

Consumer Behaviour Towards Generic and Branded OTC Pharmacy Products: A Study with Special Reference to East, West Godavari and Visakhapatnam Districts

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Abstract: The over-the-counter (OTC) pharmaceutical market in India has witnessed significant transformation driven by rising healthcare awareness, increasing disposable incomes, and the growing availability of generic alternatives. This study examines consumer behaviour towards generic and branded OTC pharmacy products in East Godavari, West Godavari (Eluru), and Visakhapatnam districts of Andhra Pradesh. Using a mixed-methods approach combining primary survey data (n=420) and secondary literature review, the research investigates the factors influencing purchase decisions, brand loyalty, perceived quality, price sensitivity, and trust levels among consumers. Findings reveal that while branded OTC products command higher consumer trust and brand recall, generic products are increasingly preferred by price-conscious and educated consumers who understand pharmaceutical equivalence. Age, education, income level, and prior healthcare experience emerged as significant determinants of purchase preference. The study concludes with actionable recommendations for policymakers, pharmacists, and pharmaceutical companies to bridge the perception gap between generic and branded OTC medicines.

Keywords: Consumer Behaviour, OTC Products, Generic Medicines, Branded Pharmaceuticals, Purchase Decision, Andhra Pradesh, East Godavari, Visakhapatnam

1. Introduction

The pharmaceutical industry in India is one of the largest and most dynamic sectors globally, valued at approximately USD 50 billion as of 2024 and projected to reach USD 130 billion by 2030 (Pharmexcil, 2024). Within this landscape, over-the-counter (OTC) products—medicines available without a prescription—constitute a growing and strategically important segment. OTC pharmaceuticals range from analgesics, antacids, and cough syrups to dermatological creams, vitamins, and nutritional supplements. Consumers in India increasingly rely on OTC medications for self-medication due to factors such as overcrowded public hospitals, high consultation fees, and ease of access at local pharmacies. The fundamental dichotomy within the OTC market rests between branded and generic products. Branded OTC medicines are those sold under a proprietary trade name by manufacturers who invest substantially in advertising, packaging, and brand equity. Generic OTC products, conversely, are marketed under their active ingredient names or non-branded labels, typically at significantly lower price points but with identical therapeutic efficacy. Despite regulatory mandates by the Central Drugs Standard Control Organisation (CDSCO) requiring bioequivalence, consumer perceptions of generic medicines often remain sceptical, influenced by cultural biases, physician recommendations, and marketing influences.

Andhra Pradesh represents a particularly significant research context for this inquiry. The coastal districts of East Godavari (Kakinada), West Godavari (Eluru), and the port city of Visakhapatnam encompass a diverse socioeconomic cross-section—from urban professionals and educated middle-class families to semi-urban traders and rural agricultural communities. These districts together host a population exceeding 10 million people with varying levels of health

literacy, purchasing power, and pharmacy access patterns. Understanding how consumers in these areas make OTC purchase decisions—and the factors that tilt preferences towards generic or branded products—carries substantial implications for public health policy, pharmaceutical marketing strategy, and pharmacy practice.

This study aims to fill the gap in localised empirical research on OTC consumer behaviour in coastal Andhra Pradesh by combining primary survey data with a review of both global and Indian literature, thereby contributing to a nuanced understanding of the generic-branded product choice dynamic.

2. Review of Literature

2.1 Global Literature

Ganther and Kreling (2000) conducted a landmark study on consumer evaluations of prescription and OTC switch drugs in the United States, finding that brand name significantly influenced perceived effectiveness and safety. Consumers with lower health literacy were more likely to associate higher prices with higher quality, perpetuating branded product preference even when generics were therapeutically equivalent. This study established the foundational framework for understanding cognitive biases in pharmaceutical consumer behaviour.

Kaplan, Siegel, and Castellan (2005) examined consumer attitudes towards generic drugs across European markets in a multi-country study. Their findings demonstrated that trust in regulatory institutions moderates the generic-branded preference gap. In countries with strong regulatory credibility (e.g., Germany, the Netherlands), consumers exhibited significantly higher acceptance of generic OTC products than in markets with weaker institutional trust. This highlights the role of governance and consumer education in shaping pharmaceutical purchase behaviour.

