

Driving Green Choices: The Role of Sustainable E-Marketing in Shaping Consumer Buying Behaviour

Mrs. Shazia Tabasum¹, Dr. Ramesh Chandrahassa^{2*}

¹Research Scholar Institute of Management Studies, Davanagere University, Davanagere, Karnataka, India, jiyashaziya55@gmail.com,

^{2*} Assistant Professor Institute of Management Studies, Davanagere University, Davanagere, Karnataka, India, drrcmay@gmail.com,

***Corresponding Author:** Dr. Ramesh Chandrahassa

*Email: drrcmay@gmail.com

Abstract: This study examines how sustainable e-marketing strategies influence consumer buying behavior, drawing on the Theory of Planned Behavior (TPB) and the Stimulus–Organism–Response (S-O-R) model. Using primary data from 160 respondents and analysing it through Structural Equation Modeling (SEM), the research investigates the roles of green trust, eco-brand communication, and environmental awareness in shaping purchase intentions. The results confirm that e-marketing significantly impacts green purchase behavior, with green trust mediating and environmental awareness moderating this relationship. The study extends TPB by incorporating digital sustainability elements and offers practical insights for marketers, highlighting the need for transparent, personalized, and platform-specific green messaging to engage Gen Z and Millennials. As sustainability becomes integral to consumer decision-making, this paper emphasizes the strategic importance of integrating eco-values into digital marketing.

Keywords: Sustainable marketing, green consumerism, e-marketing, consumer behavior, purchase intention, environmental sustainability, digital branding

1. Introduction

Sustainability has become a global imperative in the face of climate change, resource depletion, and growing environmental consciousness among consumers. As societies grapple with ecological challenges, consumer behavior is undergoing a significant transformation, shifting from traditional consumption patterns to more responsible and sustainable choices. Simultaneously, the proliferation of digital technologies has revolutionized marketing practices, giving rise to e-marketing as a dominant mode of consumer engagement.

In this digital age, businesses are increasingly leveraging online platforms to not only promote their products but also communicate their environmental commitments. Traditional marketing strategies have long prioritized the "4Ps" - product, price, place, and promotion but contemporary approaches are now integrating a fifth dimension: planet. This evolution is evident in sustainable e-marketing, which merges digital communication techniques with eco-friendly narratives to promote green products and behaviors.

While the concept of green marketing has been well-documented in literature, the synergy between sustainability and e-marketing, and its specific influence on online consumer decision-making, remains relatively underexplored. Particularly in emerging markets where internet penetration is rising and environmental awareness is gaining momentum, understanding this intersection is both timely and essential.

This study seeks to investigate the role of sustainable e-marketing strategies in shaping consumer buying behavior. It explores how digital campaigns with eco-conscious messages impact consumer preferences, trust, and purchasing decisions in the context of sustainability.

Research Gap: Despite growing interest in sustainability and digital marketing, few empirical studies address how sustainable e-marketing strategies affect actual consumer buying behavior in digital spaces.

Objective:

- To examine the influence of sustainable e-marketing strategies on consumer purchase behavior.
- To assess consumer awareness and perception of green messages in digital marketing campaigns.
- To analyze the impact of trust in sustainability claims on consumers' intention to buy eco-friendly products online.

2. Literature Review

2.1 Sustainable Marketing and Consumer Behavior

Sustainable marketing refers to marketing practices that integrate environmental, social, and economic considerations into strategic decisions, aiming to create long-term value (Kotler et al., 2021). Unlike conventional marketing, which focuses primarily on profitability, sustainable marketing considers the broader impacts of consumption patterns. Recent studies have shown that when sustainability values are communicated effectively, they can positively influence consumer behavior (Gonzalez-Mansilla et al., 2021). However, the credibility and clarity of such messaging play a crucial role in shaping consumer trust and behavioral response (Biloslavo et al., 2020).

