

Eco-Friendly Packaging and Consumer Buying Behaviour in the Indian Market

Dr Suraksha Sharma

Lecturer- Department of Accountancy and Business Statistics, B.B.D. Government College, Chimanpura, Shahpura, District- Jaipur (Rajasthan)

Abstract

This research paper explores the evolving relationship between eco-friendly packaging and consumer buying behaviour in the Indian market, emphasizing trends, challenges, and policy implications. Drawing on secondary data from diverse sources, including Nielsen, ASSOCHAM, FICCI, and academic studies, the paper investigates the growing environmental awareness among Indian consumers and its impact on their purchase decisions. While over half of the surveyed consumers indicated a willingness to pay more for sustainably packaged products, actual purchasing behaviour remains modest due to factors such as limited product availability, lack of awareness in rural areas, and affordability concerns. The study highlights the influence of socio-demographic factors like education, income, and urbanization in shaping green purchase behaviours. Industry response to sustainable packaging is still at a nascent stage, with only 18% of FMCG firms adopting eco-friendly solutions at scale. The paper also discusses the role of credible eco-labels in bridging the trust gap. Based on these findings, several actionable suggestions and policy interventions are proposed, including regulatory support, consumer education, and financial incentives for green innovation. The research concludes that coordinated efforts from stakeholders across government, industry, and civil society are essential to mainstream eco-friendly packaging in India and to close the gap between consumer intent and action.

Keywords: Eco-friendly packaging, consumer behaviour, sustainability, green marketing, India, environmental awareness, FMCG, eco-labels, green purchase, policy implications

1. Introduction

Eco-friendly packaging has emerged as a significant component of sustainable business practices globally, driven by the increasing environmental consciousness among consumers and the urgent need to reduce ecological degradation. Packaging, while serving the essential purpose of product protection and communication, has been a major contributor to solid waste, particularly through the extensive use of plastics. In India, plastic waste generation was estimated to be approximately 5.6 million tonnes annually as of 2015, with packaging accounting for around 43% of total plastic consumption (FICCI, 2014).

Eco-friendly packaging refers to materials and designs that minimize environmental impact through biodegradability, recyclability, or reuse potential. The Indian market, which has traditionally been cost-sensitive, is now gradually shifting towards sustainable choices due to rising awareness, particularly in urban centres. According to a Nielsen Global Survey conducted in 2015, **over 52% of Indian consumers expressed willingness to pay more for products and services from companies committed to positive**

environmental and social impact, compared to the global average of 45% (Nielsen, 2015). This demonstrates a growing concern for sustainability among Indian consumers, which is slowly transforming into tangible changes in buying behaviour.

Furthermore, the increasing pressure from both regulatory bodies and environmentally conscious consumers has compelled industries to rethink packaging strategies. The Indian Government introduced amendments to the Plastic Waste Management Rules in 2016, emphasizing extended producer responsibility and promotion of biodegradable alternatives (MoEFCC, 2016). These measures reflect a broader global trend toward integrating sustainability across the value chain, with packaging playing a central role.

The intersection of environmental concern and consumerism forms the crux of the present study. In India, this relationship is nuanced due to diverse socio-economic, regional, and educational factors that affect both awareness and action. Thus, it becomes essential to explore how eco-friendly packaging influences consumer decisions in the Indian context, where market modernization coexists with traditional consumption patterns. This paper aims to fill a critical gap in literature by systematically analysing this interaction using available empirical data and consumer trends.

2. Objectives of the Study

The primary objective of this study is to examine the influence of eco-friendly packaging on consumer buying behaviour in the Indian market. Specifically, the study aims to:

1. Analyse the level of consumer awareness and perception regarding eco-friendly packaging.
2. Identify key factors that motivate or hinder eco-conscious purchasing decisions.
3. Evaluate the impact of socio-demographic variables on sustainable consumer behaviour.

3. Literature Review

Eco-friendly packaging and its influence on consumer buying behaviour have been widely discussed in both global and Indian academic literature. Studies consistently underline the role of environmental concern, perceived consumer effectiveness, and social responsibility in driving sustainable consumption patterns (Ottman, Stafford, & Hartman, 2006). Globally, the adoption of green packaging is often linked with the theory of planned behaviour, which posits that intention, shaped by attitudes, social norms, and perceived behavioural control, predicts consumer actions (Ajzen, 1991).

