JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Decoding the Digital Green Consumer

Intersections of Marketing, Platform Design, and Sustainable Choices

Ms. Sanika Shankar Chalke
Post-Graduation student, V. G. Vaze College, Mumbai University sanikachalke03@gmail.com

Mrs. Pournima Bhangale
Assistant Professor, V. G. Vaze College, Mumbai University ppbhangale@yahoo.com

Abstract

The rise of sustainability concerns and rapid digitalization has brought new challenges and opportunities for understanding green consumer behaviour. While prior research highlights the role of digital marketing, brand affect, and smart technologies in shaping sustainable consumption, the persistent intention–behaviour gap and consumer heterogeneity remain unresolved. This paper seeks to decode the digital green consumer by integrating theoretical insights with exploratory evidence. A survey (50 respondents) was conducted to examine consumer awareness, intentions, and actual behaviours toward eco-friendly products, revealing a clear mismatch between stated preferences and purchasing actions. Complementing this, case studies of Amazon and Flipkart illustrate how leading e-commerce platforms employ strategies such as eco-labelling, curated green stores, sustainable logistics, and digital storytelling. Drawing from frameworks such as the Theory of Planned Behaviour, Value–Belief–Norm theory, and digital nudging, we propose a conceptual model linking digital stimuli, mediators (trust, awareness, affect), and outcomes, moderated by consumer segmentation and context. The study concludes with recommendations for marketers and policymakers to leverage digital platforms as catalysts for sustainable consumption while ensuring transparency and trust.

Keywords: Digital green consumer; Sustainability; Eco-labels; Digital marketing; Consumer trust; Intention–behaviour gap

1. Introduction

Sustainability is a defining challenge of the twenty–first century, driven by climate change, ecological degradation, and resource depletion. Consumer behaviour is central to this transition, as everyday choices shape both market demand and environmental outcomes. Digital technologies and marketing platforms increasingly influence these choices by reshaping awareness, trust, and purchase decisions.

This study seeks to decode the digital green consumer by addressing key questions: How do digital channels

and platform initiatives influence sustainable behaviour?

How heterogeneous are consumers in their motivations and practices? Why does the intention–behaviour gap persist?

To explore these issues, we also examine sustainability initiatives of Amazon and Flipkart as case studies, before proposing a conceptual model and recommendations for marketers and policymakers.

2. Objectives

This study aims to decode the digital green consumer by:

2.1 Assessing how digital channels, technologies, and platform initiatives (Amazon, Flipkart) influence awareness, trust, and sustainable purchase behaviour.

2.2 Analysing consumer heterogeneity through segmentation and examining the persistence of the intention–behaviour gap.

2.3 Proposing a conceptual model of digital green consumer behaviour with practical recommendations for marketers and policymakers.

3. Theoretical and Conceptual Framework

3.1 Theoretical Foundations

- Theory of Planned Behaviour [2]: Links attitudes, norms, and control to pro- environmental intention but fails to fully explain the intention–behavior gap [4][7].
- Value–Belief–Norm Theory: Ecological values drive moral norms for sustainable actions; both affective and cognitive brand factors also matter [1].
- Stimulus–Organism–Response Framework: Digital cues (eco-labels, influencers, campaigns) shape trust, awareness, or skepticism, leading to outcomes [6].
- Signalling Theory: Eco-labels, certifications, and blockchain proofs reduce information asymmetry and enhance credibility [3].
- Digital Nudging: Defaults, recommendations, and green badges subtly guide sustainable choices without restricting freedom.

3.2 Gaps in Literature

- Intention–Behaviour Gap: Pro-environmental intentions often fail to convert into purchases [7].
- Underexplored Mediators: Factors like trust, digital literacy, and credibility remain insufficiently studied.
- Platform Strategies: Limited research links sustainability initiatives of firms (e.g., Amazon, Flipkart) with consumer behavior.
- Neglected Segmentation: Green consumers are often treated as uniform, overlooking diverse subgroups with distinct motivations.

3.3 Proposed Conceptual Model

Building on these foundations, this study proposes a conceptual model for decoding the digital green consumer.