2.2 E-Marketing in the Digital Era

E-marketing has revolutionized the way brands communicate with consumers, using tools like SEO, social media, AI-based targeting, and influencer marketing. In the era of digital transformation, personalized green advertising and interactive content are increasingly used to engage eco-conscious consumers (Dwivedi et al., 2021). Businesses now leverage platforms like Instagram, YouTube, and sustainable blogs to build brand communities and promote ethical consumption (Rana et al., 2023). Furthermore, real-time analytics and AI enable marketers to assess consumer responses to sustainability campaigns and tailor their strategies accordingly (Gupta et al., 2022).

2.3 Green Consumerism and Digital Behavior

Green consumerism is characterized by consumers' preferences for products and services that are environmentally safe and socially responsible. The emergence of digital platforms has significantly influenced green purchasing behavior by providing transparency, traceability, and interactive engagement (Khan et al., 2022). Studies suggest that digital storytelling, eco-labels, and CSR campaigns significantly enhance green brand perception and consumer trust (Wang et al., 2021). In particular, Gen Z and Millennials are more inclined to respond positively to sustainable digital content, often sharing and endorsing brands that align with their values (Tanveer et al., 2023).

2.4 Theoretical Framework

This study is grounded in the following behavioral theories to explain how sustainable e-marketing influences consumer buying decisions:

- **Theory of Planned Behavior (TPB):** As proposed by Ajzen (1991), this theory asserts that consumer intentions are shaped by attitudes toward behavior, subjective norms, and perceived behavioral control. Recent studies confirm TPB's relevance in explaining green purchase intentions in digital contexts (Yadav & Pathak, 2021).
- **Stimulus-Organism-Response (S-O-R) Framework:** This model posits that external stimuli (such as green digital ads or sustainable product placements) influence internal psychological states (e.g., environmental concern, trust), which in turn affect behavioral responses (e.g., green purchasing) (Liu et al., 2020).

- **Value-Belief-Norm (VBN) Theory:** VBN suggests that individuals' environmental values and beliefs activate personal norms, leading to eco-friendly behavior. This theory has been widely used to understand ethical consumption patterns online (Han et al., 2021).

3. Conceptual Framework & Hypotheses

Independent Variables (IV):

- Green product promotions
- Eco-labeling and certification
- Sustainable brand storytelling

Mediator:

- Green Trust

Moderator:

- Environmental Awareness

Dependent Variable (DV):

- Consumer Buying Behavior (Purchase Intention + Behavior)

Hypotheses:

- H1: Sustainable e-marketing strategies positively influence consumer purchase intention.
- H2: Green trust mediates the relationship between sustainable e-marketing and buying behavior.
- H3: Environmental awareness moderates the effect of sustainable e-marketing on consumer buying behavior.

4. Methodology

Research Design: Quantitative and cross-sectional

Sample: 160 respondents from urban India, aged 18–45, who regularly engage in online shopping.

Data Collection: Online survey using Google Forms

Sampling Technique: Stratified random sampling across regions and age groups

Instrument: Structured questionnaire using a 5-point Likert scale

Measurement Scales:

- Green Trust (Chen, 2010)
- Environmental Awareness (Dunlap et al., 2000)
- Purchase Intention (Dodds et al., 1991)

Statistical Tools: SPSS 26.0 and SmartPLS 4.0 for SEM analysis

5. Results and Analysis

5.1 Descriptive Statistics

The demographic analysis of 160 valid responses revealed that the majority of participants belonged to the age group of 25–34 years, and all had either undergraduate or postgraduate qualifications. The sample represents a digitally active and environmentally aware population.

Table 1: Descriptive Statistics of Respondents

Variable	Category	Percentage
Age	18–24	22%
	25–34	41%
	35–44	25%
	45 and above	12%
Education	Undergraduate	61%
	Postgraduate	39%

Gender	Male	48%
	Female	52%

Source: Primary data

5.2 Reliability and Validity

All constructs in the study were tested for internal consistency and validity. The results show that all the items met acceptable thresholds:

Table 2: Reliability and Validity Statistics

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Sustainable E-Marketing	0.84	0.87	0.58
Green Trust	0.81	0.85	0.56
Environmental Awareness	0.78	0.83	0.55
Purchase Intention	0.86	0.89	0.61

Source: Primary data

All Cronbach's alpha values exceed 0.7, indicating high internal consistency. CR values are above 0.8, and AVE values are greater than 0.5, confirming convergent validity.

