

**Sustainable marketing strategies and consumer behavior in India :
An empirical research on the green brand perception and purchase
intentions between urban and rural consumers**

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Abstract

This work explores Sustainable Marketing and consumer behavior in India that is experiencing an unprecedented economic growth and increased environment consciousness. Its main originality is that it is a theory that formally incorporates indigenous cultural constructs, Ahimsa (non-violence) and Dharma (duty towards nature) as moderators of the Theory of Planned Behavior (TPB) [1] and Value-Belief-Norm (VBN) models [2] instead of regarding them as peripheral variables. The convergent mixed-methods design was used: a structured survey of 1,623 respondents in six cities (Delhi, Mumbai, Bangalore; Pune,

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Jaipur, Coimbatore), sixteen focus groups ($n = 134$), and content analysis of 45 Indian brands. Reliability and validity were confirmed (Cronbach's $\alpha = 0.87$; CR = 0.91; AVE = 0.64). Green Purchase Intentions were largely predicted by Perceived Brand Authenticity ($r = 0.712$, $p < 0.001$; $R^2 = 0.51$), and Price Sensitivity was a significant partial mediator (0.41), which is almost twice the Western level. Four consumer groups were found: Those consumer segments are the Green-conscious Millennials (28%), the Traditional Value-driven Consumers (35%), the Price-sensitive Adopters (29%), and the Skeptical Non-adopters (8%). It was also found that there is a cultural paradox: high cultural value orientation, on the one hand, facilitates sustainable behavior, and, or we can say it creates the skepticism towards commercialization of Green Marketing, which is why the sustainability must be in the context of indigenous values rather than imported Western ideology.

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1. Introduction

In line with the theme of ICSISE-2025, which is innovation towards sustainable ecosystems, this paper focuses on one of the most important issues at a nexus point between economic growth and environmental protection. The population of India which is more than 1.4 billion and growing middle class and government policies, India's flagship climate policy initiative, the NAPCC and Swachh Bharat Mission, provide a policy environment favorable to Sustainable Marketing [3], [4]. However, policy intent to consumer behavior change is not simple: Sustainable Marketing is implementing ecological and social responsibility into the core value proposition of an organization [5] but living in harmony with convenience and low costs desired by consumers.

The extant constructs, TPB [1] and VBN Theory [2], were confirmed in high-income and individualistic western markets. They are not well applied to collectivist emerging markets that are price-sensitive, which has not been extensively assessed [6], which presents a consequential gap since the Attitude-Behavior Gap is shown to be significantly broader in a cost-constrained market [7]. The proposed research closes these gaps by: (a) applying Ahimsa and Dharma to TPB/VBN as moderating variables; (b) quantifying the mediating role of Price Sensitivity; (c) determining culturally based consumer segments; and (d) comparing Green Purchase Intentions in metropolitan and Tier-2 cities as a proxy of urban and rural, respectively.

2. Literature Review

2.1 *Theoretical Framework: Cultural Integration*

Sustainable Marketing, which was initially a niche strategy in the 1970s became a strategic imperative with social and economic aspects, as well as environmental issues [5], [8]. TPB [1] assumes that attitudes, subjective norms, and perceived behavioral control are all influential factors in deciding behavioral intentions. VBN Theory [2] extends a sequential process between values and beliefs through to personal moral norms. These two frameworks have their roots in a Western individualistic setting and need to be applied to collectivist, multi-cultural markets [6], [9]. The most crucial innovation of the research is that Ahimsa (non-violence) and Dharma (environmental stewardship) [10], [11] are viewed as the moderators of the attitude-intention connection as part of the integrated TPB-VBN framework- not as equivalent. The cultural value orientation enhances the subjective norm aspect of TPB as it is in the collectivist society of India where duty-based motivations are significantly involved in the bridging the relationship between environmental attitudes and Green Purchase Behavior [12], [13].

2.2 *Price Sensitivity, Trust and Urban-Rural Dynamics*

The consumer decisions of the developing market are dominated by price sensitivity. Indian consumers do not focus on sustainable products and products that provide a long-term environmental benefit like affluent consumers [14], instead, they emphasize on instantaneous usefulness [15], [16], which complicates premium-price strategies and demands other propositions based on cost-reduction, efficiency and durability [17]. Greenwashing has undermined trust in the world [18], in India, where certification systems are still in their early stages, Brand Trust stands out as an influential intermediary between communication and purchase intent [19], [20]. Urban people are more vigilant as compared to rural counterparts who conserve resources due to economic necessity and not due to environmental ideology [21], [22]. This urban-rural imbalance has some serious segmentation implication [23], [24] which are enhanced by the influence of collectivist family and community in the decision to purchase a product or service [25], [26].