- **Inputs (Digital Stimuli):** Social media ads, influencer endorsements, eco- labels, personalized product recommendations, and platform sustainability campaigns.
- **Mediators (Consumer States):** Trust in eco-claims, awareness/familiarity, affective attachment, perceived effectiveness of digital channels.
- **Outcomes:** Behavioral intention and actual eco-friendly purchase behavior.
- **Moderators (Contextual Factors):** Consumer segment (activists, pragmatists, skeptics), digital literacy, product category, and platform features.

This model integrates consumer psychology with digital marketing affordances, positioning trust and awareness as key mechanisms that can narrow the intention– behavior gap.

Conceptual Model

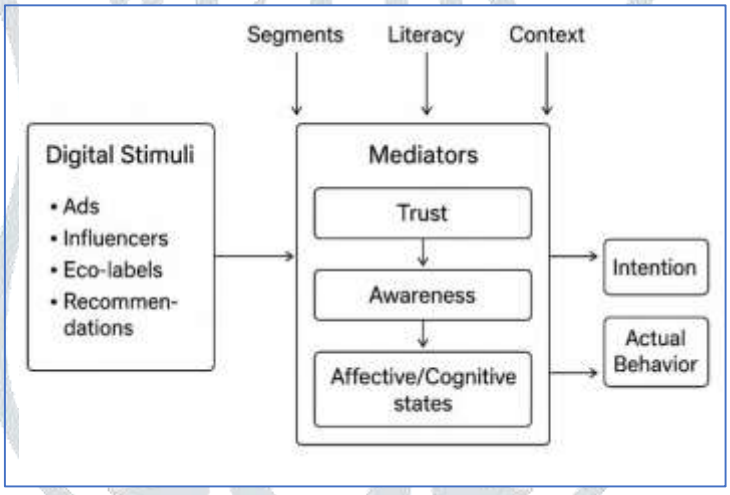

Figure 1: Conceptual Model of the Digital Green Consumer

3.4 Research Propositions

Based on this framework, we advance the following propositions:

- **P1:** Greater trust in eco-claims significantly increases the likelihood of actual eco-friendly purchases.
- **P2:** Familiarity and awareness strengthen the link between green purchase intention and behavior.
- **P3:** Perceived effectiveness of digital influence channels (social media, influencers, eco-labels) positively influences purchase intention.
- **P4:** Platform-level digital nudges (eco-badges, recommendations, curated stores) have a stronger impact on pragmatist consumers than on skeptics.
- **P5:** The intention–behavior gap is minimized when both trust and digital literacy are high.

4. Methodology

4.1 Design: A mixed-method exploratory approach combining an online survey with case studies of Amazon and Flipkart. This dual strategy triangulates consumer perspectives with firm practices for richer insights.

4.2 Survey: Captured awareness, attitudes, trust, perceived effectiveness of digital channels, and self-reported green purchasing.

- Instrumentation: Categorical and Likert-scale items.
- Awareness (4-point scale)
- Importance of sustainability (5-point Likert)
- Effectiveness of digital channels (5 items; Cronbach's $\alpha = 0.81$)
- Trust in eco-claims (4-point scale)
- Purchase frequency (4-point scale)
- Demographics (age, gender, platform use, barriers, open-ended feedback)

4.3 Sample: 50 valid responses (88% aged 18–24; 56% female, 44% male), reflecting digitally active consumers.

4.4 Case Studies: Amazon and Flipkart examined for eco-labeling, recommendation systems, curated stores, and green product campaigns.

