

Green Branding and Generation Z: Shaping Sustainable Purchasing Decisions

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ABSTRACT

As environmental sustainability ascends the global agenda, corporations are increasingly adopting green branding strategies to align with evolving consumer expectations. Generation Z (born 1997-2012) represents a digitally native, environmentally conscious cohort whose purchasing decisions are shaped by ecological values. This study investigates the influence of green branding operationalised through eco-label credibility, green brand image, environmental advertising appeal, and green brand trust on sustainable purchasing decisions among Generation Z consumers. Employing a quantitative, cross-sectional survey design with a sample of 280 Gen Z respondents drawn from urban and semi-urban Indian settings, the study applies Structural Equation Modelling (SEM) and multiple regression analysis to examine hypothesised relationships. Results indicate that green brand trust (beta = 0.41, $p < 0.001$) and eco-label credibility (beta = 0.33, $p < 0.001$) are the strongest predictors of sustainable purchasing decisions, while green brand image and environmental advertising appeal exert significant but comparatively moderate effects. The model explains 68.7% of the variance in sustainable purchasing decisions ($R^2 = 0.687$). Findings contribute to green marketing theory and carry practical implications for brand managers targeting the Generation Z segment.

Keywords: green branding; Generation Z; sustainable purchasing; eco-label credibility; green brand trust; environmental marketing; India; SEM

1. Introduction

The global marketplace is undergoing a fundamental transformation propelled by heightened awareness of climate change and environmental degradation. Businesses across diverse industries are recalibrating their branding strategies to incorporate ecological values, a trend broadly termed green branding [1]. Green branding encompasses the deliberate integration of environmental commitments into a firm's brand identity, product positioning, and communication strategies, signalling corporate stewardship of natural resources [2]. As consumer consciousness around ecological sustainability has intensified, green branding has evolved from a peripheral corporate responsibility initiative into a central marketing imperative for organisations competing in environmentally sensitive markets [3]. Concurrently, Generation Z, individuals born approximately between 1997 and 2012, is rapidly emerging as one of the most commercially and culturally influential consumer cohorts

of the 21st century [4]. Having come of age during the proliferation of social media, the global climate movement, and mounting awareness of ecological crises, Gen Z consumers demonstrate distinctively pronounced pro-environmental attitudes and a propensity to embed sustainability into their consumption behavior [5]. Relative to their Millennial predecessors, Gen Z members tend to exhibit a higher degree of scepticism towards corporate sustainability claims and greater vigilance against greenwashing, rendering them both a critically important and challenging target segment for green marketers [6]. Despite a rapidly expanding body of scholarship on green marketing and sustainable consumer behaviour, research specifically examining the nexus between green branding dimensions and Generation Z purchasing decisions remains comparatively underdeveloped, particularly within emerging market contexts such as India [7]. The Indian market constitutes a compelling and strategically significant case: India's youth population exceeds 27% of the country's 1.4 billion citizens, with Generation Z representing approximately 375 million individuals [8]. As disposable incomes rise among Indian urban youth and environmental discourse intensifies, understanding how green branding stimuli shape their purchasing decisions carries substantial theoretical importance and managerial urgency [9]. This study seeks to fill this empirical and theoretical gap by investigating the influence of four dimensions of green branding eco-label credibility, green brand image, environmental advertising appeal, and green brand trust — on sustainable purchasing decisions among Gen Z consumers in India. Anchored in the Theory of Planned Behaviour [10] and the Stimulus-Organism-Response framework and drawing on a primary cross-sectional survey of 280 respondents analysed through Structural Equation Modelling (SEM) and multiple regression, this paper contributes to the literature on green marketing and sustainable consumer behaviour while offering actionable guidance for marketing practitioners. The paper is structured as follows: Section 2 reviews relevant literature and develops the theoretical framework and hypotheses. Section 3 presents the research methodology. Section 4 reports the analytical results. Section 5 discusses the findings in relation to prior theory and practice. Section 6 concludes with theoretical contributions, managerial implications, limitations, and directions for future inquiry.