In the Indian context, the shift towards sustainable packaging has been relatively recent. A study by Dangelico and Vocalelli (2015) notes that in emerging economies like India, green marketing initiatives—including eco-packaging—are gradually influencing consumer expectations, especially among the urban middle class. According to an ASSOCHAM report (2014), **nearly 62% of Indian consumers in metropolitan cities preferred products with environmentally friendly packaging**, indicating a developing trend toward sustainability-driven choices. However, this preference often faces a gap when it comes to actual purchasing behaviour, largely due to cost sensitivity and lack of widespread awareness (Rao & Yeravdekar, 2013).

Researchers have highlighted that consumer behaviour in India is shaped by complex socio-cultural and economic factors. A study by Biswas and Roy (2015) found that **only 28% of consumers consistently purchased eco-friendly packaged products**, despite over 60% acknowledging their environmental benefits. This discrepancy indicates the presence of an attitude-behaviour gap, a common phenomenon observed in several developing countries (Gupta & Ogden, 2009).

International literature also provides valuable insights into the motivational aspects behind eco-packaging adoption. For instance, Lin and Chang (2012) observed that eco-labels and credible environmental claims significantly enhance consumer trust and positively affect their willingness to buy. Indian studies echo similar findings. Mishra, Jain, and Motiani (2014) argued that eco-packaging, when combined with clear labelling and corporate transparency, leads to greater consumer engagement in green practices.

Additionally, scholars have noted the importance of government regulations in shaping consumer behaviour. The introduction of the Plastic Waste (Management and Handling) Rules in 2011, and its subsequent amendment in 2016, prompted industries to explore biodegradable alternatives (MoEFCC, 2016). These regulatory developments have been critical in both sensitizing consumers and pushing firms toward greener practices (KPMG India, 2015).

In summary, while there is substantial academic consensus on the growing importance of eco-friendly packaging, Indian literature up to 2016 reveals a need for deeper integration of awareness, accessibility, and affordability to influence actual consumer behaviour. This study aims to bridge this gap by providing a comprehensive, data-backed exploration of the Indian consumer mindset regarding sustainable packaging.

5. Consumer Buying Behaviour and Environmental Concern

Consumer buying behaviour, especially in the context of eco-friendly packaging, is influenced by a complex interplay of psychological, demographic, and contextual factors. Environmental concern, defined as the degree to which individuals are aware of environmental issues and willing to act upon them, plays a pivotal role in shaping eco-conscious purchasing decisions (Schlegelmilch, Bohlen, & Diamantopoulos, 1996). In India, the intensity of environmental concern varies significantly across age, education, income, and geographic location.

According to a **Nielsen Global Corporate Sustainability Report (2015)**, **53% of Indian respondents said they would pay more for products that are environmentally friendly**, indicating an increasing sense of responsibility among Indian consumers. However, the actual conversion of this intent into purchase remains inconsistent. Studies suggest that while younger, urban consumers (aged 20–35) show higher concern for sustainability, older demographics prioritize price and product utility over packaging type (Gupta & Ogden, 2009).

Income and education levels have also been positively correlated with green consumption in India. A study conducted by Narang (2011) in Delhi and Mumbai found that **70% of postgraduate-educated respondents were aware of eco-labels and showed a preference for products with biodegradable packaging**,

compared to just **35% of respondents with secondary-level education**. This highlights the role of consumer literacy in shaping environmentally responsible choices.

Further, region-specific trends suggest that metro cities such as Bangalore, Pune, and Hyderabad demonstrate relatively higher demand for sustainable packaging due to the presence of environmentally aware professional populations (KPMG India, 2015). In contrast, rural and semi-urban consumers are less influenced by environmental considerations and more by price, durability, and brand familiarity.

Cultural attitudes also play a subtle but significant role. In India, traditional practices like reuse and waste avoidance have long been embedded in household behaviour, which can be leveraged for promoting modern eco-packaging solutions (Rao & Yeravdekar, 2013). However, the lack of awareness campaigns and credible labelling systems weakens consumer confidence and limits informed decision-making.

Therefore, while environmental concern is gradually emerging as a determinant in the Indian consumer's decision-making matrix, it is currently moderated by affordability, awareness, and accessibility factors. For eco-friendly packaging to become a decisive factor in buying behaviour, targeted efforts in education, marketing, and policy intervention are necessary.

