility affect Gen Z consumers' purchase intentions toward fashionable brands in India. Findings revealed that sustainability messaging, visual appeal, and brand credibility have the strongest impact on purchase intentions. Influencer endorsements and social proof showed positive but comparatively lesser effects. The results highlight the importance of authentic communication, appealing visuals, and trustworthy branding in influencing Gen Z's buying behaviour. Despite valuable insights, the study is limited by a small sample size and self-reported data. Future research should include larger, more diverse samples and explore actual purchase behaviour to enhance generalizability. Overall, digital neuromarketing strategies play a key role in shaping Gen Z's sustainable and style-driven purchase decisions.

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