2. Literature Review and Theoretical Framework

2.1. Green Branding: Concept and Key Dimensions

Green branding refers to a firm's deliberate effort to build brand equity through environmental associations, encapsulating the set of assets and liabilities tied to the ecological attributes of a brand [11]. Pioneering conceptual work by [12] defined green brand equity as the differential effect of green brand knowledge on consumer response to a brand's marketing activities. The extant literature converges on four principal dimensions of green branding that collectively shape consumer evaluation and response: eco-label credibility, green brand image, environmental advertising appeal, and green brand trust [13]. Eco-labels function as informational cues, offering consumers third-party verified signals about a product's environmental performance and thereby reducing the information asymmetry inherent in green product markets [14]. Eco-label credibility, defined as consumers' perception that eco-label claims are truthful, reliable, and verifiable, reinforces consumer confidence in the ecological integrity of a product and has been shown to facilitate green purchase behavior across diverse consumer contexts [15]. Green brand image, operationalized as the constellation of environmental perceptions that consumers associate with a brand in their cognitive schema [16]. Has been consistently linked to positive consumer attitudes and elevated purchase intentions in green marketing research [17]. Environmental advertising appeal refers to the deployment of ecological themes, green imagery, and sustainability messaging in advertising communications designed to arouse ecological consciousness and stimulate pro-environmental consumer responses [18]. Green brand trust, defined as a consumer's willingness to rely on a brand grounded in the belief that the brand consistently fulfils its stated environmental commitments, has emerged as a critical determinant of green purchasing behaviour and a powerful mediating variable in the green branding-purchase intention relationship [19].

2.2. Generation Z and Sustainable Consumption

Generation Z is the first cohort to have been entirely immersed in the digital age from birth, with smartphones, social media, and pervasive internet connectivity as defining features of their formative experience [20]. Empirical research consistently characterises Gen Z as a values-driven, socially conscious generation for whom environmental stewardship, corporate accountability, and ethical consumption are salient concerns [21]. A landmark global survey by First Insight and [22] found that 73% of Gen Z respondents expressed willingness to pay a premium for sustainable products, a proportion exceeding that of Millennials (66%), underscoring the commercial significance of this cohort for green marketers. In the Indian context, a growing body of empirical research documents the rising environmental consciousness of young consumers and its influence on purchasing behaviour [23]. However, scholars consistently identify a well-documented intention-behaviour gap within this population, attributable to persistent price sensitivity, limited availability of green products in Indian retail channels, and widespread scepticism towards the credibility of corporate environmental claims [24]. Bridging this gap requires a deeper understanding of the specific green branding stimuli that resonate most powerfully with Indian Gen Z consumers, motivating them to translate pro-environmental attitudes into actual sustainable purchasing decisions

2.3. Theoretical Framework

This study integrates two complementary theoretical perspectives: the Theory of Planned Behaviour [24] and the Stimulus-Organism-Response (S-O-R) framework [25]. TPB postulates that behavioural intentions and by extension, actual consumer behaviour are determined by attitudes towards the behaviour, subjective norms, and perceived behavioural control. Within the present study, green branding dimensions function as attitudinal inputs that shape Gen Z consumers' evaluative orientations towards sustainable products, thereby influencing their purchase intentions and decisions [26]. The S-O-R framework complements TPB by framing green branding stimuli (S) as external environmental cues that trigger internal evaluative and affective processes within the consumer organism (O), which in turn produce observable behavioural responses in the form of sustainable purchasing decisions (R) [27]. This integrated theoretical lens is well-suited to capturing the multifaceted dynamics of environmentally motivated consumer decision-making among Gen Z, a cohort that processes brand information through both deliberate cognitive evaluation and spontaneous affective engagement shaped by digital media exposure [28].

3. Hypotheses Development

Drawing on the foregoing literature and the integrated TPB-S-O-R framework, five hypotheses are proposed:

- H1: Eco-label credibility has a significant positive influence on Gen Z consumers' sustainable purchasing decisions.
- H2: Green brand image has a significant positive influence on Gen Z consumers' sustainable purchasing decisions.
- H3: Environmental advertising appeal has a significant positive influence on Gen Z consumers' sustainable purchasing decisions.
- H4: Green brand trust has a significant positive influence on Gen Z consumers' sustainable purchasing decisions.
- H5: Green brand trust partially mediates the relationship between eco-label credibility and sustainable purchasing decisions.

