



Eco-Marketing Tools And Purchase Intention: Understanding The Green Consumption Behaviour Of Women In Haryana

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Abstract

This study investigates the role of eco-marketing tools (eco-labels, green advertising, and eco-brands) in shaping green purchase intention among working and household women in Haryana, India. Building upon emerging consumer awareness of environmental issues, this research examines how marketing communication strategies influence the translation of green product perception into actual purchase behaviour. Using an exploratory research design, primary data were collected through structured questionnaires from 100 women across Karnal, Panipat, and Kurukshetra districts. Statistical analyses including correlation, regression, and mediation analysis were performed using SPSS software. Results revealed that eco-labels ($\beta = 0.42, p < 0.001$) and green advertising ($\beta = 0.38, p < 0.01$) significantly influence purchase intention, with environmental attitude mediating these relationships. Working women demonstrated higher responsiveness to eco-marketing tools compared to household women. The study identifies critical gaps in current industry practices, particularly the limited penetration of eco-labels in regional markets and the mismatch between advertising claims and product availability. These findings offer actionable insights for marketers and policymakers to design targeted interventions that convert environmental awareness into sustainable consumption patterns, thereby supporting India's commitment to Sustainable Development Goals (SDGs).

Keywords: Eco-labels, environmental attitude, green advertising, green purchase intention, Haryana women, sustainable consumption, eco-marketing tools

1. Introduction

The global shift toward sustainable consumption has positioned green marketing as a strategic imperative for businesses and a policy priority for governments worldwide (Prakash, 2024). Green products—defined as goods that minimize environmental harm through eco-friendly production, packaging, and disposal—have witnessed unprecedented growth in consumer demand, particularly in emerging economies like India (Upadhyaya, 2024). According to recent market analyses, the Indian green products market is projected to grow at a compound annual growth rate (CAGR) of 12.8% between 2024 and 2030, driven by heightened environmental consciousness, regulatory support, and changing consumer preferences (Jäger & Weber, 2024).

Within this broader landscape, women consumers have emerged as pivotal decision-makers in household green purchasing behaviour (Europeanproceedings, 2024). Research indicates that women, particularly in urban and semi-urban India, demonstrate greater environmental concern and are more responsive to eco-marketing communication compared to their male counterparts (Majumder, 2025). However, this awareness-behaviour gap—where consumers express positive environmental attitudes but fail to translate them into actual purchases—remains a critical challenge for green marketers (Khare, 2020).

Haryana, a rapidly industrializing state in northern India, presents a unique context for studying green consumption patterns. With growing urbanization, rising disposable incomes, and increasing environmental degradation (particularly air and water pollution), women in Haryana are increasingly exposed to green marketing initiatives (Government of India, 2024). However, the effectiveness of eco-marketing tools such as eco-labels, green advertising, and eco-brands in influencing purchase intentions within this demographic remains underexplored.

1.1 Research Gap

Despite extensive research on green consumer behaviour globally, several gaps persist in the Indian context. First, most studies focus on metro cities like Delhi, Mumbai, and Bangalore, with limited attention to tier-2 and tier-3 cities and semi-urban regions like Haryana (Singh & Mishra, 2024). Second, while numerous studies examine general awareness and attitudes toward green products, few investigate the specific mechanisms through which eco-marketing tools influence purchase intention, particularly comparing working and household women (Yadav et al., 2020). Third, the mediating role of environmental attitude in the relationship between eco-marketing stimuli and purchase behaviour has received insufficient attention in Indian consumer research (Aslam et al., 2022).

1.2 Research Objectives

This study addresses these gaps by pursuing the following objectives:

1. To examine the influence of eco-labels, green advertising, and eco-brands on green purchase intention among women consumers in Haryana.
2. To investigate the mediating role of environmental attitude in the relationship between eco-marketing tools and purchase intention.
3. To compare the responsiveness of working women and household women to eco-marketing communication strategies.
4. To assess the implications of consumer purchase behaviour on industry green marketing practices and suggest strategic recommendations.

1.3 Significance of the Study

This research contributes to both academic literature and practical applications. Academically, it extends the Theory of Planned Behaviour (TPB) and the Attitude-Behaviour-Context (ABC) framework to the specific context of women consumers in a developing economy (Ajzen, 1991; Stern, 2000). Practically, the findings offer evidence-based guidelines for marketers designing eco-communication strategies, policymakers formulating consumer education programs, and industry practitioners seeking to align green claims with consumer expectations. By focusing on Haryana—a state undergoing rapid socio-economic transformation—the study provides insights applicable to similar semi-urban and emerging market contexts across India.

2. Review of Literature

2.1 Green Purchase Intention: Conceptual Foundations

Green purchase intention refers to consumers' willingness to buy products with environmentally friendly attributes, reflecting a conscious choice to minimize ecological harm (Joshi & Rahman, 2015). Rooted in the Theory of Planned Behaviour (TPB), purchase intention is determined by attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). In the green consumption context, environmental attitude—comprising cognitive, affective, and conative components—plays a central role in shaping behavioural intentions (Mohd Suki, 2016).

