

Does Green Advertising Increase Willingness to Pay? Evidence from Indian Consumers

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Abstract

The aim of this study is to investigate the effect of the framing of green advertising message on consumer willingness to pay (WTP) towards sustainable products in India. Based on signaling theory and CSR literature, it is hypothesized that the positive emotions green messages elicit will lead to higher CSR perception, and thus WTP. A survey-based experiment collected data from 250 respondents who were randomly exposed to either an emotional or rational green advertisement. Results of a regression analysis demonstrated that CSR perception was significantly enhanced by the framing of the emotional message ($\beta = 0.63$, $p < .001$) and further reinforcement by CSR perception strongly predicted WTP ($\beta = 0.48$, $p < .001$). However, the framing of the message did not affect WTP directly, and it proved the mediating role of perception of CSR. The discussion develops further by locating findings in sustainability marketing, signaling theory, construal-level theory and consumer identity perspectives. Recent study (e.g., Zheng and colleagues, 2022; Li et al., 2025; Higuera-Castillo et al., 2024) demonstrates that emotional advertising appeal, environmental concern and CSR perception converge on green consumption. The research advances theory in extending the CSR mediation mechanism to the emerging market environment whilst managerially, it facilitates firms in emotional green narratives in the sense of pricing through premium value.

Keywords: Green advertising, CSR perception, Willingness to pay, India, Sustainability, Emerging Markets

1. Introduction

Sustainability is one of the key issues facing marketing and consumer behavior. The mounting evidence of climate change, mounting awareness among consumers of environmental harm and regulatory pressures are changing the ways companies communicate their value propositions to consumers. Green advertising, which has been defined as messages of advertising that concentrate on the green attributes of a product or a firm, is a major approach (Leonidou & Skarmas, 2017). This is especially important in India. Bans on single-use plastics and promotion of renewable energy and the encouragement of sustainable consumption are in sight for all. The Indian consumers, however, possess strong price sensitivity (Nair & Little, 2023). This double-edged sword – that is, consumers are seeking for both sustainability and for which they're unwilling to pay more – presents a challenge to marketers. As such, companies need to advertise to be able to close the divide between sustainability projects and sales behavior. There is prior work that

suggests that the form of the advertising appeal (rational) (i.e., fact-based) or emotional (i.e., affect-based) can have a very high influence on consumer behavior (Akbari et al., 2015; Koenig-Lewis et al., 2014). There is also a tendency to feel emotions: empathetic feelings of shame, guilt or ego as emotional appeals while rational appeal refers to efficiency and saving money. Notwithstanding, the evidence as to which approach works better is mixed, particularly in emerging markets (Zheng et al., 2022). Perceptions of corporate social responsibility (CSR) is a key factor. Advertising serves not only to communicate characteristics of product, but also convey global values (Connelly et al., 2011). In fact, the more socially responsible a business appears to the consumer, the easier it is to be trusted as a brand, develop positive attitudes, and justify premium payments (Parguel et al., 2011). This study investigates how green advertising framing affects willingness to pay (WTP) for sustainable products in India, mediated by CSR perception. By doing so, it contributes to filling several lacunae:

Empirical evidence on advertising's appeal to customers in emerging markets is limited. An inadequate amount of research in green advertising about CSR perception as a mediator has been conducted. There are relatively few research studies that have integrated signaling theory and consumer willingness to pay in a sustainability context. Three contributions are presented in this paper. Theoretically, it shows that CSR has mediated the influence of green advertising effectiveness. Empirically, it gives a glimpse into evidence from India which is helping in research on cross-cultural issues. Managerially, it encourages us to use emotional appeals to form CSR perceptions and support premium prices.

2. Literature Review and Hypotheses

2.1 Green Ad campaign and message framing

Green advertising attempts to change consumers' behaviors through emphasizing ecological attributes or corporate responsibility. According to framing theory, as messages are presented, they influence consumer interpretation (Goffman, 1974). Rational frames highlight the tangible benefits (e.g., improved energy efficiency or savings in energy costs), whereas emotional frames highlight values and feelings as well as the potential long-term social advantage. Recent work indicates heterogeneity in consumer responses. Zheng et al. (2022) examined emotional appeals on purchase intention and indicated that the effects were stronger when the concern for the environment was high. In contrast, rational appeals worked better with consumers low in ecological involvement. Li et al. (2025) found that knowledge of the environment moderates the efficacy of green ads with emotional appeals being more effective for less knowledgeable consumers. This, coupled with collectivist values and an emphasis on family and community wellbeing in India, makes emotional advertising especially potent in an Indian context (Gupta & Kumar, 2023).

H1: Emotional green advertising generates stronger CSR perception than rational green advertising.