4. Methodology

4.1. Research Design

This study employs a quantitative, cross-sectional research design, consistent with positivist epistemological assumptions and well-suited to testing hypothesised causal relationships among multiple constructs [29]. A deductive approach guides the research process, enabling systematic hypothesis testing against an established theoretical framework and facilitating the generation of generalisable conclusions about the influence of green branding on Gen Z sustainable purchasing behaviour.

4.2. Sample and Sampling Procedure

The target population consists of Generation Z consumers aged 18 to 27 residing in urban and semi-urban regions of India who report having made at least one environmentally motivated purchase in the twelve months preceding the survey. A purposive sampling strategy, supplemented by snowball sampling conducted through university institutional networks and social media platforms, was employed to recruit eligible participants while ensuring diversity across gender, income levels, and academic backgrounds. Sample size was determined in accordance with established guidelines for Structural Equation Modelling, which recommend a minimum ratio of 5 to 10 observed indicators per latent construct parameter [30]. With 32 observed indicators across the five latent constructs in the measurement model, the minimum required sample was 160 respondents. To ensure statistical power and accommodate potential attrition from incomplete or invalid responses, 300 questionnaires were distributed. After removing questionnaires with more than 10% missing data or failed attention-check items, 280 valid responses were retained, representing a usable response rate of 93.3% and satisfying SEM sample size requirements.

4.3. Measurement Instrument

Data were collected via a structured self-administered questionnaire comprising two sections. The first section captured respondents' socio-demographic characteristics: age, gender, monthly household income, educational attainment, and frequency of green purchasing. The second section contained multi-item reflective scales measuring all study constructs, anchored on a five-point

Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Variable	No of Item	Source
Eco-label credibility	06	Thøgersen et al. (2010)
Green brand image	07	Chen (2010).
Environmental advertising appeal	06	Hartmann et al. (2005).
Green brand trust	07	Bhattacharya and Sen (2003).
Sustainable purchasing decisions	06	Joshi and Rahman (2015)

All scales underwent forward-backward translation to verify linguistic equivalence in Hindi, and a pilot study conducted with 30 Gen Z respondents confirmed item clarity and adequate initial scale reliability (Cronbach's alpha > 0.80 for all constructs).

4.4. Demographic Profile of Respondents

Table 1 presents the socio-demographic characteristics of the 280 study respondents.

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	136	48.6
	Female	138	49.3
	Non-binary / Prefer not to say	6	2.1
Age Group	18-20 years	98	35.0
	21-23 years	112	40.0
	24-27 years	70	25.0
Monthly Household Income	Below INR 30,000	54	19.3
	INR 30,001-60,000	89	31.8
	INR 60,001-1,00,000	86	30.7
	Above INR 1,00,000	51	18.2
Educational Level	Undergraduate	161	57.5
	Postgraduate	102	36.4
	Diploma / Other	17	6.1

5. Data Analysis Techniques

Data were analysed in three sequential stages. First, descriptive statistics were computed to characterise respondents and summarise construct-level scores. Second, confirmatory factor analysis (CFA) was executed in AMOS 26.0 to assess the psychometric properties of the measurement model, including Cronbach's alpha, composite reliability (CR), average variance extracted (AVE), and discriminant validity via the Fornell-Larcker criterion. Third, the full structural equation model was estimated to test hypothesised paths and evaluate overall model fit using multiple indices: chi-square/df, CFI, TLI, RMSEA, and SRMR. Supplementary multiple linear regression was conducted in SPSS 27.0 to corroborate SEM findings and quantify the relative explanatory contribution of each green branding dimension. Mediation analysis for H5 employed Hayes' (2018) PROCESS macro (Model 4) with 5,000 bootstrap resamples and bias-corrected 95% confidence intervals.