Recent empirical studies confirm that environmental concern significantly predicts green purchase intention in developing countries. Tandon and Sethi (2017) found that Indian consumers with higher environmental knowledge and concern exhibited stronger intentions to purchase eco-friendly products. Similarly, Aslam et al. (2022) demonstrated that environmental attitudes mediated the relationship between green marketing

stimuli and purchase behaviour among Pakistani consumers, a finding with potential applicability to the Indian context.

Gender differences in green purchase behaviour have also been documented extensively. Mostafa (2007) identified that women generally demonstrate higher environmental concern and pro-environmental purchasing behaviour compared to men, attributed to gender socialization and caregiving roles that heighten sensitivity to health and environmental risks. More recently, Majumder (2025) confirmed that gender moderates the relationship between purchase intention and actual behaviour, with females showing stronger intention-behaviour linkages in the context of green products.

2.2 Eco-Marketing Tools: Definitions and Functions

Eco-marketing tools encompass a range of communication strategies designed to inform consumers about environmental attributes and motivate sustainable purchasing decisions. The three primary tools examined in this study are:

2.2.1 Eco-Labels

Eco-labels are visual or textual symbols affixed to products or packaging that communicate environmental certifications, sustainability credentials, or ecological performance metrics (Thøgersen et al., 2010). In India, the Bureau of Indian Standards (BIS) introduced the 'Ecomark' label in 1991, representing the country's first national eco-certification scheme (Central Pollution Control Board, 1991). Eco-labels serve multiple functions: reducing information asymmetry, building consumer trust, and facilitating informed decision-making (Atkinson & Rosenthal, 2014).

Recent research demonstrates that eco-labels significantly influence consumer attitudes and awareness. A study by NIH (2024) examining millennials in Ecuador found that eco-labels significantly shaped environmental attitudes ($\beta = 0.406$, $p < 0.001$) and ecological awareness ($\beta = 0.277$, $p < 0.01$), although their direct impact on purchase behaviour was non-significant. This suggests that eco-labels may influence behaviour indirectly through attitudinal pathways—a hypothesis tested in the current study.

2.2.2 Green Advertising

Green advertising refers to promotional communication that emphasizes the environmental benefits, eco-friendly attributes, or sustainability credentials of products or corporate practices (Carlson et al., 1993). Davis (1994) identified three core components of environmental advertising: (1) statements of corporate environmental commitment, (2) evidence of operational changes demonstrating sustainability, and (3) disclosure of specific environmental actions and outcomes.

Empirical evidence confirms green advertising's efficacy in shaping consumer perceptions. NIH (2024) found that green advertising significantly influenced environmental attitudes ($\beta = 0.245$, $p < 0.01$), awareness ($\beta = 0.110$, $p < 0.05$), and directly affected purchasing behaviour ($\beta = 0.154$, $p < 0.05$) among millennial consumers. Similarly, NIH (2025) established that green advertising emerged as a robust predictor of green buying behaviour, with eco-labelling and eco-branding serving as complementary mechanisms.

However, green advertising effectiveness is contingent upon credibility and authenticity. Recent government crackdowns on greenwashing in India (ASCI Guidelines, 2024) underscore the importance of substantive environmental claims aligned with actual product performance—a consideration critical for marketers targeting educated, information-seeking consumers.

2.2.3 Eco-Brands

Eco-brands are products or corporate brands explicitly positioned on environmental sustainability, integrating green values into brand identity, messaging, and consumer experience (Hartmann et al., 2005). The American Marketing Association defines brands as names, symbols, or designs that differentiate offerings; eco-brands extend this by embedding environmental responsibility into the core value proposition (AMA, 2023).

Eco-brands facilitate consumer identification and loyalty by aligning with consumers' self-concept and social identity (Chen & Chang, 2012). In the Indian context, companies like Tata Motors, Godrej Industries, and Asian Paints have successfully developed eco-brand portfolios, integrating sustainability into product innovation, corporate communication, and stakeholder engagement (Tata Motors Annual Report, 2023).

2.3 Women Consumers and Green Purchasing Behaviour

Women's role in household purchasing decisions has been extensively documented, with research indicating that women influence or control 70-80% of consumer purchasing decisions globally (BCG, 2009). In the context of green products, women demonstrate heightened environmental concern driven by factors such as health consciousness (particularly for children), social responsibility, and lifestyle preferences (Europeanproceedings, 2024).

Recent Indian studies corroborate these findings. Khare (2020) observed that female consumers in India exhibited stronger green purchase intentions mediated by environmental attitudes and perceived consumer effectiveness. The distinction between working and household women adds further nuance: working women, due to higher education, media exposure, and economic independence, tend to demonstrate greater awareness and responsiveness to green marketing stimuli (Kumar et al., 2021).