3. Research Methodology

3.1 *Design*

A convergent mixed-methodology was used, and it was triangulated by using survey data, focus groups and content analysis to embrace the

social, cultural and economic nuances of sustainable consumption in India.

3.2 *Quantitative Survey*

Questionnaires were given to 1,623 respondents in six cities, metropolitan (Delhi, Mumbai, Bangalore) and Tier-2 (Pune, Jaipur, Coimbatore). The stratified random sampling was used to balance gender, age, income, and education. The modules that were used in the survey included: (i) Environmental Consciousness (15 items, culturally adapted using Ahimsa/Dharma-referenced indicators); (ii) Green Brand Perception; (iii) Purchase Intentions; (iv) Cultural Value Orientation; (v) Demographics. Reliability and validity: 0.87; CR = 0.91; AVE = 0.64, Discriminant Validity verified in Fornell-Larcker criterion (Table 1).

Table 1
Demographic Profile (n = 1,623)

Category	Metropolitan	Tier-2 Cities	Total
Total Respondents	892 (55%)	731 (45%)	1,623 (100%)
Age 18–25 / 26–35	301 / 352	218 / 265	519 (32%) / 617 (38%)
Age 36–50 / 50+	196 / 43	177 / 71	373 (23%) / 114 (7%)
Male / Female	419 / 473	344 / 387	763 (47%) / 860 (53%)
Income < ₹40k	178	251	429 (26%)
Income ₹40k – ₹1L	421	356	777 (48%)
Income > ₹1L	293	124	417 (26%)

3.3 *Qualitative Focus Groups*

Cultural motivations, attitudinal barriers, and purchase decision process were studied in 16 focus groups (n = 134; 10 Groups- 8 participants per group, 6 Groups- 9 participants per group). Sessions were held in regional languages, and they were professionally translated and analyzed thematically using NVivo 12.

3.4 *Content Analysis*

Over six months the coding of sustainability communications of 45 Indian brands in FMCG, Personal Care, Electronics, and Fashion was

conducted in traditional (TV, print) and digital channels. These were claim specificity, cultural symbolism, pricing strategy, certification visibility and authenticity.

3.5 Quantitative Analysis

Descriptive statistics, correlations, regression, and hierarchical cluster analysis [27] were performed with the help of SPSS 26.0. Confirmatory factor analysis, multiple regression, and Baron-Kenny bootstrapped mediation were used to test the hypothesized relationships. Baron-Kenny was used to assess mediation using bootstrapped CIs (5,000 iterations).

4. Results and Analysis

4.1 Environmental Consciousness

The general Environmental Consciousness was moderate ($M = 3.68$, $SD = 0.84$). Age ($r = 0.28$, $p < 0.01$) and education ($r = 0.34$, $p < 0.001$) correlated positively with awareness. Metro city users scored significantly higher than Tier-2 counterparts (3.89 vs. 3.47; $t(1621) = 8.73$, $p < 0.001$). There was a non-linear relationship between income and Environmental Consciousness, as the levels of Environmental Consciousness increased with income up to the middle bracket; however, it failed to provide proportional Green Purchase Behavior at the highest levels of income.

4.2 Consumer Segmentation

Cluster analysis revealed four distinct segments (Table 2). Some of the segment characteristics and marketing implications are summarized below:

Table 2
Consumer Segments – Characteristics and Marketing Implications

Segment	Size	Major Characteristics	Marketing Implications
Green-conscious Millennials	28%	Urban, 22–35 yrs; high digital usage; moderate price elasticity; emphasis on authenticity & certification	Innovative messaging; global sustainability stories.

Contd...

Old-fashioned Value-based	35%	35–55 yrs; culture/religion-based eco-values; skeptical of corporate assertions; family-based choices frame through Dharma/Ahimsa	Community movers; insistence on natural ingredients Frame through Dharma/Ahimsa; movers in communities; emphasis on natural ingredients
Price-sensitive Adopters	29%	Mid/low income; conditionally willing; functional benefit motivated; budget constrained	Cost-neutral pricing; tangible benefits; smaller packs/refills
Skeptical non-adopters	8%	Low corporate trust; require third-party evidence; all groups 3.	Industry credibility building; third-party evidence; regulatory education.