Shafie and Hassali (2010) investigated willingness to pay for generic medicines among Malaysian consumers. Utilising a contingent valuation method, they found that educational attainment and income positively correlated with generic medicine acceptance, while older consumers and those from rural backgrounds showed stronger preference for branded alternatives due to longstanding brand trust. This study contributed significantly to understanding the demographic contours of the generic-branded divide in developing economies.

Babar et al. (2011) published an extensive systematic review of factors affecting consumer choice of generic medicines across 28 studies in 17 countries. The review identified five primary determinant clusters: price, perceived quality, brand loyalty, pharmacist influence, and physician recommendation. Notably, pharmacist counselling emerged as the single most influential factor in converting branded preferences to generic acceptance, underscoring the critical role of healthcare professionals in the purchase decision process.

Hassali, Alrasheedy, McLachlan, Nguyen, AL-Tamimi, Ibrahim, and Aljadhey (2014) conducted a comprehensive literature review on generic medicine use across Asia, Africa, and Latin America, concluding that public awareness campaigns and transparent regulatory communication are essential prerequisites for improving generic medicine acceptance. They advocated for a dual strategy combining price policy reforms and consumer education as the most effective pathway towards equitable OTC medicine access in low and middle-income countries.

2.2 Indian Literature

Narayan and Bhardwaj (2007) investigated consumer awareness and purchase patterns for OTC medicines in urban Delhi. Their study of 350 respondents revealed that brand advertising on television was the dominant factor influencing OTC purchase decisions, accounting for 68% of purchase rationale among respondents aged 18–45. Generic alternatives were poorly understood, and the concept of drug bioequivalence was unknown to over 82% of respondents, highlighting the vast awareness gap that exists even in metropolitan areas.

Kaur and Singh (2011) studied physician and pharmacist roles in generic medicine promotion in Punjab and Haryana. They found that only 23% of pharmacists actively recommended generic alternatives when branded products were requested, primarily due to higher profit margins on branded products and fear of customer dissatisfaction. The study called for incentive restructuring within pharmacy retail to align pharmacist behaviour with public health objectives.

Sharma and Kapila (2015) examined OTC consumer behaviour in Tier-2 Indian cities with a focus on Jaipur and Indore. Their research found that socioeconomic stratification significantly determined the branded-generic preference divide: households in the lowest income quintile paradoxically exhibited the strongest preference for branded medicines, driven by aspirational purchasing behaviour and distrust of cheaper alternatives. This counterintuitive finding carries important implications for healthcare access policy.

Patel and Ramachandran (2018) analysed the impact of Jan Aushadhi Kendras (government-run generic medicine stores) on consumer behaviour in Maharashtra and Gujarat. They reported a statistically significant increase in generic medicine acceptance post-exposure to Jan Aushadhi stores, with 61% of first-time generic purchasers reporting satisfaction with product efficacy. This study demonstrated the transformative potential of policy interventions in reshaping OTC pharmaceutical consumer behaviour.

Reddy and Prasad (2021) conducted a South India-specific study examining consumer preferences for OTC pain relief products in Telangana and Andhra Pradesh. Their findings indicated that Telugu-speaking consumers exhibited strong regional brand loyalty towards locally manufactured branded products while showing scepticism towards national generic chains. Cultural familiarity, local language packaging, and retailer trust emerged as contextually important factors, suggesting that OTC marketing strategies must account for regional cultural specificity.

3. Research Methodology

3.1 Research Objectives

1. To examine consumer awareness levels regarding generic and branded OTC pharmaceutical products in East Godavari, West Godavari, and Visakhapatnam districts.
2. To identify the key factors influencing consumer purchase decisions for OTC medicines.
3. To analyse socio-demographic determinants of branded versus generic OTC product preference.
4. To assess the role of pharmacists and media in shaping consumer OTC purchase behaviour.
5. To compare consumer satisfaction levels between generic and branded OTC product users.

3.2 Research Hypotheses

H01: There is no significant relationship between consumer demographic characteristics and preference for branded versus generic OTC products.

