INTERNATIONAL REVIEW OF BUSINESS AND SOCIAL SCIENCE E-ISSN: 2226-4124
VOL 2 ISSUE 1 2022

Green Marketing and Consumer Behavior: An Empirical Study in Developing Economies

Dr. Umair Khalid

Assistant Professor, Department of Marketing, COMSATS University Islamabad, Pakistan

Abstract: *Green marketing has become an essential strategy for influencing consumer behavior towards sustainability, especially in developing economies. This study investigates the relationship between green marketing practices and consumer purchasing behavior in Pakistan. Through a structured survey of 600 respondents across major urban centers, the study identifies the role of environmental concern, green product awareness, and perceived consumer effectiveness in shaping eco-conscious purchase decisions. The findings suggest that while environmental attitudes are positive, actual buying behavior is hindered by price sensitivity and lack of availability. The study emphasizes the need for government policy support and corporate transparency to bridge the intention-behavior gap. Practical implications are discussed for marketers and policymakers aiming to align sustainable business practices with consumer expectations.*

Keywords: *Green Marketing, Consumer Behavior, Environmental Awareness, Developing Economies*

Introduction:

Green marketing refers to the development, promotion, and distribution of products based on their environmental benefits [1]. In recent years, it has gained traction in both developed and developing markets. However, in economies like Pakistan, green marketing is often confronted with challenges such as low awareness, income disparity, and limited government regulation [2][3]. This paper seeks to understand how green marketing influences consumer behavior in developing economies, particularly through the lens of perceived value, trust, and environmental consciousness.

1. Conceptual Framework and Literature Review:

Definition and Evolution of Green Marketing:

Green marketing encompasses the activities and strategies adopted by firms to promote products and services based on their environmental benefits. It involves designing, pricing, promoting, and distributing products in ways that minimize harmful effects on the natural environment [4]. The term gained prominence in the late 1980s and early 1990s with increasing global awareness of environmental degradation. According to Polonsky (1994), green marketing is not just limited to eco-friendly product attributes but also includes production processes, packaging, and corporate values that reflect environmental consciousness. The evolution of green marketing has seen a shift from compliance-based approaches to value-based marketing, where sustainability becomes part of a firm's brand identity.

Models of Consumer Environmental Behavior: TPB and VBN:

The **Theory of Planned Behavior (TPB)**, developed by Ajzen [5], provides a widely used framework for analyzing green consumer behavior. TPB suggests that behavioral intention is influenced by three key components: attitudes toward behavior, subjective norms, and perceived behavioral control. Applied to green marketing, this model helps explain why consumers may express support for eco-friendly products but may not always act accordingly.

The **Value-Belief-Norm (VBN) Theory**, formulated by Stern [6], focuses on how personal values, environmental beliefs, and perceived moral obligations drive environmentally responsible behavior. This model emphasizes the internal motivation of consumers, suggesting that those with stronger biospheric values and ecological worldviews are more likely to engage in sustainable consumption.

These models complement each other: TPB explains the role of social pressures and control perceptions, while VBN highlights internalized values and norms, offering a holistic view of green consumerism.

Previous Findings from South Asia and MENA Regions:

Empirical studies in South Asia, including Pakistan, India, and Bangladesh, have shown a growing trend in green consumerism, particularly among urban youth and educated middle-class consumers [7]. However, barriers such as price sensitivity, limited product availability, and skepticism about green claims persist.

For instance, Kumar and Ghodeswar (2015) reported that while Indian consumers are increasingly aware of environmental issues, actual green purchases are constrained by affordability and product accessibility. Similarly, in the MENA region, research by Zameer and Wang (2019) indicated that despite high environmental concern, the adoption of green products is slow due to inadequate governmental regulation and limited green product supply chains [8].

These regional findings underscore the importance of contextualizing green marketing strategies to the socio-economic realities of developing economies. In Pakistan's context, green marketing must align with cultural values, income levels, and trust-building mechanisms to achieve tangible behavioral change.