4.3 Perception and purchase intentions of Green Brand.

Perceived Brand Authenticity was the strongest predictor of Green Purchase Intentions ($r = 0.712$, $p < 0.001$; $R^2 = 0.51$; $F = 1684.32$, $p < 0.001$). Green Claims trust had a moderate positive correlation with credibility ($r = 0.48$, $p < 0.001$) although word-of-mouth which is recommended by the family/community had 67 percent more credibility than brand communications- which validates the subjective norm element of TPB in the collectivism setting of India. Additionally, a notable correlation existed between Perceived Product Effectiveness ($r = 0.56$, $p < 0.001$). These relationships are further summarized in Table 3.

Table 3
Pearson Correlation Matrix (n = 1,623)

Variable	1	2	3	4	5
1. Environmental Consciousness	1.00				
2. Perceived Authenticity	0.58***	1.00			
3. Purchase Intentions	0.54***	0.71***	1.00		
4. Price Sensitivity	-0.43***	-0.38***	-0.51***	1.00	
5. Cultural Values Orientation	-0.22**	0.41***	0.39***	0.43***	1.00

Note: *** $p < 0.001$; ** $p < 0.01$.

4.4 Price Sensitivity as Mediator

The Report as: $\beta = 0.41$, 95% CI [LL, UL] using the bootstrapped Baron-Kenny values was noteworthy ($\beta = 0.41$ vs. Western standard 0.20-0.25), which proved that the environmental attitudes are not necessarily translated into green purchases in the presence of cost constraints. There was diversity in the willingness to pay a premium by category: food (22%), personal care (18%), fashion (12%), electronics (8%). Income based variance: 78% of low-income (< 40 k/month) consumers declined any premium; 56% of middle-income (40k -1L) accepted up to 15; 64% of upper-income (> 1 L) accepted above 20.

4.5 Cultural Values

This was positively correlated between Higher Dharma orientation and Purchase Intentions ($r = 0.43$, $p < 0.001$). Predicted values of Ahimsa were likeliness towards cruelty-free and vegetarian products ($r = 0.39$, $p < 0.001$). The major paradox was that high cultural value orientation at the same time encouraged sustainable behavior and created distrust to the commercialized Green Marketing which seemed too many to be a Western importation. The respondents of joint families were found to have a higher sustainable product adoption by 32 percent with the transfer of knowledge by the elders and collective decision making.

4.6 Summary of Key Results

The key statistical findings of the study are summarized in Table 4.

Table 4
Key Statistical Findings at a Glance

Finding	Statistic	Interpretation
Environmental Consciousness (Mean)	$M = 3.68$, $SD = 0.84$	Moderate awareness across sample
Metro vs. Tier-2 score	3.89 vs. 3.47 ; $t = 8.73^{***}$	Significantly higher in metro cities
Authenticity $\rightarrow$ Purchase Intent	$r = 0.712^{***}$, $R^2 = 0.51$	Strongest predictor; explains 51% variance
Trust in Claims $\rightarrow$ Intent	$r = 0.48^{***}$	Moderated heavily by information source
WoM Credibility Premium	+67% vs. brand comm.	Collectivist social validation critical <i>Contd...</i>

Price Sensitivity (β mediation)	0.41 (Western: 0.20–0.25)	Significantly higher partial mediation in India
Dharma $\rightarrow$ Purchase Intent	$r = 0.43^{***}$	Cultural duty amplifies green intent
Ahimsa $\rightarrow$ Product Preference	$r = 0.39^{***}$	Drives cruelty-free/vegetarian choices
3rd-Party Cert. Trust Uplift	+47%	Certification strongly boosts credibility
Joint Family Adoption	+32% vs. nuclear family	Collective decisions reduce cost barriers

Note: *** $p < 0.001$. WoM = Word-of-Mouth.

4.7 Urban–Rural Differences and Communication Effectiveness

Tier-2 consumers had more unfamiliarity with sustainability terms, branded Green Products but more drawn to conventional conservation practices (composting, water conservation, repair/reuse). Met-shoppers were more inclined towards packaged sustainable product with certifications and Tier-2 consumers were more inclined towards unbranded natural products and traditional preparation- implying that rural consumers may already be practicing sustainability through the wisdom of their indigenous and need to do so due to economic pressure. In terms of communication: 38 percent of examined green campaigns made verifiable claims; third party certifications of a brand contributed to a 47 percent greater degree of trust; educational messages also produced 34 percent more attention than promotional messages; and using cultural narratives increased the Authenticity Perception by 29 percent among consumers with Traditional Value-oriented attitudes.