Table 1: Survey Design Summary

Component	Description
Objective	To assess consumer awareness, trust, and behavior toward digital green products.
Sample size	50 respondents
Age distribution	88% between 18–24, 8% between 25–33, 4% others
Gender distribution	56% Female, 44% Male
Instrument	Structured Google Form survey (11 close-ended + 2 open-ended questions)
Measurement scales	5-point Likert scales for importance, effectiveness, trust, purchase frequency
Data analysis tools	Descriptive statistics, correlation, reliability (Cronbach's α), t-tests, cluster analysis (k-means) using R
Key variables	Familiarity, Importance of sustainability, Trust in eco-claims, Effectiveness of digital channels, Purchase frequency

4.5 Data Sources

Secondary data were drawn from corporate websites, press releases, sustainability reports, and media coverage. Platform features were coded into four themes:

- Eco-labeling and credibility signals
- Digital nudges and recommendation systems
- Sustainability communication and campaigns
- Logistics and packaging innovations

4.6 Data Analysis

Thematic analysis identified patterns across platforms, which were then compared with survey results to capture convergences and divergences between consumer perceptions and firm strategies.

4.7 Integration of Methods

The mixed-method approach combines consumer insights from the survey with firm strategies from case studies, informing the conceptual framework and offering both empirical grounding and practical implications.

5. Analysis

5.1 Survey Findings

The survey of 50 respondents provides insights into consumer awareness, trust, and behavior regarding green products in digital contexts.

5.1.1 Demographic Profile

- **Age:** Majority (88%) were aged **18–24**, followed by 25–33 (8%).
- **Gender:** Fairly balanced — **56% female, 44% male**. This reflects a digitally active consumer base, suitable for examining online sustainability engagement.

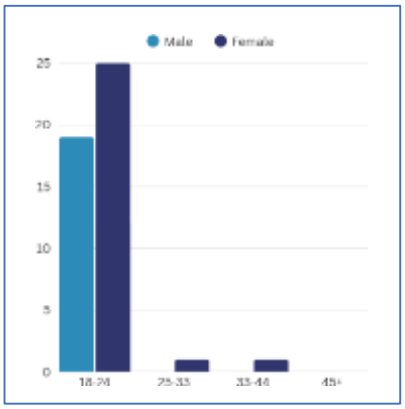

Figure 2: Age and Gender Distribution

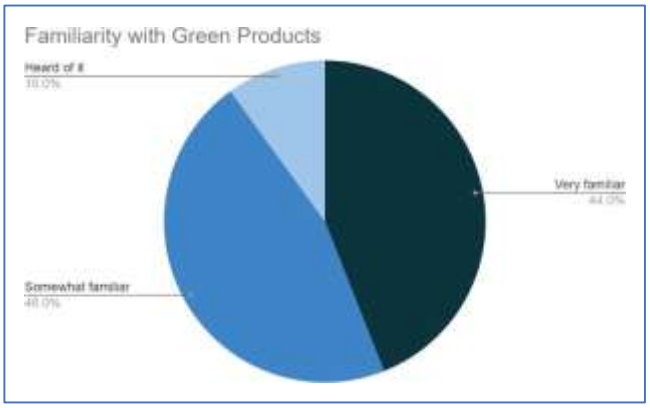

Figure 3: Familiarity and Importance of Sustainability

5.1.2 Awareness and Importance of Sustainability

- Average familiarity with green products was **3.34 (out of 4)**, suggesting respondents are largely aware of the concept.
- Environmental sustainability was rated as **important or very important** by **80%** of participants (mean = 4.18/5).

5.1.3 Purchase Behavior

- **66%** reported buying eco-friendly products **sometimes or frequently**.
- However, barriers cited included **high prices, lack of trust, and limited availability online**, echoing prior literature on structural challenges to sustainable consumption.

5.1.4 Trust in Digital Eco-claims

- Only **12% trusted eco-claims completely**,
- while **62% expressed doubts or partial trust**,
- and **26% rarely/never trusted** such claims. This indicates a credibility gap in digital green marketing.