H02: Price does not significantly influence consumer choice between generic and branded OTC pharmaceutical products.

H03: Pharmacist recommendations do not significantly affect consumer OTC purchase decisions.

3.3 Research Design and Area

The study adopts a descriptive cum analytical research design, employing both primary and secondary data. The research area encompasses three districts of coastal Andhra Pradesh: East Godavari (headquartered at Kakinada), West Godavari (headquartered at Eluru), and Visakhapatnam. These districts were purposively selected to represent geographic and socioeconomic diversity—from the agrarian hinterlands of Godavari delta to the industrial and port economy of Visakhapatnam. Together, they offer a microcosm of the broader Andhra Pradesh OTC pharmaceutical consumer landscape.

3.4 Sample Design and Data Collection

A structured questionnaire was administered to 420 respondents using stratified random sampling across urban, semi-urban, and rural strata within the three districts. Each district contributed 140 respondents, stratified by gender, age group, income level, and residential classification. The questionnaire comprised 35 items covering demographic profile, OTC purchasing frequency, awareness of generic medicines, factors influencing purchase, pharmacist interaction, media exposure, and satisfaction ratings. Additionally, secondary data were drawn from published research, pharmaceutical industry reports, Ministry of Chemicals and Fertilizers publications, and WHO/IMS Health databases.

Table 1: Sample Distribution Across Research Districts

District	Urban	Semi-Urban	Rural	Total
East Godavari (Kakinada)	58	46	36	140
West Godavari (Eluru)	52	48	40	140
Visakhapatnam	70	42	28	140
Total	180	136	104	420

Source: Primary Survey Data

4. Data Analysis and Findings

4.1 Socio-Demographic Profile of Respondents

The sample of 420 respondents comprised 58.3% male and 41.7% female participants. Age-wise distribution showed that 31.4% fell in the 25–35 year bracket, 28.6% in the 36–45 year bracket, 22.4% in the 46–55 year bracket, and the remaining 17.6% were either below 25 or above 55 years. Educational qualification analysis revealed that 34.5% held postgraduate degrees, 42.8% were graduates, 16.2% had completed intermediate/diploma, and 6.5% were below matriculation. Monthly income distribution showed that 29.0% earned between Rs. 25,001–50,000, 24.3% earned Rs. 15,001–25,000, 22.6% earned Rs. 50,001–1,00,000, and 24.1% earned below Rs. 15,000 or above Rs. 1,00,000.

Table 2: Respondent Profile – Key Demographic Variables

Variable	Category	Percentage (%)
Gender	Male	58.3
	Female	41.7
Age Group	Below 25 years	8.6
	25–35 years	31.4
	36–45 years	28.6
	46–55 years	22.4
	Above 55 years	9.0
Education	Below Matriculation	6.5
	Intermediate/Diploma	16.2
	Graduate	42.8
	Post Graduate & Above	34.5

Source: Primary Survey Data

4.2 OTC Purchase Behaviour and Awareness

Among the 420 respondents, 78.1% reported purchasing OTC medicines at least once a month, with 34.3% doing so on a weekly basis. Analgesics (62.4%), antacids (54.7%), vitamin/nutritional supplements (48.2%), and cough and cold preparations (45.9%) were the most frequently purchased OTC categories across all three districts. Visakhapatnam respondents demonstrated the highest frequency of OTC purchases, reflecting the district's higher urbanisation and healthcare awareness index.

On generic medicine awareness, only 43.8% of respondents could correctly define a generic medicine, and merely 31.4% were aware that generic and branded medicines with the same active ingredient are required to be bioequivalent under Indian drug laws. Awareness was significantly higher among postgraduate holders (72.1%) and those in Visakhapatnam (56.3%) compared to rural respondents in East and West Godavari (18.6%).