5. Discussion

Price sensitivity, information asymmetry, low availability of products and low institutional trust increase the Attitude-Behavior Gap in India. The prevailing Perceived Authenticity confirms the role of VBN Theory about the importance of moral norms: authenticity is the gap between the professed values and the actual purchase behavior. This 67 percent credibility difference between word-of-mouth and brand communications is an indicator of the subjective norm element of TPB that is working at a more powerful level in the collectivist environment of India. Price Sensitivity ($= 0.41$) is not only a demographic phenomenon but a structural market characteristic that the sustainability strategies have to directly

respond to. The big Price-sensitive Adopter market (29%) is an opportunity: the cost-neutral or cost-saving sustainability propositions can be delivered to this segment. The cultural paradox of high Dharma/ Ahimsa orientation being the most sustainable behavior and the distrust in commercialized Green Marketing, in turn, highlights that the communication with an indigenous Indian-based cultural set is the most effective in terms of reaching the greatest segment (35% Traditional Value-driven).

6. Contributions

6.1 Theoretical Contributions

To begin with, this paper formally incorporates Ahimsa and Dharma as moderators on the attitude-intention relationship on the single TPB-VBN model- an empirical novelty in the Indian Green Marketing context. Second, it shows that the Attitude Behavior Gap is a situational element, and it is much broader in price-sensitive, collectivist markets, which require market-specific theoretical extensions. Third, the cultural paradox (indigenous values facilitating and hindering Green Marketing) brings in a subtle theoretical layer that is not present in the previous literature.

6.2 Managerial Contributions

The sustainable marketing strategies should be grounded on authenticity by investing in the supply chain, third party certification and delivering on promises on a regular basis. Indian realities have to be considered in the pricing: cost-neutral sustainability (process efficiency, durability, smaller packs) has a larger audience than premium positioning. Cultural integration, the association of environmental action with Dharma, Ahimsa, and the traditional ecological wisdom, is an appropriate factor that boosts Authenticity Perception, particularly in the 35% Traditional Value-oriented segment. The promotional tools of the community-based marketing which involve word-of-mouth, community influencers and social proofs are always more effective than the traditional advertising techniques in the Indian relationship-oriented market.

7. Conclusions

Sustainable Marketing in India cannot be done in a fundamentally different approach as the one that was used in the Western markets. There is also environmental awareness, which is transformed to Green Purchase Behavior conditioned by price sensitivity, with the perceived authenticity,

mediated by cultural value orientation, and validated by community network social. The combination of Ahimsa and Dharma into the set behavioral patterns indicates an Indian way to sustainable usage pattern that has been largely ignored by commercial strategies. Brands which build sustainability stories based on these values, provide verifiable impact on the environment, offer products affordable to the masses and involve community trust systems are poised to dominate such a changing market.

10. Future Research and Limitations.

The sample is also urban-based restricting the ability to generalize the findings to the rest of India (65% of the population). The sustainable consumption of rural areas and the traditional ecological practices should be researched in the future. The cross-sectional design does not allow causal conclusions; longitudinal research would provide a clearer understanding of the development of behavior with time. Further insights into sustainable marketing viability in India would be gained through category specific research and supply-side approaches (organizational capabilities, supply chains, policy environments).

References

- [1] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211 (1991).
- [2] P. C. Stern, "Toward a coherent theory of environmentally significant behavior," *Journal of Social Issues*, vol. 56, no. 3, pp. 407–424 (2000).
- [3] Ministry of Environment, Forest and Climate Change, National Action Plan on Climate Change. New Delhi: Government of India (2008).
- [4] A. Khare, "Antecedents to green buying behavior," *Marketing Intelligence & Planning*, vol. 33, no. 3, pp. 309–329 (2015).
- [5] F. M. Belz and K. Peattie, *Sustainability Marketing: A Global Perspective*, 2nd ed. Chichester: Wiley (2012).
- [6] R. Yadav and G. S. Pathak, "Determinants of consumers' green purchase behavior in a developing nation," *Ecological Economics*, vol. 134, pp. 114–122 (2017).