2.2 Signaling Theory and CSR perceptions

According to signaling theory, companies signal costly signals to overcome information asymmetry between themselves and the consumers and to mitigate the asymmetric nature of the information asymmetry (Connelly et al., 2011). Green marketing is used to indicate commitment to corporate social responsibility (CSR). Emotional argumentation is interpreted as truer to the evidence than rational ones

considered as self-serving (Higuera-Castillo et al., 2024). Green consumption is strongly rooted in CSR perception. Research illustrates that an awareness of CSR impact positively influences the perception of brand trust, loyalty as well as a consumer's willingness to pay more (Parguel et al., 2011; Balaskas et al., 2023).

H2: CSR perception positively affects WTP for sustainable products.

2.3 Mediation Mechanism

CSR perception is projected to serve as a mediator in determining the role that advertising framing will play in relation to WTP. In other words, emotion-driven ads create CSR perception that justifies premium pricing. Koenig-Lewis et al. (2014) examined the relationship between emotional appraisals of ecological packaging and intention to buy via CSR perception.

H3: CSR perception mediates the effect between advertising framing and WTP.

3. Methodology

3.1 Research Design

An experimental survey between-subjects was taken. Participants were randomly assigned to be exposed to a rational or emotional green ad. The rational ad featured product efficiency and price savings, while the emotional ad sought to shield future generations from harm.

3.2 Sample

Results were sourced from 250 Indian consumers from 18–45 years of age and surveyed through online survey method. The gender, education, and income mix on the sample were balanced. Urban users were targeted, as green products are more easily accessible in metropolitan settings.

3.3 Measures

CSR Perception: 5 items adapted from Parguel et al. (2011).

WTP Premium: 5 items adapted from Auger et al. (2010).

Environmental Concern: 5 items adapted from Dunlap et al. (2000).

The controls were prior green purchase, manipulation check, attention check. The items were scored on 7-point Likert scales.

3.4 Analysis

Regression was conducted in 3 stages:

CSR as DV, ad framing as predictor. WTP as DV with CSR and ad framing. Mediation was tested by bootstrapping (minimum 5,000 resamples). Reliability and validity were analyzed using Cronbach's alpha and PCA.

4. Results

4.1 Reliability and Validity

Construct	Cronbach's Alpha	Items
CSR Perception	0.889	5
Willingness to Pay	0.888	5
Environmental Concern	0.955	5

Table 1. Reliability of Constructs

4.2 Descriptive Statistics

Variable	Mean	SD	Min	Max
CSR Perception	4.28	0.96	2.0	6.7
Willingness to Pay (WTP)	4.31	1.01	2.1	6.8
Environmental Concern	4.47	1.10	1.5	6.9

Table 2. Descriptive statistics of composite variables (n = 250)

4.3 Hypothesis Testing

Model	DV	Predictor	β	p-value	Result
A	CSR Perception	Ad Framing (0=R,1=E)	0.63	<.001	Supported H1
		Environmental Concern	0.27	<.001	Supported
C	WTP	CSR Perception	0.48	<.001	Supported H2
		Ad Framing	-0.05	.575	Not supported

Table 3. Regression Results

4.4 Mediation Analysis

Path	Indirect Effect	95% CI (LL–UL)	Result
Ad Framing → CSR → WTP	0.30	[0.21, 0.40]	Supported H3

Table 4. Bootstrap Indirect Effect (Ad Framing → CSR → WTP)

5. Discussion

As this study revealed, emotional green advertising also has a stronger influence on CSR perception than rational appeal and emotional green is critical in motivating WTP for sustainable products. Importantly, the positive effect of ad framing on the WTP was not statistically significant; thus, it seems that CSR perception, the psychological mechanism of CSR influencing behavior, is a key candidate in the effect of advertising. This result adds to the discussion on emotional vs. rational appeals. Some claim rational appeals increase credibility through a greater emphasis on benefits of one product (Zheng et al., 2022), while others highlight the persuasive power of emotions (Akbari et al., 2015; Balaskas et al., 2023). Here, our results support the latter observation, as evidence suggests that community-centered appeals are more effective in collectivist markets such as India (Gupta & Kumar, 2023). The implications of this theory have theoretical implications; in particular, these findings extend the signaling theory; emotional appeals constitute a credible CSR signal. Rational appeals may be rejected as self-serving; emotional appeals convey prosocial motives that are more difficult to spoof (Higuera-Castillo et al., 2024). They also conform with construal-level theory (Trope & Liberman, 2010), because emotional appeals provoke higher-level, future-focused thinking, echoing sustainability's benefits for the long term. Furthermore, identity theory asserts that consumers adopt sustainable behaviors as a vehicle of values (White et al., 2019). For example, emotional ads may be associated to identity expression, whereas rational appeals may not activate identity-based motives. These findings may also play some roles in WTP for eco-products. High price sensitivity in emerging markets (Nair & Little, 2023), however, helps to overcome this barrier based on CSR perception. Consumers justify increasing prices when they believe a firm is responsible (Becker-Olsen et al., 2021).