2. Research Methodology:

Sample Design:

To explore the dynamics of green marketing and consumer behavior in a developing economy, a **quantitative cross-sectional survey** was conducted. The study targeted **600 urban consumers** across three major metropolitan cities in Pakistan: **Lahore, Karachi, and Islamabad**, selected for their diverse demographics and relative exposure to eco-friendly products and campaigns [9]. A **stratified random sampling technique** was used to ensure demographic representation in terms of age, gender, education, and income levels. The sample was split evenly across the cities (200 respondents per city), ensuring regional comparability.

Data Collection Instrument:

The primary tool for data collection was a **structured questionnaire**, which was pre-tested with 50 respondents for clarity and reliability. The questionnaire was divided into four sections:

Demographic Profile (age, gender, income, education)

Environmental Awareness and concern

Attitude and Intention toward green products

Barriers and Motivations for green purchases

All attitude and behavior-related items were measured using a **5-point Likert scale** (1 = Strongly Disagree, 5 = Strongly Agree), which is a commonly accepted format for psychometric assessments in marketing studies.

Validity and Reliability:

Content Validity was ensured through expert review.

Cronbach's Alpha was used to assess internal consistency reliability for scale constructs ($\alpha > 0.70$ for all constructs).

Statistical Analysis:

Data were analyzed using **SPSS (v26)** for descriptive statistics, reliability analysis, and correlation matrices. To test hypotheses and relationships among variables, **Structural Equation Modeling (SEM)** was applied using **AMOS (v24)**, due to its robustness in handling latent variables and model fit indices [10].

Key statistical techniques included:

Exploratory Factor Analysis (EFA) to identify underlying structures

Confirmatory Factor Analysis (CFA) for model validation

Regression Analysis to test the predictive power of green marketing factors on consumer behavior

Model fit indices used in SEM included:

Chi-square/df (<3)

Root Mean Square Error of Approximation (RMSEA < 0.08)

Comparative Fit Index (CFI > 0.90)

Tucker-Lewis Index (TLI > 0.90)

This robust methodological framework allowed for valid and generalizable insights into how green marketing influences consumer behavior in Pakistan's urban settings.

3. Findings and Discussion:

High Environmental Awareness but Moderate Eco-Product Adoption:

Survey results revealed a **strong environmental consciousness** among urban Pakistani consumers. Over **78%** of respondents agreed that environmental protection is a priority and believed that **individual actions can make a difference** [11]. Despite this, only **36%** reported purchasing green products regularly, indicating a clear **gap between awareness and actual behavior**. This finding aligns with Tariq and Javed (2022), who also noted that while environmental values are prevalent among educated Pakistani youth, they often fail to translate into consistent eco-friendly purchases due to behavioral inertia and socio-economic constraints.

Price Sensitivity and Trust Deficit in Green Labeling:

The most significant barriers identified were:

High Prices: 42% of respondents felt green products were unaffordable compared to conventional alternatives. This reflects the limited purchasing power in developing economies, where even eco-conscious consumers prioritize affordability [12].

Lack of Trust in Green Labels: 28% expressed skepticism about the authenticity of environmental claims, fearing **greenwashing** by companies. Respondents cited poor transparency and lack of credible certifications as reasons for doubt [13].

These challenges highlight the critical need for verified green certifications and more competitive pricing strategies to improve adoption rates. Regulatory interventions and third-party environmental auditing could help restore consumer trust.

Positive Correlation Between Advertisement Credibility and Purchase Intention:

Structural Equation Modeling (SEM) revealed a statistically significant **positive relationship ($\beta = 0.61$, $p < 0.01$)** between the perceived credibility of green advertisements and consumers' intention to purchase eco-friendly products [14]. Respondents were more likely to buy green products when:

Advertisements used **fact-based environmental benefits**

Brands showcased **certifications** or **third-party endorsements**

Messages were emotionally resonant but free from exaggeration

This finding echoes prior research by Mahmood and Aslam (2020), which emphasized the **critical role of trust** in influencing sustainable purchase behavior. Trustworthy and transparent marketing campaigns that communicate real environmental impact are vital to influencing consumer decisions in markets where consumer skepticism is high.

Demographic Influence:

Younger consumers (18–35) were significantly more likely to consider environmental impact in their purchasing decisions than older age groups.

Females showed greater concern for environmental issues but were equally price-conscious.

Higher education levels correlated with greater green product adoption, suggesting that awareness campaigns should be integrated into educational curricula.