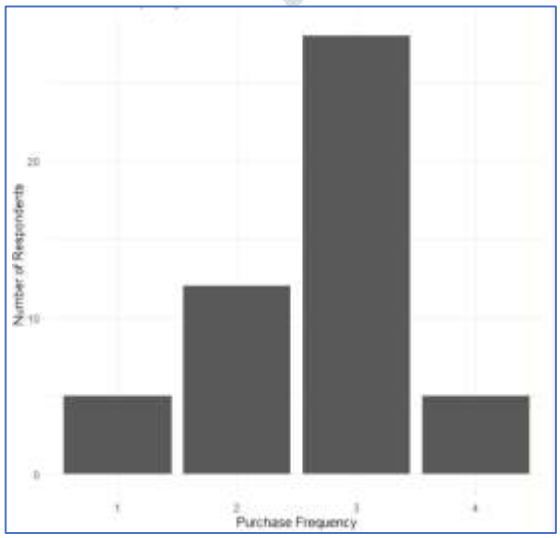

Figure 4:Purchase Frequency vs. Trust in Eco-claims (stacked bar or clustered bar chart)

5.1.5 Effectiveness of Digital Channels

Reliability testing confirmed internal consistency (Cronbach's α = **0.81**). Average perceived effectiveness scores (out of 5):

- **Social media ads:** 3.2
- **Influencers/bloggers:** 3.1
- **Brand websites:** 2.8
- **Email marketing:** 2.2
- **Eco-labels/ratings:** 2.8

Social media and influencer campaigns emerged as relatively more effective, though eco-labels still play a credibility-enhancing role.

Table 2:Reliability of Effectiveness Scale (Cronbach's Alpha results)

Item	Mean	SD	Item-Total Correlation	Cronbach's Alpha if Item Deleted
Social Media Ads	3.2	1.4	0.62	0.77
Influencers	3.1	1.4	0.52	0.80
Websites	2.8	1.2	0.76	0.74
Emails	2.2	1.3	0.54	0.80
Ecological Labels	2.8	1.4	0.60	0.78

5.1.6 Correlation Analysis

Table 3: Correlation Matrix of Key Variables

Variable	Familiarity	Importance	Trust	Effectiveness	Purchase Frequency
Familiarity	1	0.22	-0.03	-0.02	0.38*
Importance	0.22	1	0.28*	0.29*	0.34*
Trust	-0.03	0.28*	1	0.31*	0.27
Effectiveness	-0.02	0.29*	0.31*	1	0.25
Purchase Frequency	0.38*	0.34*	0.27	0.25	1

- **Purchase frequency** was positively correlated with:
  - Familiarity (r = 0.38, p < .01)
  - Importance of sustainability (r = 0.34, p < .05)
  - Trust in eco-claims (r = 0.27, ns)
  - Perceived channel effectiveness (r = 0.25, ns)
- Importance also correlated with trust (r = 0.28, p < .05). This suggests awareness and perceived relevance are stronger drivers of purchase than trust alone.

5.1.7 Cluster Analysis

K-means clustering revealed **three distinct consumer segments**:

1. **Sceptical Low-Engagers —** low awareness (2.6), low importance (3.1), low trust (2.4), and low purchase frequency (2.0).

2. **Committed Green Consumers** – high importance (4.9), higher trust (3.2), and highest purchase frequency (3.9).

3. **Aware but Selective Consumers** – high familiarity (3.7), medium trust (2.7), moderate purchasing (3.1), but low effectiveness perception of digital cues (2.3).