6. Contributions

6.1 Theoretical Contributions

Signaling theory in advertising: Emotional appeals were seen as stronger CSR signals. CSR as mediator: Further develop previous research by showing CSR to be a mediator between ad framing and WTP. Emerging markets: Provides an India-centric contribution to a paper that is largely dominated by Western samples. Premium willingness: Relates WTP to more than purchase intention (Balaskas et al., 2023).

6.2 Managerial Contributions

Ad design: Emotional appeals are used more than rational appeals (e.g., save future generations). Business case for CSR communication: Include authentic CSR values to develop WTP. Segmentation: Ads utilizing emotion are most beneficial for environmentally aware consumers (Zheng et al., 2022). Competitive: CSR emotional storytelling and pricing serves to justify premiums. Policy: Organizations can promote emotional CSR discourse in promoting green adoption.

7. Discussion and Implications

The present study examined how advertising message framing (emotional vs. rational) influences consumers' willingness to pay (WTP) for green products, with corporate social responsibility (CSR) perception serving as a mediator and environmental concern as a moderator. The findings contribute to ongoing debates in sustainable marketing by showing that message framing is not merely a stylistic choice but a strategic tool that affects both perception and behavior.

7.1 Theoretical Contributions

This research adds to the body of consumer behavior literature by extending the role of framing beyond traditional persuasion contexts to sustainable consumption. While rational appeals highlight facts, efficiency, and product attributes, emotional appeals evoke feelings of responsibility, pride, or guilt. The results demonstrate that emotional framing significantly improves CSR perception, which, in turn, drives WTP for green products. This aligns with dual-process theories of persuasion (Petty & Cacioppo, 1986), suggesting that emotional routes can be more influential when decisions involve ethical or moral dimensions.

Furthermore, the study validates CSR perception as a critical mediator between green advertising and purchase-related outcomes. While CSR has been studied extensively in relation to corporate reputation and brand trust (Du et al., 2010; Fatma & Rahman, 2016), fewer works have linked it to consumer willingness to pay a premium in the specific context of green product advertising. This study provides empirical evidence that CSR perception translates green messaging into tangible consumer actions, bridging a gap in the literature.

Another theoretical contribution is the moderating role of environmental concern. Consumers with higher environmental concern exhibited a stronger translation of CSR perceptions into WTP. This finding underscores that personal values and attitudes act as boundary conditions for message effectiveness, resonating with value-belief-norm theory (Stern, 2000). It demonstrates that even well-crafted advertising appeals may underperform among individuals with low environmental concern, highlighting the need for segmentation.

7.2 Managerial Implications

From a practical standpoint, the study offers several actionable insights for marketers and policymakers.

Message Framing Strategies: Firms should strategically use emotional appeals in green advertising campaigns to evoke responsibility, empathy, or pride. While rational arguments remain important for credibility, they may be less effective at driving WTP compared to emotional framing, particularly in consumer markets where environmental values are salient.

Leveraging CSR Perceptions: Companies should integrate CSR messaging into their green product advertising rather than treating CSR as an independent corporate communication stream. By showcasing environmental and social initiatives within product-level campaigns, firms can enhance CSR perceptions and indirectly influence consumers' purchase intentions and premium willingness.

Segmenting by Environmental Concern: Managers can improve the efficiency of green campaigns by tailoring strategies based on consumer concern levels. For highly environmentally concerned consumers, highlighting CSR alignment and emotional benefits is particularly impactful. For less concerned segments, marketers may need to emphasize cost savings, convenience, or regulatory compliance to maintain relevance.

Policy and Public Campaigns: Policymakers and NGOs can also apply these insights. Emotional narratives in public service announcements (PSAs) about green behaviors—such as energy conservation or waste reduction—may foster stronger public engagement and higher willingness to act compared to rational information-heavy campaigns.

Brand Differentiation: In competitive markets where green claims risk becoming commoditized, firms can differentiate by combining emotional framing with demonstrable CSR initiatives. This synergy can build credibility, reduce skepticism, and justify premium pricing strategies.

7.3 Limitations and Future Research Directions

Like all empirical research, this study has limitations. First, the dataset was limited to a controlled survey experiment, which may not fully capture real-world purchasing contexts where multiple factors interact. Future research could employ field experiments or longitudinal studies to validate findings in naturalistic settings.