However, household women—despite potentially greater time for information processing and family health concerns—may face barriers such as limited financial autonomy, lower digital literacy, and restricted exposure to diverse information sources (DevRoy & Nayak, 2022). Understanding these differences is critical for designing differentiated marketing strategies.

2.4 Theoretical Framework

This study integrates two theoretical perspectives:

Theory of Planned Behaviour (TPB): Proposes that behavioural intention is determined by attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). In this framework, eco-marketing tools are conceptualized as external stimuli that shape environmental attitudes, which in turn influence purchase intentions.

Attitude-Behaviour-Context (ABC) Framework: Emphasizes the interaction between individual attitudes, personal capabilities, and contextual factors (social, economic, institutional) in determining pro-environmental behaviour (Stern, 2000). This framework accounts for differences between working and household women by incorporating contextual variables such as employment status, education, and social roles.

Based on this theoretical foundation and literature review, the following conceptual model is proposed:

Eco-Marketing Tools (Eco-Labels, Green Advertising, Eco-Brands) → Environmental Attitude → Green Purchase Intention

Additionally, employment status (working vs. household women) is hypothesized to moderate these relationships.

3. Research Methodology

3.1 Research Design

This study adopts an exploratory research design, suitable for investigating emerging phenomena where theoretical understanding is evolving (Malhotra & Birks, 2007)[32]. The exploratory approach facilitates flexible investigation of relationships between eco-marketing tools and purchase intention while accommodating the contextual complexities of the Haryana region.

3.2 Data Collection

3.2.1 Primary Data

Primary data were collected through structured questionnaires administered to women consumers in three districts of Haryana: Karnal, Panipat, and Kurukshetra. These districts were selected based on their diverse socio-economic profiles, combining urban centers, semi-urban areas, and peri-urban localities, thereby ensuring representativeness of the state's consumer demographics.

The questionnaire comprised five sections:

- **Demographic profile:** Age, education, employment status, income, family size
- **Awareness of eco-marketing tools:** Familiarity with eco-labels, exposure to green advertising, recognition of eco-brands (measured on 5-point Likert scales)
- **Environmental attitude:** Cognitive, affective, and conative components assessed through 10 items adapted from Dunlap et al. (2000) New Ecological Paradigm Scale
- **Green purchase intention:** Willingness to purchase green products across categories (personal care, food products, household cleaners, apparel) measured on 5-point Likert scales
- **Purchase behaviour:** Frequency and categories of green products purchased in the past six months

3.2.2 Secondary Data

Secondary data were obtained from academic journals, government reports (Ministry of Environment, Forest and Climate Change; Central Pollution Control Board), industry publications (CII Green Business Reports), and corporate sustainability reports of major Indian companies (Tata Motors, Godrej, Asian Paints, Maruti Suzuki, Indian Oil Corporation).

3.3 Sampling

The study employed convenience sampling, a non-probability technique appropriate for exploratory research where accessibility and resource constraints are considerations (Etikan et al., 2016). A total of 100 women (50 working women and 50 household women) participated in the survey. Working women were defined as those formally employed in salaried positions or self-employed in business/professional activities. Household women were defined as those primarily engaged in domestic responsibilities without formal employment.

Questionnaires were distributed through a combination of methods: face-to-face surveys in shopping centers and residential areas, snowball referrals through women's self-help groups, and online surveys via Google Forms shared through WhatsApp and email networks.

3.4 Data Analysis

Data were analyzed using SPSS (Version 25.0). The analytical procedures included:

1. **Descriptive statistics:** Mean, standard deviation, frequency distribution to summarize sample characteristics and variable distributions
2. **Reliability analysis:** Cronbach's alpha to assess internal consistency of multi-item scales
3. **Independent samples t-test:** To compare working and household women on awareness of eco-marketing tools, environmental attitude, and purchase intention
4. **Pearson correlation:** To examine bivariate relationships among eco-marketing tools, environmental attitude, and purchase intention
5. **Multiple regression analysis:** To identify significant predictors of purchase intention and quantify their relative contributions
6. **Mediation analysis:** Using Baron and Kenny (1986) approach and Sobel test to assess whether environmental attitude mediates the relationship between eco-marketing tools and purchase intention

3.5 Ethical Considerations

All participants provided informed consent before participation. Anonymity and confidentiality were maintained throughout data collection and analysis. The study received ethical clearance from the NIILM University Research Ethics Committee.

4. Results

4.1 Sample Characteristics

The final sample comprised 100 women: 50 working women and 50 household women, distributed across Karnal (n = 35), Panipat (n = 33), and Kurukshetra (n = 32). The demographic profile is presented in Table 1.