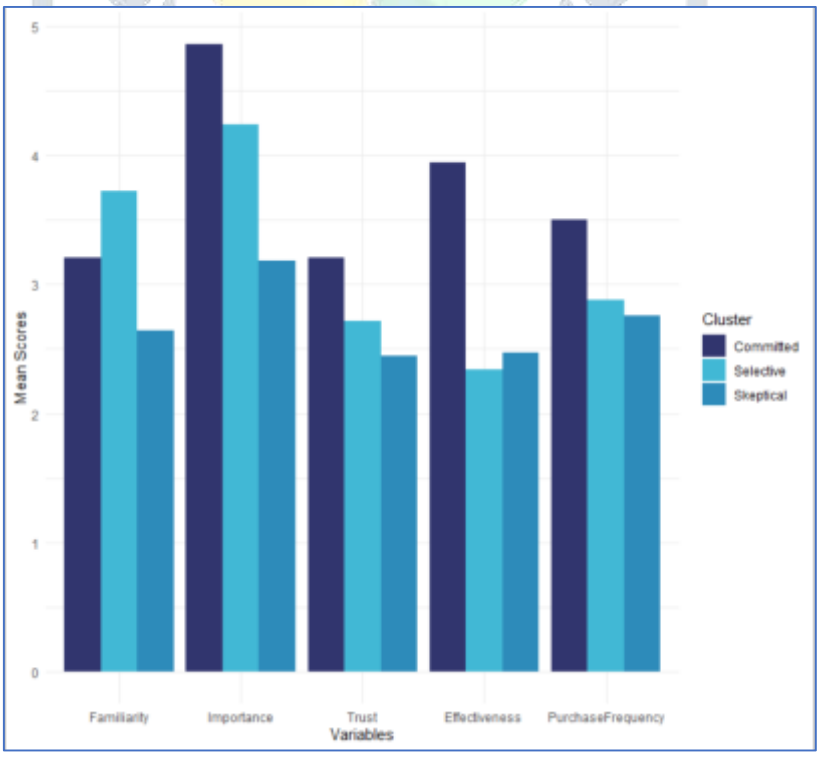

Figure 5:Consumer Segmentation via K-means

This segmentation shows heterogeneity in digital green consumption—some consumers are engaged activists, others pragmatic or doubtful.

Table 4:Cluster Means

Cluster	Familiarity	Importance	Trust	Effectiveness	Purchase Frequency	Label
1	2.64	3.18	2.45	2.47	2.76	Skeptical
2	3.21	4.86	3.21	3.94	3.50	Committed
3	3.72	4.24	2.72	2.34	2.88	Selective

5.2 Case Study Analysis

5.2.1 Amazon (India)

- Eco-labelling: "Climate Pledge Friendly" badge with third-party certifications.
- Recommendations: AI-driven eco-friendly suggestions at search/checkout.
- Campaigns: Dedicated sustainability pages.
- Logistics: Net-zero 2040 pledge, renewable-energy warehouses, eco- packaging.
- Observation: Strong mix of credibility cues and digital nudges addressing trust gaps.

5.2.2 Flipkart

- Green Store: Curated eco-friendly collections.
- Campaigns: NGO and influencer collaborations, especially during festivals.
- Packaging: Recyclable and paper-based materials.
- Trust Signals: Limited eco-label use compared to Amazon.
- Observation: Relies on visibility and campaigns but weaker on eco-label credibility.

5.2.3 Integrated Insights

Survey vs. Platforms: Trust gap persists; Amazon addresses it via badges, Flipkart via campaigns. Both use green stores, but affordability remains an issue.

Segment Fit:

- Committed Greens → Amazon's eco-labels.
- Aware Selectives → Flipkart's campaigns.
- Sceptical Low-Engagers → Unreached, need education and trust-building.

6. Discussion

The study confirms the persistence of the intention–behavior gap [7]: young, digitally active consumers value sustainability but purchases remain inconsistent due to high prices, limited availability, and skepticism. Segmentation shows three distinct groups— Committed Consumers (VBN: values-driven behavior), Aware

but Selective (TPB:attitudes moderated by cost/trust), and Skeptical Low-Engagers (intent without action; [3]).

Trust deficits are central. Few respondents fully trust eco-claims, echoing Signaling Theory. Amazon addresses this with third-party eco-labels like "Climate Pledge Friendly," while Flipkart emphasizes campaigns and visibility—effective for awareness but weaker on credibility. This indicates digital nudges work best when reinforced with credible signals.

Digital literacy and platform design also shape outcomes. Social media and influencers were rated effective but did not always drive purchases. Segment-specific tailoring is needed: eco-labels resonate with Committed Consumers, campaigns with Selectives, while Low-Engagers require education and incentives. Overall, findings extend the S– O–R framework, showing that digital stimuli (ads, labels, campaigns) influence behavior only through mediators like trust, awareness, and values, moderated by price sensitivity and literacy.