5.1. Descriptive Statistics

Table 2 presents the means, standard deviations, and reliability coefficients for all study constructs. Green brand trust registered the highest mean score ($M = 3.91$, $SD = 0.67$), indicating that respondents held relatively positive evaluations of trusted green brands. Sustainable purchasing decisions ($M = 3.78$, $SD = 0.71$) and eco-label credibility ($M = 3.72$, $SD = 0.74$) also reflected above-neutral levels, collectively suggesting a moderate-to-high orientation towards eco-conscious consumption within the sample. All Cronbach's alpha values exceeded the minimum acceptable threshold of 0.70, confirming internal consistency of the measurement scales.

Table 2. Descriptive Statistics and Reliability Coefficients (N = 280)

Construct	N	Mean	SD	Cronbach's Alpha
Eco-Label Credibility (ELC)	280	3.72	0.74	0.881
Green Brand Image (GBI)	280	3.64	0.79	0.876

Environmental Advertising Appeal (EAA)	280	3.55	0.82	0.863
Green Brand Trust (GBT)	280	3.91	0.67	0.912
Sustainable Purchasing Decisions (SPD)	280	3.78	0.71	0.894

5.2. Measurement Model: Reliability and Validity

CFA results confirmed satisfactory reliability and validity across all constructs. Composite reliability (CR) values ranged from 0.871 to 0.926, exceeding the recommended threshold of 0.70 (Hair et al., 2019). Average variance extracted (AVE) values ranged from 0.527 to 0.619, each exceeding the 0.50 criterion, establishing convergent validity. Discriminant validity was verified using the Fornell-Larcker criterion: for each construct, the square root of its AVE exceeded its correlations with all other constructs. All standardised factor loadings were significant at $p < 0.001$ and ranged from 0.63 to 0.88, supporting the item-level validity of the measurement model.

Table 3. Construct Reliability and Validity Indices

Construct	CR	AVE	MSV	MaxR(H)
Eco-Label Credibility	0.893	0.541	0.312	0.912
Green Brand Image	0.871	0.527	0.298	0.889
Environmental Advertising Appeal	0.879	0.535	0.276	0.897
Green Brand Trust	0.926	0.619	0.334	0.941
Sustainable Purchasing Decisions	0.901	0.573	0.301	0.918

CR = Composite Reliability; AVE = Average Variance Extracted; MSV = Maximum Shared Variance; MaxR(H) = Maximum Reliability.

Overall measurement model fit was acceptable: chi-square/df = 2.34; CFI = 0.964; TLI = 0.958; RMSEA = 0.049 [90% CI: 0.038, 0.061]; SRMR = 0.052. These values collectively satisfy the conventional benchmarks for adequate model fit recommended by Hu and Bentler (1999) and Hair et al. (2019).

5.3. Structural Model and Hypothesis Testing

The full structural model demonstrated acceptable overall fit: chi-square/df = 2.51; CFI = 0.957; TLI = 0.951; RMSEA = 0.054 [90% CI: 0.043, 0.066]; SRMR = 0.058. Table 4 presents the standardised path coefficients, standard errors, t-values, and hypothesis outcomes for all five hypothesised relationships.

Table 4. Structural Path Coefficients and Hypothesis Testing Results

Hypothesis / Path	Beta	SE	t-value	Decision
H1: ELC -> SPD	0.33	0.052	6.35***	Supported
H2: GBI -> SPD	0.24	0.061	3.93***	Supported
H3: EAA -> SPD	0.19	0.058	3.28**	Supported
H4: GBT -> SPD	0.41	0.049	8.37***	Supported
H5: ELC -> GBT -> SPD (Indirect)	0.14	0.038	3.68***	Partially Supported

Note. ELC = Eco-Label Credibility; GBI = Green Brand Image; EAA = Environmental Advertising Appeal; GBT = Green Brand Trust; SPD = Sustainable Purchasing Decisions. ** $p < 0.01$; *** $p < 0.001$. Bootstrap 95% CI for mediation (H5): [0.068, 0.223]. R^2 (SPD) = 0.687.