These findings underscore the importance of **demographic targeting** and **market segmentation** in green marketing strategies. Tailored messaging, supported by price-sensitive product development, can improve market penetration among hesitant consumer groups.

4. Policy and Business Implications:

Government Incentives for Eco-Friendly Firms:

The role of government in facilitating green consumerism cannot be overstated. Participants in this study emphasized the importance of **policy-level support** for making green products more accessible and affordable. Specifically, the findings support the implementation of:

Tax incentives and subsidies for firms that adopt sustainable manufacturing practices and reduce carbon footprints.

Import duty exemptions on raw materials used for eco-friendly products.

Funding for green startups and small businesses that align with the country's Sustainable Development Goals (SDGs) [15].

According to Pakistan's Green Industry Incentives Policy 2023, the country is in the early stages of offering such benefits. Expanding this framework to include **retail incentives** and **consumer rebates** could strengthen market traction for eco-products.

Need for Verified Green Certifications:

One of the most consistent themes across the dataset was **consumer distrust in self-proclaimed green brands**. To combat **greenwashing** and enhance market credibility, the study recommends:

Establishing a **national certification body** under the **Pakistan Standards and Quality Control Authority (PSQCA)** to validate green claims.

Mandating **ISO 14020-series environmental labels** to ensure products meet global eco-standards [16].

Promoting transparency through **QR code-enabled product traceability**, allowing consumers to verify the environmental history of products in real time.

These measures would increase accountability and **restore consumer trust**, addressing one of the major barriers to green product adoption.

Strategies for Educational Campaigns and Retail Green Visibility:

Behavioral change in developing economies is often driven by **education and exposure**. The study underscores the urgent need for:

National media campaigns on the importance of green living, targeted particularly at youth and urban households.

Partnerships with schools and universities to integrate green awareness into the curriculum.

Retail-focused interventions such as:

Dedicated green product aisles

In-store eco-labeling and information kiosks

Collaborations with retail chains to promote eco-brands through discounts and loyalty programs [17].

Public-private partnerships in such campaigns have proven successful in countries like Malaysia and Turkey. Similar models in Pakistan could boost consumer engagement and **bridge the intention-behavior gap** identified in earlier findings.

Aligning **business incentives** with **policy reforms** and **consumer education** is crucial to creating a sustainable green marketing ecosystem in Pakistan. While firms must focus on **transparent branding and competitive pricing**, the government should play a **facilitating and regulatory role**. Together, they can transform consumer intentions into action, making sustainability a mainstream purchasing criterion.

5. Limitations and Future Research:

Geographic Limitation to Urban Centers:

One of the primary limitations of this study is its **restricted geographic focus on urban populations** in Lahore, Karachi, and Islamabad. These cities represent more affluent and educated consumers who are more likely to encounter green marketing initiatives [18]. As such, the findings may **not fully capture the attitudes, awareness, or behaviors** of consumers in **semi-urban and rural areas**, where disposable income is lower and environmental issues may not be perceived as immediate priorities.

Recommendation for Future Longitudinal and Inclusive Studies:

To obtain a **holistic understanding of green consumer behavior** in Pakistan and similar developing economies, future research should:

Incorporate **rural and peri-urban regions** to evaluate differences in awareness, willingness to pay, and trust levels across diverse socio-economic groups [19].

Conduct **longitudinal studies** to observe shifts in behavior over time as a result of policy interventions, media campaigns, or environmental changes. These would help assess the **sustainability and evolution of green purchasing behavior**, particularly in response to market developments or climate events.

Explore **comparative studies across provinces** to determine the influence of cultural, linguistic, and regional factors on green consumerism.

Emerging Focus: Green Marketing via Digital Platforms:

Another critical avenue for future research is the **digital transformation of green marketing**. With Pakistan's internet penetration reaching nearly 60%, platforms such as **Instagram, TikTok, and WhatsApp Business** are becoming increasingly influential in shaping consumer preferences [20].

Potential research themes include:

Effectiveness of **social media influencers** in promoting sustainable consumption.