5.3 Structural Equation Modeling (SEM) Results

Using SEM (via SmartPLS or AMOS), the following hypotheses were tested:

- **H1:** Sustainable e-marketing positively influences purchase intention.
- **H2:** Green trust mediates the relationship between e-marketing and purchase intention.
- **H3:** Environmental awareness moderates the relationship between e-marketing and purchase intention.

Table 3: Hypothesis Testing Results

Hypothesis	Path	Coefficient	p-value	Result
H1	E-Marketing → Purchase Intention	0.54	< 0.01	Supported
H2	E-Marketing → Green Trust → Purchase Intention	Indirect Effect = 0.31	< 0.05	Supported
H3	E-Marketing × Environmental Awareness → Purchase Intention	0.27	< 0.05	Supported

Source: Primary data

5.4 Model Fit Summary

Table 4: Model Fit Indices

Fit Index	Value	Threshold
SRMR	0.057	< 0.08
Chi-square / df	1.92	< 3
CFI	0.94	> 0.90
RMSEA	0.045	< 0.06

Source: Primary data

The model meets all fit criteria, indicating a good fit between the hypothesized model and observed data.

Interpretation:

- A significant and positive path ($\beta = 0.54$) indicates that sustainable e-marketing strategies strongly impact consumer purchase intentions.
- Mediation analysis reveals that green trust partially explains the relationship, suggesting that consumers need to trust the brand's sustainability claims.
- Environmental awareness significantly enhances the effect of e-marketing on purchase intention, acting as a positive moderator.

6. Discussion

The findings reaffirm the relevance of the Theory of Planned Behavior (TPB) and Stimulus-Organism-Response (S-O-R) model, indicating that sustainable e-marketing significantly impacts consumer purchase intentions through the mediating role of green trust and the moderating effect of environmental awareness.

Consumers increasingly trust brands that exhibit transparency, authenticity, and consistent communication of green values. High environmental awareness strengthens the relationship between e-marketing efforts and purchase behavior, suggesting that informed consumers are more likely to respond to eco-friendly marketing.

This aligns with previous studies by Chen (2010) and Nguyen et al. (2020), emphasizing green trust and eco-labeling as key drivers. Additionally, the study suggests that interactive digital platforms, user-generated content, and influencer endorsements can enhance the visibility and credibility of green marketing campaigns.

The findings also highlight the shift from transactional to relational marketing, where long-term brand-consumer engagement, built on shared environmental values, is crucial for influencing sustainable purchasing decisions.

Marketers should:

- Leverage data-driven personalization to tailor green messages.
- Use social proof and certifications to strengthen green trust.
- Focus on educational content that raises environmental awareness and fosters pro-environmental norms.

Overall, sustainable e-marketing strategies, when aligned with consumer values and trust mechanisms, can effectively shape green buying behavior and support broader sustainability goals.

7. Theoretical and Managerial Implications

Theoretical Contributions

- **Extension of TPB Framework:** This study enriches the Theory of Planned Behavior by integrating digital sustainability components, such as green trust and online environmental messaging, into consumer behavior models.
- **Application of S-O-R in E-commerce:** It successfully contextualizes the Stimulus-Organism-Response (S-O-R) framework within digital retail environments, demonstrating how sustainable e-marketing (stimulus) influences consumer cognition (organism) and drives green purchase intentions (response).
- **Mediating and Moderating Insights:** The mediating role of green trust and the moderating effect of environmental awareness contribute to understanding complex consumer decision-making in sustainable online consumption.