Table 5: Alignment of Consumer Segments with Platform Strategies

Consumer Segment	Key Characteristics	Best Addressed By	Gaps Remaining
Committed Green Consumers	High importance of sustainability, higher trust, frequent purchasers	**Amazon** (eco-labels, verified signals, recommendation nudges)	Pricing barriers; need affordability measures
Aware but Selective Consumers	High awareness, moderate trust, selective purchase behavior, influenced by campaigns	**Flipkart** (influencer campaigns, Green Store, festive promotions)	Weak verification signals; potential trust gap
Skeptical Low-Engagers	Low awareness, low trust, rare purchases, indifferent to claims	Neither (currently underserved)	Need education, gamification, incentives to build trust and interest

7. Conclusion

This study decoded the digital green consumer through a survey and case studies of Amazon and Flipkart. Findings show that while young, digitally active consumers value sustainability, purchasing is hindered by high costs, limited availability, and low trust in eco-claims. Consumers are heterogeneous—committed activists, selective pragmatists, and skeptical low-engagers. Amazon addresses trust via eco-labels and algorithmic nudges, while Flipkart builds awareness through campaigns, yet skeptics remain underserved. The study advances the S–O–R framework by highlighting trust, awareness, and values as key mediators, moderated by literacy, product type, and platform strategies, while extending Signaling Theory by confirming the stronger

role of credible eco-labels over mere promotional messaging.

8. Recommendations & Future Research

Businesses/Platforms: Strengthen trust via eco-labels and transparency; tailor strategies to segments (activists, selective, skeptics); address affordability; embed sustainability across the value chain.

Policymakers: Enforce verified eco-labels, promote digital literacy, and provide incentives for affordable green products.

Consumers: Critically evaluate sustainability claims and demand brand transparency.

Future Research: Expand sample diversity, use behavioral data, test digital nudges experimentally, compare industries, and explore emerging technologies (AI, blockchain, VR) in shaping green consumption.

References

[1] Afifa, K. S., Haider, S. W., Issa, A., Raza, A., & Altaf, F. (2025). Pathway to green consumerism: Decoding the interplay of affective and cognitive green brand factors. *Journal of Sustainable Marketing*, 1–20. https://doi.org/10.51300/jsm-2025-132

[2] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. https://doi.org/10.1016/0749- 5978(91)90020-T

[3] Alkhatib, S., Kecskés, P., & Keller, V. (2023). Green marketing in the digital age: A systematic literature review. *Sustainability*, *15*(16), 12369. https://doi.org/10.3390/su151612369

[4] Baltacı, A., Yilmaz, M., & Kartal, C. (2024). The relationships between the multidimensional planned behavior model, green brand awareness, green marketing activities, and purchase intention. *Brain and Behavior*, *14*(2), e3258. https://doi.org/10.1002/brb3.3258

[5] Bocken, N. M. P., Niessen, L., Gossen, M., Das, A., & Zielińska, M. (2025). Marketing in the Anthropocene: A future agenda for research and practice. *AMS Review*. https://doi.org/10.1007/s13162-025-00300-5

[6] Camilleri, M. A., Cricelli, L., Mauriello, R., & Strazzullo, S. (2023). Consumer perceptions of sustainable products: A systematic literature review. *Sustainability*, *15*(11), 8923. https://doi.org/10.3390/su15118923

[7] Cheema, S., Durrani, A. B., Khokhar, M. F., & Pasha, A. T. (2021). The effects of consumer attitude on green purchase intention: A meta-analytic path analysis. *Journal of Business Research, 132*, 732–743. https://doi.org/10.1016/j.jbusres.2020.10.053

[8] Kamboj, S., & Rahman, Z. (2017). Market orientation, marketing capabilities and sustainable innovation:

The mediating role of sustainable consumption and competitive advantage. *Management Research Review, 40*(6), 698–724. https://doi.org/10.1108/MRR-09-2014-0225

Wikipedia contributors. (2025). *Stimulus–organism–response model*. In *Wikipedia*. https://en.wikipedia.org/wiki/Stimulus%E2%80%93organism%E2%80%93response_ model

Wikipedia contributors. (2025). *Signaling theory*. In *Wikipedia*. https://en.wikipedia.org/wiki/Signalling_theory

Wikipedia contributors. (2025). *Digital nudging*. In *Wikipedia*. https://en.wikipedia.org/wiki/Digital_nudge