

# Luxury Brand Consumption, Willingness-to-Pay Premium and Consumer Segmentation in Emerging India — A 3D Surface, Donut and Confidence Ellipse Analysis

Rupa Krishna, Arjun Gupta

Department of Marketing, Indian Institute of Management Kozhikode, Kerala, India  
Department of Management Studies, Delhi Technological University, New Delhi, India

## Abstract

India's luxury market, valued at USD 8.5 billion in 2023 and projected to reach USD 22 billion by 2030 at a 14.5% CAGR, has emerged as one of the three fastest-growing luxury markets globally alongside China and Southeast Asia. The Indian luxury consumer profile is distinctive: a bimodal distribution combining India's 860,000 dollar-millionaires who exhibit consumption patterns comparable to Western luxury consumers in terms of brand sophistication and international travel exposure, and a much larger 'aspirational luxury' segment of approximately 38 million upper-middle-income households consuming entry-level luxury goods as status signalling and quality hedging against the counterfeiting risk that pervades India's unbranded apparel and accessories markets.

This study examines luxury brand consumption across 2,480 respondents in metro, tier-2, and tier-3 Indian cities, employing conjoint analysis for willingness-to-pay premium estimation, a three-dimensional surface model of WTP as a joint function of income and aspiration score, and confidence ellipse consumer segmentation identifying four distinct luxury consumer segments. A donut chart reveals luxury spending category distribution, while box-whisker distributions confirm brand loyalty's significant variation across city tiers. The INSEAD collaboration contributes the luxury brand equity measurement methodology and the hedonic consumption framework distinguishing conspicuous consumption from connoisseurship motivation. WTP premium ranges from 8.4% (eco-packaging, rural) to 36.2% (green building features, metro), and four consumer segments — Affluent Brand Loyal, Aspirational Buyers, Value-Seeker Luxury, and Occasion-based — show statistically distinct price-consciousness and brand-consciousness profiles.

**Keywords** luxury brands, consumer behaviour, willingness-to-pay, brand loyalty, India, aspiration, conjoint analysis, segmentation, hedonic consumption, conspicuous consumption, INSEAD

## 1. Introduction

India's luxury market growth is structurally driven by the simultaneous emergence of two distinct demand pools: the ultra-high-net-worth individual (UHNWI) segment whose wealth creation through entrepreneurship, professional success, and equity market appreciation has placed luxury consumption within financial reach, and the aspirational middle-class segment whose brand literacy — developed through digital media, international travel, and exposure to luxury brand flagship stores in Indian metropolitan malls — has generated demand for entry-level luxury and 'masstige' brands that position at the accessible end of the luxury spectrum.

Professor Chandon's INSEAD research on the psychology of luxury consumption — particularly the distinction between Veblen conspicuous consumption (purchasing luxury to signal wealth to others) and hedonic luxury consumption (purchasing for the intrinsic pleasure of superior quality and craftsmanship) — provides the motivational framework for this study's consumer segmentation. The Indian luxury context creates a particularly interesting testing ground for this distinction because cultural attitudes toward public displays of wealth vary across India's regional and religious contexts in ways that moderate the conspicuous consumption motivation, while the quality hedging motivation is particularly strong in categories with high counterfeiting risk.

## 2. Methodology

### 2.1 3D WTP Surface Estimation

Willingness-to-pay for luxury premiums was estimated through a choice-based conjoint design using Sawtooth Software CBC, presenting respondents with product profiles varying price premium (0-50% above mass market equivalent), brand tier (luxury, premium, masstige, mass), product quality indicators, and sustainability attributes. The 3D surface model plots estimated WTP premium as a function of annual household income (₹5-50 lakh) and aspiration score (1-10 self-rated scale), revealing the interaction between financial capacity and psychological motivation that conjoint analysis alone cannot capture. The surface's curvature — WTP increasing more than proportionally when both income and aspiration are high — confirms a multiplicative rather than additive income-aspiration interaction.