All four direct path hypotheses (H1-H4) were supported at the 0.01 level or better. Green brand trust exerted the strongest influence on sustainable purchasing decisions ($\beta = 0.41$, $t = 8.37$, $p < 0.001$), followed by eco-label credibility ($\beta = 0.33$, $t = 6.35$, $p < 0.001$), green brand image ($\beta = 0.24$, $t = 3.93$, $p < 0.001$), and environmental advertising appeal ($\beta = 0.19$, $t = 3.28$, $p < 0.01$). Collectively, the four green branding dimensions explained 68.7% of the variance in sustainable purchasing decisions ($R^2 = 0.687$). Mediation analysis confirmed a significant indirect effect of eco-label credibility on sustainable purchasing decisions through green brand trust (indirect effect = 0.14; 95% Bootstrap CI [0.068, 0.223], $p < 0.001$). Since the direct effect of eco-label credibility remained statistically significant after inclusion of the mediator, partial mediation was concluded for H5, consistent with Baron and Kenny's (1986) criteria.

5.4. Multiple Regression Corroboration

Ordinary least squares multiple regression with sustainable purchasing decisions as the dependent variable corroborated the SEM findings. The overall regression model was statistically significant: $F(4, 275) = 149.82$, $p < 0.001$; $R^2 = 0.685$; Adjusted $R^2 = 0.680$. Variance Inflation Factor (VIF) values ranged from 1.43 to 2.11, well below the conservative threshold of 5.0, ruling out problematic multicollinearity among predictors. Standardised beta coefficients mirrored the SEM path estimates closely: green brand trust ($\beta = 0.40$, $p < 0.001$) and eco-label credibility ($\beta = 0.32$, $p < 0.001$) were the dominant predictors, followed by green brand image ($\beta = 0.23$, $p < 0.001$) and environmental advertising appeal ($\beta = 0.18$, $p < 0.01$).

6. Discussion

6.1. The Primacy of Green Brand Trust

The finding that green brand trust constitutes the strongest predictor of sustainable purchasing decisions among Gen Z consumers ($\beta = 0.41$) is both theoretically robust and practically significant. This result aligns closely with [31] who positioned trust as the cornerstone of green brand equity, and with [32] who demonstrated the centrality of trust in the green brand-purchase intention relationship across multiple consumer segments. For Generation Z specifically, a cohort characterised by heightened vigilance towards corporate greenwashing and an ingrained habit of cross-checking brand claims through digital and peer-based information channels, trust is not merely a desirable brand attribute but a prerequisite for purchase consideration [33]. This finding carries important strategic implications for green brand managers. Companies cannot rely on environmental product claims, green packaging aesthetics, or aspirational ecological imagery alone to win over Gen Z consumers. They must invest in building sustained credibility through transparent and independently verified environmental reporting, rigorous third-party certifications, and authentic corporate environmental commitments that withstand the scrutiny of a generation accustomed to digital investigation and peer validation [34]. Brand actions, not brand statements appear to be the primary currency of trust with this cohort.

6.2. Eco-Label Credibility: A Dual Pathway to Purchase

Eco-label credibility emerged as the second most influential direct predictor of sustainable purchasing decisions ($\beta = 0.33$) and was further shown to exert a significant indirect effect through green brand trust (H5: indirect effect = 0.14), confirming a dual pathway model of eco-label influence. This finding builds on and extends the work of [35] who established that credible eco-labels reduce informational uncertainty and reinforce consumer confidence in the ecological integrity of green products. The partial mediation finding (H5) enriches this understanding by revealing that eco-label credibility also operates through trust formation a psychologically deeper mechanism that sustains long-term green purchasing commitment rather than merely triggering one-off purchase decisions. In the Indian context, where a proliferation of self-declared, unverified green labels has generated considerable consumer confusion and skepticism [36], these findings highlight the critical commercial

value of standardised, government-backed, or internationally recognised eco-certification schemes. Marketers should prominently communicate the verification credentials and institutional backing of eco-labels across digital touchpoints and product packaging, leveraging the transparency that Gen Z consumers expect and reward with their purchasing power.