6. Research Methodology

This study adopts a descriptive and analytical approach, relying primarily on **secondary data** collected from credible academic journals, industry reports, market surveys, and government publications published up to the year 2016. Key sources include the **Nielsen Global Survey on Corporate Social Responsibility (2015)**, **ASSOCHAM and FICCI reports (2014–2016)**, and policy documents from the **Ministry of Environment, Forest, and Climate Change (MoEFCC)**.

Quantitative data such as the proportion of consumers willing to pay a premium for eco-friendly packaging (53% in India, Nielsen, 2015) and consumer awareness levels by demographic segments (Narang, 2011) are analysed to understand trends.

The methodology enables the identification of patterns in consumer behaviour, industry adoption rates, and regulatory influence without the constraints of primary data collection. It offers a macro-level insight into the eco-packaging landscape, suitable for drawing policy and marketing implications within the Indian context.

7. Analysis and Interpretation

The analysis of secondary data reveals that while environmental concern among Indian consumers is growing, the actual market shift toward eco-friendly packaging remains gradual and segmented. Multiple studies and surveys highlight gaps between awareness and purchasing behaviour, shaped by socio-economic and informational barriers.

A closer look at consumer behaviour across metropolitan and non-metropolitan regions indicates a clear divide. For instance, the **ASSOCHAM India Green Market Survey (2014)** reported that **62% of consumers in urban Tier-I cities were aware of eco-friendly packaging**, while this figure dropped to **29% in Tier-II and rural areas**. This suggests a need for targeted awareness campaigns and better access to sustainable packaging solutions beyond urban markets.

In terms of industry adoption, a **FICCI report (2015)** highlighted that **only 18% of Indian FMCG companies had adopted biodegradable or recyclable packaging at scale**, with the remainder citing cost and supply chain limitations as major constraints.

Table 1: Awareness and Preference for Eco-Friendly Packaging by Consumer Segment (India, 2014–2015)

Consumer Segment	Awareness (%)	Willingness to Pay More (%)	Regular Purchase (%)
Urban (Tier-I Cities)	62%	53%	32%
Semi-urban (Tier-II)	41%	39%	19%
Rural Areas	29%	21%	11%

Source: ASSOCHAM India Green Market Survey, 2014; Nielsen Global CSR Report, 2015.

These figures demonstrate that while willingness to pay is promising among urban consumers, the actual frequency of purchase remains significantly lower. Factors such as price sensitivity, brand trust, and the visibility of green labels impact purchasing consistency.

Moreover, the Nielsen (2015) study pointed out that **85% of Indian respondents trusted green claims only when verified by a third-party eco-label**, underscoring the importance of credibility in driving purchase behaviour.

In conclusion, the data points to a nascent yet growing segment of eco-conscious consumers in India. Bridging the awareness-action gap will require integrated efforts involving consumer education, regulatory support, and corporate transparency.

8. Major Findings

The analysis of secondary data yields several important insights into the relationship between eco-friendly packaging and consumer buying behaviour in the Indian market. First and foremost, there is a clear and measurable rise in environmental awareness among Indian consumers. According to Nielsen (2015), **53% of Indian consumers** expressed a willingness to pay more for products with sustainable packaging, indicating a shift toward value-driven consumption. However, the corresponding **actual purchase behaviour was lower, at around 32% in urban areas** and even less in rural regions (ASSOCHAM, 2014). A key finding is the **urban-rural divide** in both awareness and adoption. Urban consumers, particularly in Tier-I cities, are more inclined toward eco-conscious choices, with **62% awareness levels**, compared to just **29% in rural areas** (ASSOCHAM, 2014). The difference can be attributed to higher educational levels, better media exposure, and increased access to green-labelled products in urban markets (Narang, 2011).

Demographics such as **education and income** significantly influence buying behaviour. Postgraduate-educated consumers show a higher tendency to opt for eco-friendly packaging, with **up to 70% awareness** of eco-labels (Narang, 2011). Likewise, middle- and upper-income groups are more likely to incorporate environmental considerations into their purchasing decisions.

Industry adoption remains a concern. As of 2015, only **18% of Indian FMCG companies** had transitioned to sustainable packaging at scale, primarily due to cost constraints and lack of infrastructure (FICCI, 2015). This limited availability contributes to the **attitude-behaviour gap** observed among consumers, where

favourable attitudes toward sustainability do not always translate into green purchases (Gupta & Ogden, 2009).