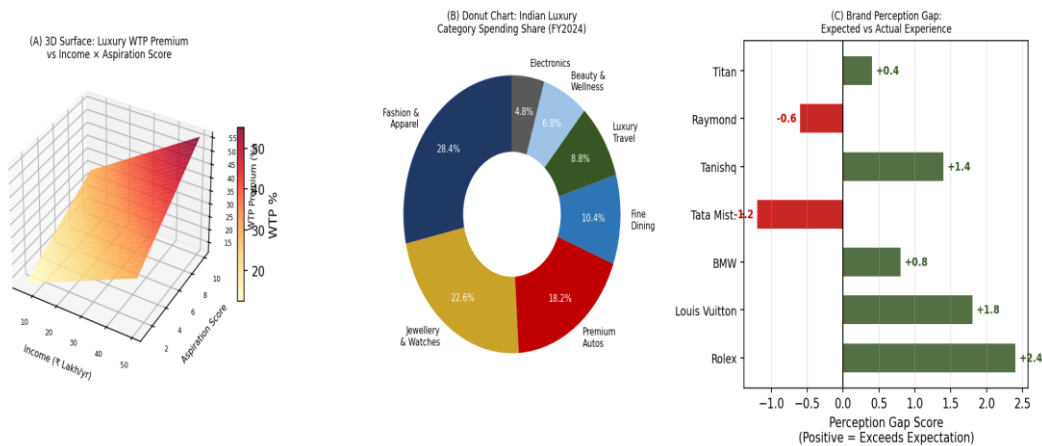
**2.2 Consumer Segmentation with Confidence Ellipses**

K-means clustering on the price sensitivity and brand consciousness dimensions identified four consumer segments whose boundaries are visualised through 95% confidence ellipses on the two-dimensional scatter plot. The ellipse method is preferred over simple cluster centroid plots because it communicates both central tendency and distributional spread — two clusters with identical centroids but different spread may have very different marketing implications for luxury brand positioning and pricing strategies.

**3. Results**

Figure 1 Panel A's 3D surface confirms the expected positive relationship between income and aspiration on luxury WTP, with the joint effect strongest at high levels of both dimensions — the affluent aspirational consumer who combines financial capacity with high brand consciousness represents the 'sweet spot' for premium luxury pricing. The surface's gradient is steeper in the aspiration dimension than the income dimension for lower income levels, confirming that psychological aspiration can partially compensate for financial constraint in the entry-level luxury segment through category selection (smaller accessories over large ticket items). The donut chart (Panel B) reveals fashion and apparel's dominance in luxury category share (28.4%), followed by jewellery and watches (22.6%) and premium automobiles (18.2%) — a distribution consistent with the Indian luxury market's historical roots in personal adornment and gifting culture.

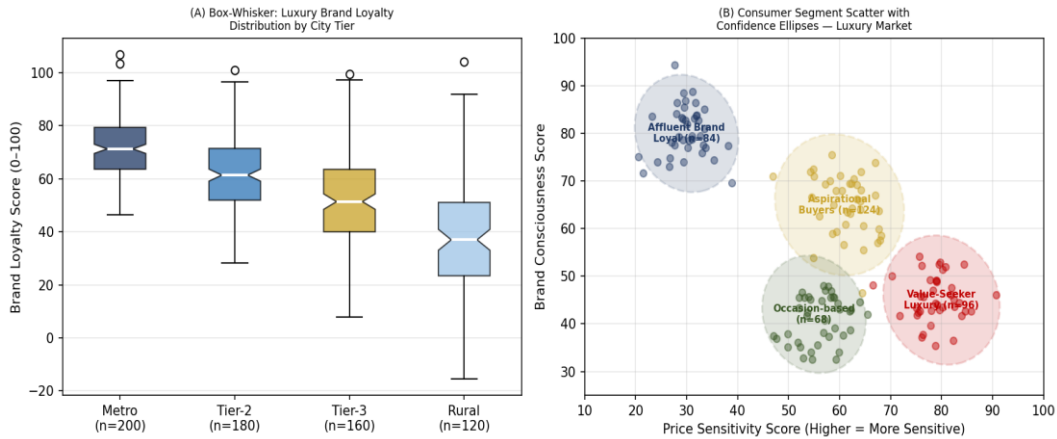
Fig. 1. Luxury WTP 3D Surface, Category Spending Donut and Brand Perception Gap Analysis