6.3. Green Brand Image and Environmental Advertising Appeal

While green brand image ($\beta = 0.24$) and environmental advertising appeal ($\beta = 0.19$) both exerted statistically significant effects on sustainable purchasing decisions, their influence was comparatively more moderate. The positive effect of green brand image corroborates [37] brand equity framework by demonstrating that strong environmental associations embedded in a brand's identity contribute meaningfully to purchase motivation even when controlling for trust and label credibility. This suggests that cultivating a coherent, values-aligned green brand identity remains a worthwhile long-term brand-building investment for companies targeting environmentally conscious consumers. The relatively weaker but still significant effect of environmental advertising appeal warrants particular attention given its managerial implications. Gen Z's well-documented scepticism towards traditional advertising and their preference for peer recommendations, influencer content, and user-generated reviews over corporate-controlled advertising narratives may partially account for the attenuated advertising effect [38]. These findings suggest that while environmental advertising remains a necessary component of green brand communication, it functions more effectively as a complement to, rather than a substitute for, credibility-building and trust-fostering brand initiatives.

6.4. Theoretical Contributions

This study makes several notable contributions to the green marketing and consumer behaviour literature. First, it extends the application of the integrated TPB-S-O-R theoretical framework to the specific and underexplored context of Gen Z sustainable consumption in an emerging economy, addressing a gap articulated by [39]. Second, the study advances a comprehensive, multi-dimensional green branding model that simultaneously captures four distinct dimensions of green branding and their differential direct effects on sustainable purchasing, responding to scholarly calls for integrative frameworks in green marketing research [40]. Third, the establishment of partial mediation via green brand trust enriches theoretical understanding of the psychological pathways through which eco-label credibility exerts its influence on Gen Z purchase behaviour – a finding with implications for both attitude formation and behaviour change theories in the domain of sustainable consumption.

7. Conclusion, Implications, and Limitations

7.1. Conclusions and Managerial Implications

This study empirically examined the influence of four dimensions of green branding on the sustainable purchasing decisions of 280 Generation Z consumers in India, employing SEM and multiple regression within an integrated TPB-S-O-R theoretical framework. The findings confirm that green brand trust and eco-label credibility are the most powerful drivers of sustainable purchasing decisions in this segment, while green brand image and environmental advertising appeal provide significant but secondary contributions. The overall model accounted for 68.7% of the variance in sustainable purchasing decisions, a high explanatory ratio that speaks to the strong collective influence of green branding on Gen Z consumer behaviour. For brand managers and marketing strategists, the present findings offer several actionable recommendations. First, building and sustaining green brand trust should be positioned as a strategic priority, pursued through transparent environmental disclosure, third-party sustainability audits, consistent ecological commitments embedded across the brand's entire value chain, and the amplification of authentic sustainability stories through digital media. Second, brands should invest in internationally credible, third-party verified eco-labelling and ensure that the verification credentials of eco-labels are clearly communicated across digital and physical purchase environments. Third, green brand image should be developed holistically through genuine corporate environmental initiatives, employee sustainability advocacy, and community-level ecological engagement, not

merely through advertising campaigns. Fourth, environmental advertising designed for Gen Z should be reimagined for the digital ecosystems this cohort inhabits, leveraging short-form video content, social media storytelling, and sustainability-committed micro-influencers rather than conventional mass media formats.

7.2. Limitations and Directions for Future Research

This study is not without limitations. The cross-sectional survey design precludes the establishment of strict causal inference over time; longitudinal research designs are encouraged in future studies to track the evolution of green branding effects on Gen Z behaviour as both the cohort matures and the green marketing landscape develops. The use of purposive and snowball sampling, while appropriate for accessing the target population, may introduce self-selection bias and limit the generalisability of findings beyond the sampled urban and semi-urban Indian contexts. Future research employing probability-based sampling across diverse geographic regions and socio-economic strata would enhance representativeness. Furthermore, while this study focuses on four green branding dimensions, future research could explore additional mediating and moderating variables, including environmental self-identity, moral norms, peer influence, and social media engagement intensity that may further illuminate the psychological and social mechanisms linking green branding to Gen Z purchase behaviour. Cross-national comparative studies involving multiple emerging economies would enrich the theoretical scope of findings. The integration of qualitative methods such as in-depth interviews or focus groups with Gen Z consumers could also yield richer insights into the subjective meanings, trust heuristics, and social dynamics that underlie their green brand evaluations and purchasing decisions.

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