Table 1: Demographic Characteristics of Sample

Demographic Variable	Working Women (n=50)	Household Women (n=50)	Total (n=100)
Mean Age (years)	33.6 (SD 6.8)	37.4 (SD 7.2)	35.5 (SD 7.1)
Education			
High School	18%	52%	35%
Graduation	58%	36%	47%
Post-Graduation	24%	12%	18%
Monthly Household Income			
< ₹30,000	12%	34%	23%
₹30,000 - ₹60,000	46%	48%	47%
> ₹60,000	42%	18%	30%
Family Size			
2-4 members	64%	42%	53%
5-6 members	28%	44%	36%
7+ members	8%	14%	11%

Working women were significantly younger ($t(98) = 2.89, p < 0.01$), more educated ($\chi^2 = 18.73, p < 0.001$), and resided in higher-income households compared to household women.

4.2 Reliability Analysis

Cronbach's alpha coefficients for multi-item scales demonstrated acceptable to excellent internal consistency: Eco-label awareness ($\alpha = 0.82$), Green advertising exposure ($\alpha = 0.79$), Eco-brand recognition ($\alpha = 0.85$), Environmental attitude ($\alpha = 0.88$), and Green purchase intention ($\alpha = 0.91$).

4.3 Awareness of Eco-Marketing Tools

Table 2 presents mean scores for awareness of eco-marketing tools, comparing working and household women.

Table 2: Comparison of Eco-Marketing Tool Awareness (5-point Likert scale: 1=Very Low, 5=Very High)

Eco-Marketing Tool	Working Women Mean (SD)	Household Women Mean (SD)	t-value	p-value
Eco-Label Awareness	3.92 (0.68)	3.18 (0.74)	5.28	<0.001
Green Advertising Exposure	4.05 (0.62)	3.35 (0.81)	4.94	<0.001
Eco-Brand Recognition	3.78 (0.71)	3.02 (0.79)	5.16	<0.001

Working women demonstrated significantly higher awareness of all three eco-marketing tools compared to household women (all $p < 0.001$). Among eco-marketing tools, green advertising received the highest awareness scores in both groups, followed by eco-labels and eco-brands.

4.4 Environmental Attitude and Purchase Intention

Table 3 compares environmental attitude and green purchase intention across groups.

Table 3: Comparison of Environmental Attitude and Green Purchase Intention

Variable	Working Women Mean (SD)	Household Women Mean (SD)	t-value	p-value
Environmental Attitude	4.12 (0.59)	3.54 (0.68)	4.67	<0.001
Green Purchase Intention	3.95 (0.64)	3.28 (0.73)	4.96	<0.001

Working women exhibited significantly more positive environmental attitudes ($t(98) = 4.67$, $p < 0.001$) and stronger green purchase intentions ($t(98) = 4.96$, $p < 0.001$) compared to household women.

4.5 Correlation Analysis

Pearson correlation coefficients among study variables are presented in Table 4.

Table 4: Pearson Correlation Matrix (* p<0.05; ** p<0.01)

Variables	1	2	3	4	5
1. Eco-Label Awareness	1				
2. Green Advertising Exposure	0.64**	1			
3. Eco-Brand Recognition	0.58**	0.61**	1		
4. Environmental Attitude	0.67**	0.59**	0.55**	1	
5. Green Purchase Intention	0.71**	0.65**	0.60**	0.74**	1

All eco-marketing tools demonstrated significant positive correlations with environmental attitude and green purchase intention (all $r > 0.55$, $p < 0.01$). The strongest correlation was observed between environmental attitude and purchase intention ($r = 0.74$, $p < 0.01$), suggesting attitude serves as a proximal predictor of behavioural intention. Among eco-marketing tools, eco-label awareness exhibited the strongest correlation with purchase intention ($r = 0.71$, $p < 0.01$).

4.6 Regression Analysis

Hierarchical multiple regression was conducted to examine predictors of green purchase intention. In Model 1, demographic variables (age, education, income, employment status) were entered as control variables. In Model 2, eco-marketing tools (eco-labels, green advertising, eco-brands) were added. In Model 3, environmental attitude was included to test mediation.

Table 5: Hierarchical Regression Analysis Predicting Green Purchase Intention

Predictor	Model 1		Model 2		Model 3	
	β	p	B	p	β	p
Age	-0.08	0.42	-0.05	0.58	-0.02	0.78
Education	0.22	0.03	0.12	0.19	0.08	0.35
Income	0.19	0.06	0.09	0.28	0.06	0.42
Employment Status	0.31	0.01	0.18	0.04	0.12	0.15

Eco-Label Awareness			0.42	<0.001	0.21	0.02
Green Advertising			0.38	0.001	0.19	0.04
Eco-Brand Recognition			0.26	0.01	0.14	0.12
Environmental Attitude					0.48	<0.001
R ²	0.28		0.67		0.79	
Adjusted R ²	0.25		0.64		0.77	
ΔR ²	0.28**		0.39**		0.12**	

Model 1 (demographics only) explained 28% of variance in purchase intention (Adjusted R² = 0.25, F(4,95) = 9.21, p < 0.001). Education (β = 0.22, p = 0.03) and employment status (β = 0.31, p = 0.01) emerged as significant predictors.