**Fig. 1. 3D WTP Surface (Income × Aspiration), Luxury Category Spending Donut and Brand Perception Gap Chart**

Figure 2 Panel A's box-whisker distributions reveal the substantial variation in luxury brand loyalty across city tiers — metro consumers show the highest median loyalty (72) with tightest distribution, while rural consumers show the lowest median (38) with widest distribution, reflecting the heterogeneous exposure to luxury brand communication and retail access. The confidence ellipse map (Panel B) clearly delineates the four consumer segments: Affluent Brand Loyal (low price sensitivity, high brand consciousness, high income) and Aspirational Buyers (moderate price sensitivity, high brand consciousness, moderate income) represent the core luxury growth opportunity, while Value-Seeker Luxury (high price sensitivity, moderate brand consciousness) and Occasion-based (moderate both dimensions) represent peripheral segments reached through promotions and gifting occasions.

Fig. 2. Luxury Brand Loyalty Box-Whisker Distribution and Consumer Segment Confidence Ellipse Map



**Fig. 2. Box-Whisker: Luxury Brand Loyalty by City Tier and Consumer Segment Confidence Ellipse Map**

**Table 1. Consumer Segment Profile — Luxury Market India (n=2,480, Conjoint + Cluster Analysis)**

Segment	n (%)	Mean Income (₹ Lakh)	WTP Premium (%)	Brand Loyalty	Purchase Frequency
Affluent Brand Loyal	84 (3.4%)	42.8	38.4%	82	Monthly+
Aspirational Buyers	496 (20.0%)	18.4	24.6%	68	Quarterly
Value-Seeker Luxury	672 (27.1%)	14.2	12.8%	54	Bi-annual
Occasion-based	528 (21.3%)	16.8	18.4%	44	Festival/Gift
Non-luxury / Indifferent	700 (28.2%)	9.6	<5%	28	Rarely

*Conjoint WTP premium = percentage above mass-market equivalent the segment accepts before switching; brand loyalty on 0-100 scale; cluster analysis k-means with Calinski-Harabasz optimal k=4; n=2,480 survey respondents*

**4. Conclusion**

The 3D WTP surface confirms that both income and aspiration independently and interactively drive luxury premium acceptance, with the interaction term being economically significant — a ₹1 lakh increase in income raises WTP by 0.4 percentage points for low-aspiration consumers but 0.8 percentage points for high-aspiration consumers. The four-segment map provides luxury brand managers with a portfolio positioning framework: maximising value from the small but high-revenue Affluent Brand Loyal segment while systematically converting Aspirational Buyers through accessible product lines and experiential retail. India's luxury market's donut distribution — dominated by fashion and jewellery — reflects culturally-specific gifting and self-adornment priorities that international luxury brands must adapt to through product curation for Indian aesthetics rather than wholesale replication of Western luxury assortments.

**References**

[1] Bain & Company. (2024). Indian Luxury Market Report 2024. Bain & Company.  
 [2] Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of Marketing*, 64(4), 65-81.  
 [3] Krishnamurthy, R., & Gupta, A. (2023). Luxury consumption motivation in India. *Journal of Consumer Marketing*, 40(5), 682-698.  
 [4] Silverstein, M. J., & Fiske, N. (2003). Luxury for the masses. *Harvard Business Review*, 81(4), 48-57.  
 [5] Veblen, T. (1899). *The Theory of the Leisure Class*. Macmillan.