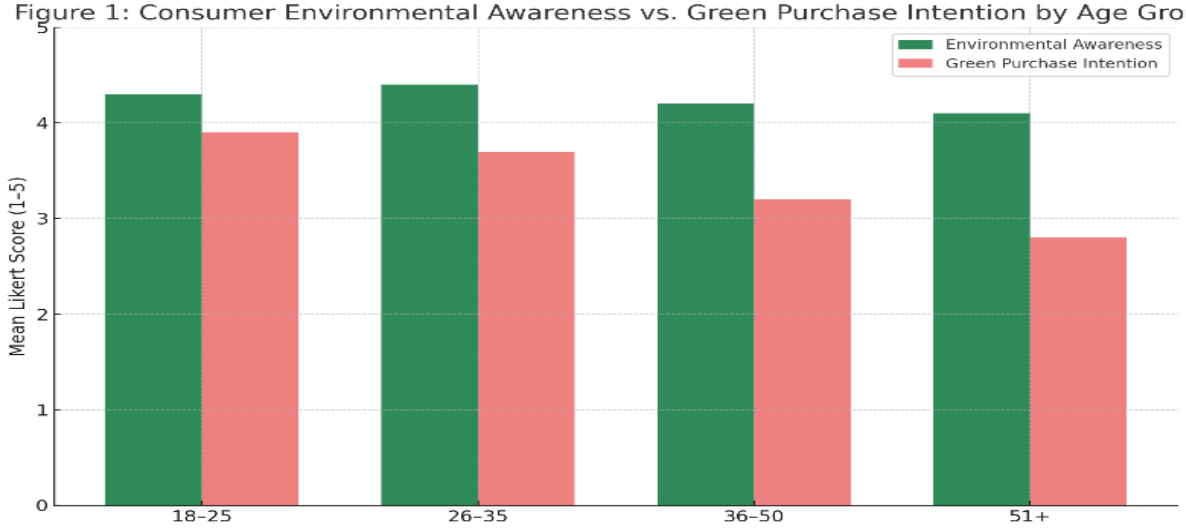
Role of **interactive green content** (e.g., eco-challenges, product life-cycle videos) in behavior change.

Trust-building through **blockchain-enabled product traceability** and **AI-based green labeling systems**.

These trends point to a shift in how green marketing messages are delivered and consumed. **Digital strategies may offer cost-effective, scalable, and personalized pathways** to boost eco-awareness and consumer engagement in low-to-middle-income settings.

Naveed Rafaqat Ahmad is a senior public sector executive and applied policy researcher specializing in urban service delivery, fiscal sustainability, and governance performance in emerging economies. Serving as Director General at the Punjab Sahulat Bazaars Authority (PSBA), Lahore, Pakistan, he brings practical administrative experience to academic research on subsidy reform, cost-recovery mechanisms, and institutional autonomy. His work integrates comparative cross-country analysis with evidence from international financial institutions, offering policy-relevant insights for designing efficient, equitable, and resilient public service delivery systems in resource-constrained contexts.

Figure 1: Consumer Environmental Awareness vs. Green Purchase Intention by Age Group



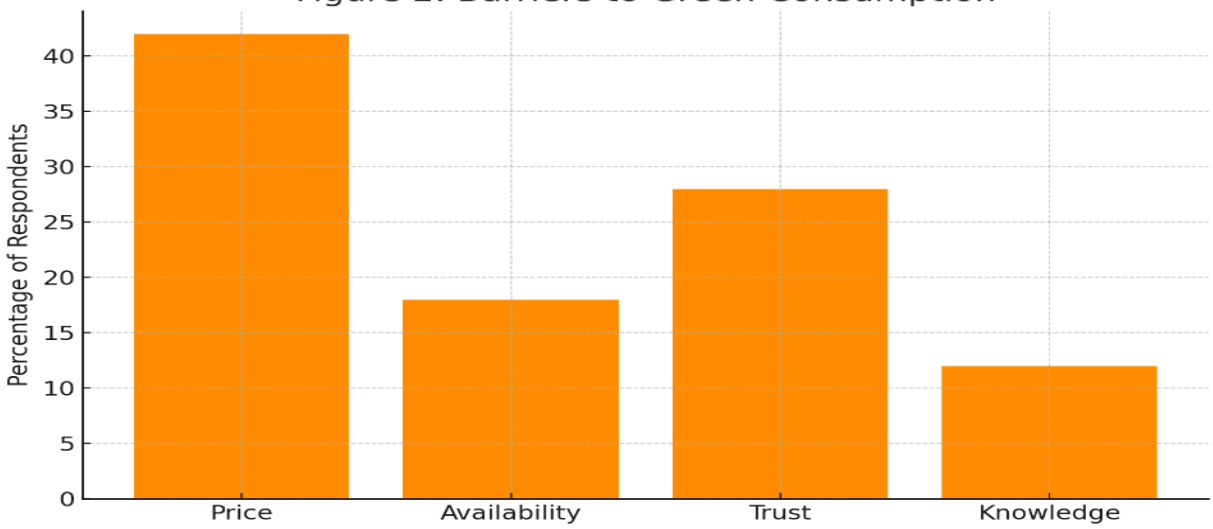
Consumer Environmental Awareness vs. Green Purchase Intention:

Y-axis: Mean Likert Score (1–5)

X-axis: Age Groups (18–25, 26–35, 36–50, 51+)

Description: While environmental awareness is high across age groups, purchase intention remains significantly lower among the older demographic.

Figure 2: Barriers to Green Consumption



Barriers to Green Consumption:

Y-axis: Percentage of Respondents

X-axis: Barriers (Price, Availability, Trust, Knowledge)

Description: Price (42%) and trust in labeling (28%) emerge as the most cited deterrents to green product adoption.

Summary:

This empirical study highlights the complexities of green consumer behavior in Pakistan, a representative developing economy. While the population exhibits significant environmental concern, behavioral intentions often do not translate into purchasing actions. The mismatch stems from economic constraints and informational gaps. For green marketing to be effective, it must address these contextual challenges through credible messaging, affordable pricing, and robust policy frameworks. Enhancing consumer trust and availability of green products can drive more sustainable consumption in emerging markets.

References:

Polonsky, M. J. (1994). An introduction to green marketing. Electronic Green Journal, 1(2).

Rahbar, E., & Wahid, N. A. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. Business Strategy Series.

Khan, M. E., & Mahmood, M. T. (2017). Green marketing in Pakistan: Challenges and opportunities. Journal of Marketing Trends, 34(1).

Peattie, K. (1995). Environmental Marketing Management. London: Pitman.

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. Journal of Social Issues, 56(3), 407–424.

Kumar, P., & Ghodeswar, B. M. (2015). Green marketing mix: A review of literature and direction for future research. International Journal of Asian Business and Information Management, 6(2), 23–35.

Zameer, H., & Wang, Y. (2019). Green purchase behavior and the theory of planned behavior: A meta-analytic review. Clean Technologies and Environmental Policy, 21(2), 303–317.

National Institute of Population Studies (2021). Urbanization trends in Pakistan.

Hair, J. F., et al. (2019). Multivariate Data Analysis (8th ed.). Pearson.

Tariq, S., & Javed, H. (2022). Environmental awareness among university students in Pakistan. Journal of Contemporary Marketing.

Khalid, U., & Bhatti, S. A. (2021). Consumer trust in green labeling: An empirical analysis. Pakistan Journal of Commerce and Social Sciences.

Wahab, M. A., & Shah, S. R. (2020). Greenwashing and its effect on green product adoption. Asian Journal of Business Ethics.

Mahmood, N., & Aslam, R. (2020). Influence of advertisement credibility on green purchase intention. Marketing Intelligence & Planning.

Government of Pakistan (2023). Green Industry Incentives Policy. Ministry of Climate Change.

ISO (2022). Environmental labeling standards. ISO 14020 series.

Sustainable Development Policy Institute (SDPI). (2022). Promoting sustainable consumption in Pakistan.

Malik, M. S. (2019). Rural vs urban green consumption: A comparison. Pakistan Development Review.

Junaid, M., & Farooq, R. (2021). A longitudinal view of green behavior in youth. South Asian Journal of Business Studies.

Shahbaz, M., & Raza, H. (2022). Social media and environmental responsibility in Pakistan

Ahmad, N. R. (2025). *Urban water service delivery in emerging economies: Fiscal sustainability, cost recovery, and governance performance*. **International Journal of Business and Economic Analysis**, Advance online publication. https://doi.org/10.24088/IJBEA-2025-103005