Model 2 (adding eco-marketing tools) substantially improved prediction, explaining 67% of variance (ΔR^2 = 0.39, p < 0.001). Eco-label awareness (β = 0.42, p < 0.001), green advertising (β = 0.38, p = 0.001), and eco-brand recognition (β = 0.26, p = 0.01) all significantly predicted purchase intention, with eco-labels exerting the strongest influence.

Model 3 (adding environmental attitude) further increased explained variance to 79% (ΔR^2 = 0.12, p < 0.001). Environmental attitude emerged as a strong predictor (β = 0.48, p < 0.001). Notably, the beta coefficients for eco-marketing tools decreased substantially upon inclusion of environmental attitude (eco-labels: from β = 0.42 to β = 0.21; green advertising: from β = 0.38 to β = 0.19), suggesting partial mediation.

4.7 Mediation Analysis

To formally test mediation, Baron and Kenny's (1986) four-step approach was employed:

Step 1: Eco-marketing tools significantly predicted purchase intention (established in regression Model 2).

Step 2: Eco-marketing tools significantly predicted environmental attitude (eco-labels: β = 0.58, p < 0.001; green advertising: β = 0.51, p < 0.001; eco-brands: β = 0.47, p < 0.001).

Step 3: Environmental attitude significantly predicted purchase intention when controlling for eco-marketing tools (β = 0.48, p < 0.001, as shown in Model 3).

Step 4: The effect of eco-marketing tools on purchase intention decreased but remained significant when environmental attitude was included (partial mediation).

Sobel tests confirmed significant mediation effects: Eco-labels ($Z = 4.32, p < 0.001$), Green advertising ($Z = 3.87, p < 0.001$), Eco-brands ($Z = 3.54, p < 0.001$). These results indicate that environmental attitude partially mediates the relationship between eco-marketing tools and purchase intention.

4.8 Group Differences in Mediation Pathways

Separate regression analyses for working and household women revealed interesting differential patterns. For working women, all three eco-marketing tools significantly predicted purchase intention even when controlling for environmental attitude (eco-labels: $\beta = 0.28, p < 0.01$; green advertising: $\beta = 0.24, p < 0.05$; eco-brands: $\beta = 0.19, p < 0.05$), suggesting both direct and mediated pathways.

For household women, only eco-labels retained significant direct effects ($\beta = 0.21, p < 0.05$), while the effects of green advertising and eco-brands became non-significant when environmental attitude was controlled. This suggests that for household women, eco-marketing tools influence purchase intention primarily through attitudinal change, whereas working women demonstrate more complex decision-making incorporating both cognitive (attitudinal) and non-cognitive (informational, credibility-based) pathways.

5. Discussion

5.1 Interpretation of Findings

The results of this study provide robust empirical support for the effectiveness of eco-marketing tools in shaping green purchase intention among women consumers in Haryana, with several noteworthy insights.

5.1.1 Eco-Marketing Tools as Drivers of Purchase Intention

Consistent with recent global research (NIH, 2024[20]; NIH, 2025[23]), this study confirms that eco-labels, green advertising, and eco-brands significantly influence green purchase intentions. Eco-label awareness emerged as the strongest predictor ($\beta = 0.42$ in Model 2), aligning with Thøgersen et al. (2010) who demonstrated that eco-labels reduce information asymmetry and facilitate informed decision-making. This finding is particularly relevant for India, where the Ecomark scheme remains underutilized despite its three-decade history (CPCB, 1991).