- [7] Y. Joshi and Z. Rahman, "Factors affecting green purchase behavior and future research directions," *International Strategic Management Review*, vol. 3, no. 1–2, pp. 128–143 (2015).
- [8] K. Peattie and A. Crane, "Green marketing: Legend, myth, farce or prophesy?," *Qualitative Market Research*, vol. 8, no. 4, pp. 357–370 (2005).
- [9] A. Biswas and M. Roy, "Green products: Consumer behavior in emerging economies," *Journal of Cleaner Production*, vol. 87, pp. 463–468 (2015).
- [10] S. Gupta and D. T. Ogden, "To buy or not to buy? A social dilemma perspective on green buying," *Journal of Consumer Marketing*, vol. 26, no. 6, pp. 376–391 (2009).
- [11] V. Kumar and B. M. Rhodesia, "Building brand equity through CSR communication," *South Asian Journal of Global Business Research*, vol. 4, no. 2, pp. 143–164 (2015).
- [12] W. E. Kilbourne and J. D. Mittelstaedt, "From Adam Smith to ecological economics," *Journal of Micromarketing*, vol. 32, no. 2, pp. 133–146 (2012).
- [13] N. Seren, S. Purbey, and P. Sadarangani, "Impact of culture, behavior and gender on green purchase intention," *Journal of Retailing and Consumer Services*, vol. 41, pp. 177–189 (2018).
- [14] M. Laroche, J. Bergeron, and G. Barbaro-Forleo, "Targeting consumers willing to pay more for eco-friendly products," *Journal of Consumer Marketing*, vol. 18, no. 6, pp. 503–520 (2001).
- [15] D. Jaiswal and R. Kant, "Green purchasing behavior: Framework and empirical investigation of Indian consumers," *Journal of Retailing and Consumer Services*, vol. 41, pp. 60–69 (2018).
- [16] A. Sharma and G. R. Iyer, "Resource-constrained product development and green marketing," *Industrial Marketing Management*, vol. 41, no. 4, pp. 599–608 (2012).
- [17] P. Kumar, "Organic food market growth in India," *International Journal of Agriculture Sciences*, vol. 10, no. 9, pp. 5758–5763 (2018).
- [18] B. Parguel, F. Benoit-Moreau, and F. Larceneux, "How sustainability ratings might deter greenwashing," *Journal of Business Ethics*, vol. 102, no. 1, pp. 15–28 (2011).

- [19] A. Paço, "Green consumer market segmentation: Empirical findings from Portugal," *International Journal of Consumer Studies*, vol. 36, no. 4, pp. 429–436 (2012).
- [20] K. Ramesh, R. Saha, S. Goswami, Sekar, and R. Dahiya, "Consumer's response to CSR activities: Mediating role of brand image," *CSR and Environmental Management*, vol. 26, no. 2, pp. 377–387 (2019).
- [21] S. Bhate and K. Lawler, "Environmentally friendly products: Factors influencing adoption," *Technovation*, vol. 17, no. 8, pp. 457–465 (1997).
- [22] A. Singh and S. Pandey, "Green marketing: Policies and practices for sustainable development," *Integral Review*, vol. 11, no. 1, pp. 22–30 (2018).
- [23] J. Paul, A. Modi, and J. Patel, "Predicting green product consumption using TPB," *Journal of Retailing and Consumer Services*, vol. 29, pp. 123–134 (2016).
- [24] G. Prakash and P. Pathak, "Intention to buy eco-friendly packaged products among young Indian consumers," *Journal of Cleaner Production*, vol. 141, pp. 385–393 (2017).
- [25] K. Sharma, "Determinants of pro-environment behavior," *Asia-Pacific Journal of Management Research and Innovation*, vol. 7, no. 1, pp. 29–38 (2011).
- [26] D. Mishra and R. R. K. Sharma, "Determinants of green banking service adoption in India," *Australasian Accounting, Business and Finance Journal*, vol. 8, no. 1, pp. 42–64 (2014).
- [27] D. J. Ketchen and C. L. Shook, "The application of cluster analysis in strategic management research: An analysis and critique," *Strategic Management Journal*, vol. 17, no. 6, pp. 441–458 (1996), doi: 10.1002/(SICI)1097-0266(199606)17:6<441::AID-SMJ819>3.0.CO;2-G.

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