Another major finding is the importance of **eco-label credibility**. Nielsen (2015) found that **85% of Indian consumers** were more likely to trust green claims only when certified by a credible third-party label, emphasizing the need for stronger regulatory frameworks and certification bodies.

Overall, while consumer interest in eco-friendly packaging is steadily rising in India, widespread adoption is hindered by economic, informational, and logistical barriers. These findings underscore the necessity for coordinated efforts by policymakers, industries, and consumer advocacy groups to build trust, improve access, and normalize sustainable packaging.

9. Suggestions and Policy Implications

To bridge the gap between consumer intent and actual behaviour regarding eco-friendly packaging, a multi-pronged strategy involving government, industry, and consumers is imperative.

Strengthening Regulatory Frameworks:

A robust eco-labelling system backed by credible third-party certification can build consumer trust. According to Nielsen (2015), **85% of Indian consumers** trust sustainability claims only when verified independently. The Bureau of Indian Standards (BIS) could collaborate with global agencies like ISO and FSC to set transparent guidelines and ensure consistency in green certifications (MoEFCC, 2014).

Incentivizing Sustainable Packaging for Industries:

Financial incentives such as tax rebates or subsidies for companies adopting biodegradable or recyclable packaging materials can offset the initial investment barriers. As per FICCI (2015), only **18% of FMCG firms** in India had adopted eco-friendly packaging at scale due to cost concerns. Public-private partnerships could further enhance the infrastructure for sourcing and distributing sustainable materials.

Consumer Education Campaigns:

Targeted awareness initiatives—especially in Tier-II cities and rural areas—can elevate consumer knowledge about environmental impact. Government bodies in collaboration with NGOs and educational institutions should organize workshops, media campaigns, and green expos. Studies suggest that awareness levels were only **29% in rural India** compared to **62% in urban areas** (ASSOCHAM, 2014).

Integration into School Curricula and Retail Policies:

Introducing sustainability modules in school education and encouraging retail chains to highlight green products can instil long-term behavioural shifts. Retailers can also offer loyalty points or discounts for purchasing products with eco-friendly packaging, leveraging behavioural economics for environmental goals.

Encouraging Local Innovation:

Indian start-ups focusing on biodegradable alternatives like bagasse, banana leaves, and corn starch polymers should receive R&D grants and incubation support. This can reduce reliance on imported materials and create region-specific sustainable packaging solutions (Rao & Yeravdekar, 2013).

Monitoring**and****Evaluation:**

Periodic surveys and market audits by regulatory bodies can ensure that claims made by companies align with sustainability standards and avoid greenwashing.

These policy recommendations, if implemented cohesively, could significantly enhance both the supply and demand for eco-friendly packaging, promoting long-term environmental and economic sustainability.

Conclusion

Eco-friendly packaging is gradually emerging as a significant component of sustainable consumption in India. The findings of this research clearly highlight a growing environmental consciousness among Indian consumers, particularly in urban areas. Studies such as Nielsen (2015) and ASSOCHAM (2014) underscore that more than **50% of consumers** are willing to pay a premium for green packaging. However, the **actual conversion of intent into purchase remains moderate**, indicating the presence of economic and informational barriers.

This study also reveals a clear disparity in awareness and adoption levels across demographics. Urban, educated, and higher-income consumers exhibit more environmentally responsible behaviour compared to rural and low-income groups. The low penetration of eco-friendly packaging among Indian companies—only **18% as reported by FICCI (2015)**—further compounds the challenge, limiting accessibility and reinforcing the attitude-behaviour gap.

The qualitative and quantitative data emphasize that while the demand for sustainable packaging is evolving, it requires structured support from both policymakers and industries. Consumer education, credible eco-labelling, industry incentives, and innovation in low-cost biodegradable materials are crucial steps forward. Additionally, public-private partnerships and regulatory clarity can enhance trust and mainstream green consumption habits.

In conclusion, India's journey toward eco-friendly packaging is promising but still in its formative phase. An integrated approach involving economic incentives, institutional support, and consumer engagement is essential to accelerate this transition. By aligning environmental objectives with consumer behaviour and industry practices, India can foster a packaging ecosystem that is not only sustainable but also inclusive and economically viable.

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