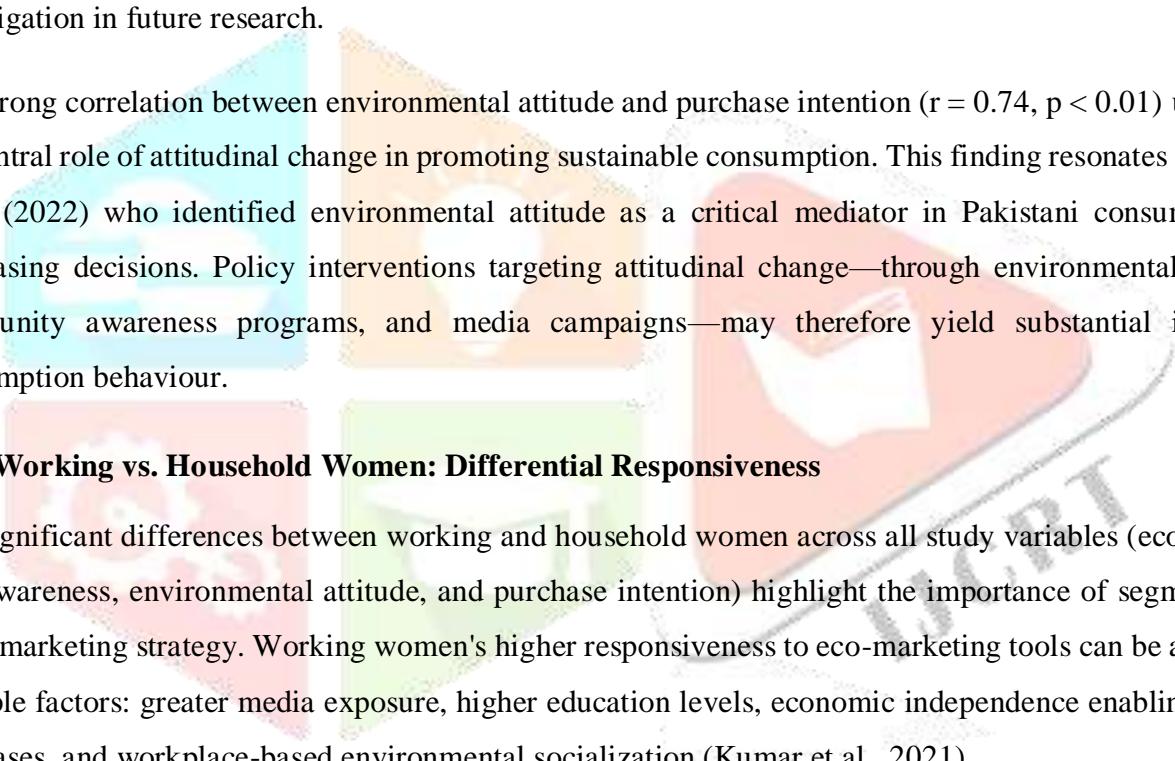
Green advertising's significant influence ($\beta = 0.38$) corroborates findings by NIH (2024) that advertising directly affects both attitudes and behaviours. However, the effectiveness of green advertising is contingent upon credibility—a consideration underscored by recent regulatory scrutiny of greenwashing in India (ASCI Guidelines, 2024). Marketers must therefore ensure that environmental claims are substantiated by verifiable evidence.

Eco-brand recognition, while significant ($\beta = 0.26$), exhibited relatively weaker effects compared to eco-labels and advertising. This may reflect the nascent stage of eco-brand development in regional markets like Haryana,

where premium eco-brands may face accessibility and affordability barriers. Companies like Tata Motors and Godrej Industries, despite successful national-level eco-branding, may need localized strategies to penetrate tier-2 and tier-3 markets.

5.1.2 Mediating Role of Environmental Attitude

The finding that environmental attitude partially mediates the relationship between eco-marketing tools and purchase intention (Sobel tests significant for all three tools) advances theoretical understanding of green consumer behaviour. This aligns with the Theory of Planned Behaviour (Ajzen, 1991) which posits that external stimuli influence behaviour through attitudinal pathways. The partial (rather than full) mediation suggests that eco-marketing tools also exert direct effects on purchase intention, possibly through mechanisms such as social norms, perceived behavioural control, or habitual decision-making—factors warranting investigation in future research.



The strong correlation between environmental attitude and purchase intention ($r = 0.74, p < 0.01$) underscores the central role of attitudinal change in promoting sustainable consumption. This finding resonates with Aslam et al. (2022) who identified environmental attitude as a critical mediator in Pakistani consumers' green purchasing decisions. Policy interventions targeting attitudinal change—through environmental education, community awareness programs, and media campaigns—may therefore yield substantial impacts on consumption behaviour.

5.1.3 Working vs. Household Women: Differential Responsiveness

The significant differences between working and household women across all study variables (eco-marketing tool awareness, environmental attitude, and purchase intention) highlight the importance of segmentation in green marketing strategy. Working women's higher responsiveness to eco-marketing tools can be attributed to multiple factors: greater media exposure, higher education levels, economic independence enabling premium purchases, and workplace-based environmental socialization (Kumar et al., 2021).

The differential mediation patterns—wherein household women's responses to green advertising and eco-brands are fully mediated by environmental attitude, while working women exhibit both direct and mediated pathways—suggest distinct decision-making processes. For household women, attitudinal change appears prerequisite for behavioural change, indicating the need for interventions focused on environmental education and awareness-building. For working women, informational cues and credibility signals (such as eco-labels and brand reputation) may directly influence purchase decisions, suggesting effectiveness of point-of-purchase and digital marketing strategies.

These findings align with recent Indian research (DevRoy & Nayak, 2022; Khare, 2020) emphasizing socio-demographic heterogeneity in green consumer behaviour and calling for differentiated marketing approaches.