Managerial Implications

- **Authenticity and Transparency:** Brands should focus on authentic, consistent, and transparent communication of their eco-initiatives to build trust and loyalty.
- **Content Strategy:** Use interactive and engaging content such as short videos, eco-infographics, and real customer stories to effectively convey sustainability messages.
- **Platform-Specific Targeting:** Emphasize personalized green messages tailored to the preferences of Gen Z and Millennials on platforms like Instagram, YouTube, Amazon, and Flipkart.
- **Green Trust Building:** Leverage third-party certifications, eco-labels, and user-generated content to reinforce credibility and foster consumer trust.
- **Behavioral Nudges:** Use digital nudging techniques (e.g., eco-savings calculators, green product badges) to influence real-time sustainable decision-making on e-commerce platforms.

These implications are valuable for both academic advancement and practitioners aiming to develop robust, evidence-based sustainable marketing strategies in the digital age.

8. Limitations and Future Research

- Geographic focus limited to India; future studies should expand cross-culturally
- Self-reported behavior may not always reflect actual behavior
- Future research could explore sector-wise comparisons (fashion, electronics, groceries)
- Longitudinal studies would help track behavioral change over time

9. Conclusion

Sustainable e-marketing strategies have emerged as pivotal drivers in influencing consumer buying behavior toward environmentally responsible choices. The findings of this study underscore the effectiveness of digital campaigns in fostering green trust, enhancing environmental awareness, and ultimately shaping purchase intentions. As sustainability becomes central to both consumer expectations and global business priorities, embedding eco-conscious messaging into digital marketing efforts is no longer optional, it is a strategic necessity.

Brands that embrace transparency, authenticity, and interactive engagement in their green communications stand to gain a competitive edge. Moreover, leveraging digital platforms to reach sustainability-conscious segments, especially Millennials and Gen Z, can further amplify the impact of such efforts.

In essence, sustainable e-marketing not only supports business growth but also contributes meaningfully to the broader sustainability agenda, including the UN's Sustainable Development Goals (particularly SDG 12: Responsible Consumption and Production). Future research may explore cross-cultural validation and the long-term behavioral impact of green digital marketing initiatives.

10. References

1. Akehurst, G., Afonso, C., & Martins Gonçalves, H. (2012). Re-examining green purchase behaviour and the green consumer profile: New evidences. *Management Decision*, 50(5), 972–988. <https://doi.org/10.1108/00251741211227726>
2. Chen, Y.-S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307–319. <https://doi.org/10.1007/s10551-009-0223-9>
3. Chen, Y.-S., & Chang, C.-H. (2013). Greenwash and green trust: The mediation effects of green consumer confusion and green perceived risk. *Journal of Business Ethics*, 114(3), 489–500. <https://doi.org/10.1007/s10551-012-1360-0>
4. Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 2014(1), 5. <https://doi.org/10.5339/connect.2014.5>

5. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
6. Kautish, P., Paul, J., & Sharma, R. (2021). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal of Cleaner Production*, 278, 123956. <https://doi.org/10.1016/j.jclepro.2020.123956>
7. Nguyen, T. N., Lobo, A., & Greenland, S. (2020). Pro-environmental purchase behaviour: The role of consumers' biospheric values, attitudes and advertising skepticism. *Journal of Retailing and Consumer Services*, 55, 102089. <https://doi.org/10.1016/j.jretconser.2020.102089>
8. Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123–134. <https://doi.org/10.1016/j.jretconser.2015.11.006>
9. Peattie, K., & Crane, A. (2005). Green marketing: Legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal*, 8(4), 357–370. <https://doi.org/10.1108/13522750510619733>
10. Sparks, P., & Shepherd, R. (1992). Self-identity and the theory of planned behavior: Assessing the role of identification with “green consumerism.” *Social Psychology Quarterly*, 55(4), 388–399. <https://doi.org/10.2307/2786955>
11. Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
12. Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1–32. <https://doi.org/10.2139/ssrn.2293805>