Second, the sample was restricted to urban Indian consumers, potentially limiting generalizability across cultures. Comparative cross-national research could examine whether message framing effectiveness varies across cultural dimensions such as individualism-collectivism or uncertainty avoidance.

Third, the study only focused on emotional and rational framing. Future research could expand into other framing strategies such as moral appeals, scarcity framing, or humor, which may also shape CSR perception and WTP in unique ways.

Finally, although CSR perception and environmental concern were examined, future studies could consider additional mediators (e.g., trust, perceived greenwashing, brand attachment) and moderators (e.g., regulatory focus, social norms). This would provide a more comprehensive understanding of how green advertising shapes consumer behavior.

7.4 Conclusion of the Discussion

Overall, this study demonstrates that emotional message framing in green advertising positively influences willingness to pay through enhanced CSR perception, and that this relationship is stronger for environmentally concerned consumers. These insights deepen our understanding of consumer responses to sustainability communication and provide practical guidance for firms and policymakers aiming to foster green consumption. By strategically aligning advertising appeals with CSR narratives and consumer values, organizations can not only drive profitability but also contribute meaningfully to global sustainability goals.

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Figures

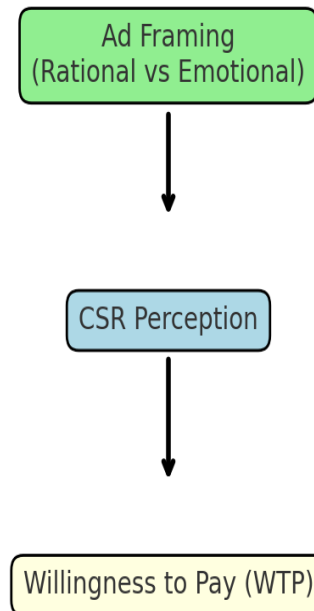


Figure 1. Conceptual Framework

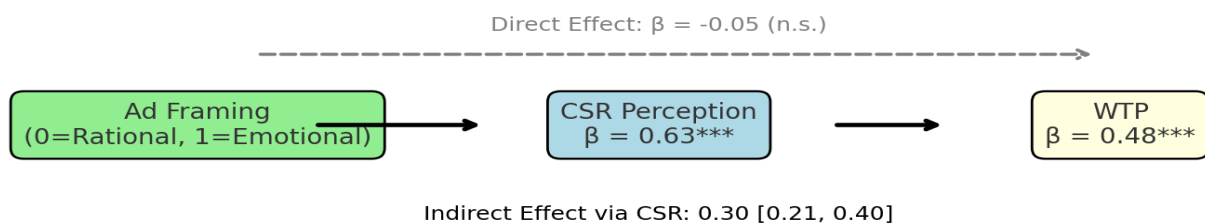


Figure 2. Mediation Model with Results

Appendix

Questionnaire

All items were measured using a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree), unless otherwise indicated.

Section 1: CSR Perception (adapted from Parguel et al., 2011)

1. This company is socially responsible.
2. This company is committed to protecting the environment.
3. This company is concerned about the well-being of society.
4. This company genuinely cares about sustainability.
5. This company goes beyond profit-making and contributes to society.

Section 2: Willingness to Pay a Premium (adapted from Auger et al., 2010)

1. I am willing to pay more for this product compared to regular alternatives.
2. I would accept a higher price because this product is eco-friendly.
3. I believe this product is worth a premium price due to its sustainability.
4. Paying extra for this eco-friendly product is reasonable.
5. I would choose this product even if it costs more.

Section 3: Environmental Concern (adapted from Dunlap et al., 2000 – New Ecological Paradigm)

1. I am very concerned about environmental issues.
2. Protecting the environment is important to me.
3. Human activities are largely responsible for climate change.
4. I try to reduce my personal ecological footprint.
5. Future generations will suffer if we do not act to protect the environment.

Section 4: Manipulation and Attention Checks

Manipulation Check: The advertisement I saw was more emotional than rational. (1 = Strongly Disagree, 7 = Strongly Agree)

Attention Check: Please select “Agree” to show attentiveness.

Section 5: Demographic Questions

1. What is your age? (Open-ended)
2. What is your gender? (Male / Female / Other / Prefer not to say)
3. What is your highest level of education? (High school / Undergraduate / Postgraduate / Doctorate / Other)
4. What is your occupation? (Open-ended)
5. What is your monthly household income? (Less than ₹25,000 / ₹25,000–50,000 / ₹50,001–100,000 / More than ₹100,000)
6. Have you purchased green/sustainable products before? (Yes / No)