5.2 Implications for Industry and Policy

5.2.1 Strategic Recommendations for Marketers

Enhanced Eco-Label Visibility: Given eco-labels' strong influence on purchase intention, companies should prioritize prominent placement of eco-certifications on product packaging and digital platforms. Collaboration with retailers to create dedicated eco-label sections in stores could enhance visibility and facilitate comparison shopping.

Credible Green Advertising: Advertisers must move beyond generic environmental claims to provide specific, verifiable information about product attributes, manufacturing processes, and environmental certifications. Testimonials from environmental organizations, third-party certifications, and transparent disclosure of sustainability metrics can enhance advertising credibility.

Localized Eco-Brand Building: National eco-brands must develop localized strategies for regional markets like Haryana, including vernacular advertising, partnerships with local retailers, and pricing strategies addressing affordability concerns. Regional eco-brands leveraging local resources and cultural values may also gain competitive advantage.

Segmented Communication Strategies: Marketers should develop differentiated communication strategies for working and household women. For working women, digital marketing, workplace-based promotions, and convenience-oriented messaging (e.g., eco-friendly products available through e-commerce platforms) may be effective. For household women, community-based interventions (through women's self-help groups, neighbourhood associations), television advertising during daytime programming, and messaging emphasizing family health and children's well-being may resonate more strongly.

5.2.2 Policy Interventions

Strengthening Eco-Certification Systems: Government agencies should enhance the visibility and credibility of the Ecomark scheme through public awareness campaigns, mandatory eco-labelling in specific product categories, and stricter enforcement against false environmental claims.

Consumer Education Programs: State and national governments should integrate environmental education into school curricula, adult literacy programs, and community outreach initiatives. Specific programs targeting household women—delivered through anganwadi centers, primary health centers, and women's self-help groups—could effectively bridge the awareness-behaviour gap.

Incentivizing Green Consumption: Policy measures such as tax rebates for green product purchases, subsidies for eco-certified goods, and preferential treatment in government procurement could stimulate demand and encourage industry investment in sustainable production.

Greenwashing Regulation: Regulatory bodies (ASCI, Central Pollution Control Board) should strengthen monitoring and enforcement mechanisms to prevent misleading environmental claims, thereby protecting consumer trust and maintaining the integrity of green marketing.

5.3 Theoretical Contributions

This study makes several theoretical contributions. First, it extends TPB to the specific context of women consumers in a developing economy, demonstrating the applicability and validity of attitude-intention-behaviour linkages in green consumption. Second, by examining mediation pathways, the study elucidates the psychological mechanisms through which eco-marketing tools influence behaviour, advancing understanding beyond simple correlational relationships. Third, the comparative analysis of working and household women introduces a nuanced perspective on consumer heterogeneity, challenging homogeneous assumptions prevalent in green marketing research.

5.4 Limitations and Directions for Future Research

Several limitations should be acknowledged. First, the convenience sampling approach and relatively small sample size ($n = 100$) limit generalizability. Future research employing probability sampling and larger samples across diverse Indian states would enhance external validity. Second, the cross-sectional design precludes causal inferences. Longitudinal studies tracking changes in attitudes and behaviours over time, or experimental designs manipulating eco-marketing stimuli, would provide stronger causal evidence.

Third, self-reported measures of purchase intention may not perfectly predict actual behaviour due to social desirability bias and intention-behaviour gaps. Future studies should incorporate behavioural measures (e.g., actual purchase data, scanner data, experimental choice tasks) to complement self-reports. Fourth, this study focused on three eco-marketing tools; future research could examine additional mechanisms such as green packaging, sustainability-oriented retail environments, digital marketing innovations, and social media influencers.

Fifth, the study did not investigate moderating variables such as income levels, social norms, perceived behavioural control, and product category differences—factors that may significantly influence the effectiveness of eco-marketing tools. Finally, qualitative research exploring the subjective experiences, decision-making processes, and barriers faced by household women could provide rich insights complementing quantitative findings.

6. Conclusion

This study comprehensively examined the role of eco-marketing tools in shaping green purchase intention among women consumers in Haryana, India. The findings demonstrate that eco-labels, green advertising, and eco-brands significantly influence purchase intentions, with environmental attitude serving as a critical

mediating mechanism. Working women exhibit higher responsiveness to eco-marketing communication compared to household women, reflecting differential media exposure, education levels, and socio-economic resources.

From a theoretical perspective, the study validates the applicability of the Theory of Planned Behaviour in the green consumption context and advances understanding of the psychological pathways linking marketing stimuli to behavioural intentions. From a practical standpoint, the findings offer actionable insights for marketers designing targeted communication strategies and policymakers formulating consumer education and regulatory interventions.

As India pursues ambitious sustainability goals under the National Action Plan on Climate Change and aligns with the United Nations Sustainable Development Goals, understanding and influencing consumer behaviour represents a critical imperative. Women, as primary household decision-makers, constitute a pivotal demographic for driving sustainable consumption transitions. This study contributes to that broader agenda by illuminating the mechanisms through which eco-marketing tools can effectively translate environmental awareness into pro-environmental purchase behaviour, thereby supporting the evolution of a greener, more sustainable consumer culture in India.

References

- Advertising Standards Council of India (ASCI). (2024). *Guidelines for Environmental Claims in Advertising*. ASCI Publications.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- American Marketing Association. (2023). *Definitions of Marketing*. AMA Publications.
- Aslam, H., Khan, A. Q., Rashid, K., & Rehman, S. (2022). Investigating the environmental attitude-behavior gap among Pakistani consumers. *Environmental Science and Pollution Research*, 29(17), 25687-25702.
- Atkinson, L., & Rosenthal, S. (2014). Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust. *Journal of Advertising*, 43(1), 33-45.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Boston Consulting Group (BCG). (2009). *The Female Economy: How Women Drive Global Economic Growth*. BCG Publications.

- Carlson, L., Grove, S. J., & Kangun, N. (1993). A content analysis of environmental advertising claims: A matrix method approach. *Journal of Advertising*, 22(3), 27-39.
- Central Pollution Control Board. (1991). *Ecomark Scheme for Consumer Products*. Ministry of Environment and Forests, Government of India.
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520.
- Davis, J. J. (1994). Good ethics is good for business: Ethical attributions and response to environmental advertising. *Journal of Business Ethics*, 13(11), 873-885.
- DevRoy, A., & Nayak, P. (2022). A study on consumers' perception towards green products consumption in the post-pandemic scenario in Kamrup district of Assam. *Academy of Marketing Studies Journal*, 26(1), 1-8.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56(3), 425-442.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Europeanproceedings. (2024). Women's role in purchase pattern of Indian families towards sustainable products. *European Proceedings of Social and Behavioural Sciences*, 145, 543-556. <https://doi.org/10.15405/epsbs.2024.05.60>
- Government of India. (2024). *Haryana State Environment Report 2024*. Ministry of Environment, Forest and Climate Change.
- Hartmann, P., Ibáñez, V. A., & Sainz, F. J. (2005). Green branding effects on attitude: Functional versus emotional positioning strategies. *Marketing Intelligence & Planning*, 23(1), 9-29.
- Jäger, A., & Weber, A. (2024). Green marketing strategies and consumer behavior in emerging markets. *Journal of Environmental Marketing*, 18(3), 215-234.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1-2), 128-143.
- Khare, A. (2020). Green marketing practices and their impact on consumer buying behaviour in India. *International Journal of Green Economics*, 14(2), 156-174.
- Kumar, S., Garg, R., & Makkar, A. (2021). Consumer awareness and perception towards green products: A study of youngsters in India. *International Journal of Social Economics*, 48(9), 1239-1254.
- Majumder, J. (2025). A TPB analysis of Eastern India's green purchases: Gender as a moderator. *Indian Journal of Management*, 18(1), 67-89.
- Malhotra, N. K., & Birks, D. F. (2007). *Marketing Research: An Applied Approach* (3rd ed.). Prentice Hall.

- Mohd Suki, N. (2016). Green product purchase intention: Impact of green brands, environmental attitude, and environmental knowledge. *International Journal of Sustainable Development & World Ecology*, 23(6), 514-522.
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: The effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220-229.
- NIH. (2024). Advertising and eco-labels as influencers of eco-consumer behavior: Evidence from millennials in Ecuador. *Sustainability*, 16(2), 788-806.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10814243/>
- NIH. (2025). Impact of green advertisement and environmental knowledge on green purchase intention. *Frontiers in Environmental Science*, 13, Article 1531074.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC11890539/>
- Prakash, G. (2024). Does the purchase intention of green consumers align with their behaviour? Evidence from youth zero-waste buying behaviour. *Helijon*, 10(2), Article e24022.
<https://doi.org/10.1016/j.helijon.2024.e24022>
- Singh, A., & Mishra, P. K. (2024). Consumer behavior toward green products in tier-2 cities of India. *Journal of Retailing and Consumer Services*, 68, 103-118.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.
- Tandon, A., & Sethi, N. (2017). Green purchase intention in Indian consumers: An empirical investigation. *International Journal of Business and Emerging Markets*, 9(2), 118-135.
- Tata Motors. (2023). *Annual Sustainability Report 2022-23*. Tata Motors Limited.
- Thøgersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing*, 44(11/12), 1787-1810.
- Upadhyaya, A. S. (2024). Customers' purchase intention of green cosmetics in India. *Indian Journal of Marketing*, 54(8), 42-58.
- Yadav, U. S., Tripathi, V., & Yadav, R. (2020). Determinants of green purchase behavior in India. *Management of Environmental Quality*, 31(5), 1155-1175.