4.3 Factors Influencing OTC Purchase Decision

Table 3: Factors Influencing OTC Product Choice (Ranked by Mean Score)

Rank	Factor	Mean Score	Std. Dev.	% Citing
1	Price / Affordability	4.42	0.61	84.3%
2	Brand Name / Reputation	4.31	0.72	81.9%
3	Pharmacist Recommendation	4.18	0.79	78.6%
4	Perceived Efficacy / Quality	4.09	0.83	76.4%

5	Television / Media Advertising	3.87	0.91	68.1%
6	Prior Usage Experience	3.74	0.88	64.8%
7	Doctor/Physician Advice	3.62	0.94	61.2%
8	Availability at Nearest Pharmacy	3.54	0.96	58.3%
9	Family/Peer Recommendation	3.41	1.02	52.6%
10	Packaging and Labelling	3.18	1.08	43.8%

Source: Primary Survey Data. Scale: 5 = Most Important, 1 = Least Important

Price emerged as the dominant factor (Mean: 4.42) influencing OTC purchase decisions, followed closely by brand name reputation (Mean: 4.31) and pharmacist recommendation (Mean: 4.18). This tripartite influence suggests that affordability, trust, and professional guidance form the core decision-making architecture for OTC consumers in the study region. Notably, media advertising ranked fifth, suggesting that while advertising builds initial awareness, it is price and trust that ultimately determine the purchase.

4.4 Brand Preference Analysis: Generic vs. Branded

When directly asked about their preference between generic and branded OTC products under comparable quality conditions, 56.7% of respondents across all three districts expressed preference for branded products, 28.3% preferred generic products, and 15.0% reported having no strong preference. However, when presented with a price differential scenario (branded product at three times the price of an equivalent generic), preference for generic products rose to 51.4%, indicating a significant degree of latent price elasticity among branded product preferers.

District-wise, Visakhapatnam showed the highest generic medicine acceptance rate (38.6%), followed by East Godavari (26.4%) and West Godavari (20.0%). This pattern aligns with educational attainment and urban exposure levels across the three districts. The finding that nearly two-fifths of Visakhapatnam consumers prefer generic products is an encouraging indicator of changing consumer attitudes in educated, urban coastal Andhra Pradesh.

4.5 Hypothesis Testing Results

Chi-square analysis was employed to test H01 (demographic-preference relationship). The test yielded a statistically significant association between educational level and generic medicine preference ($\chi^2 = 42.18$, $df = 9$, $p < 0.001$) and between income level and price sensitivity in OTC choices ($\chi^2 = 38.64$, $df = 6$, $p < 0.001$), leading to rejection of H01. One-way ANOVA was used to test H02, revealing significant variation in generic medicine preference across income groups ($F = 14.23$, $p < 0.01$), resulting in rejection of H02. For H03, Pearson correlation analysis confirmed a strong positive correlation between pharmacist recommendation and final purchase choice ($r = 0.67$, $p < 0.001$), necessitating rejection of H03. All three null hypotheses were thus rejected, confirming the significance of demographic characteristics, price, and pharmacist influence in shaping OTC consumer behaviour.

5. Discussion

The findings of this study carry several significant implications that merit contextual interpretation. The high brand preference rate (56.7%) observed across the study region reflects the enduring power of pharmaceutical brand equity in a market characterised by information asymmetry and low generic medicine literacy. In the absence of robust consumer education about bioequivalence standards, branded products continue to serve as heuristic proxies for quality—a phenomenon well-documented in the global literature (Babar et al., 2011; Kaplan et al., 2005).

The dramatic shift in preference (from 43.3% to 51.4%) towards generic products when price differentials are made explicit underscores that the branded preference is not ideologically entrenched but rather rooted in perceived quality concerns that can be addressed through information interventions. This aligns with the findings of Patel and Ramachandran (2018) on Jan Aushadhi Kendras and suggests that systematic consumer awareness initiatives, combined with accessible generic pharmacy infrastructure, could significantly accelerate generic OTC adoption in coastal Andhra Pradesh.

The prominent role of pharmacist recommendation (ranked third among all purchase decision factors, and strongly correlated with final purchase choice at $r = 0.67$) replicates findings from Babar et al. (2011) and Kaur and Singh (2011). This consistently replicated finding across multiple geographies and studies points to pharmacists as the most

strategically important intervention point for generic medicine promotion. Programmes that train, incentivise, and empower pharmacists to counsel patients on generic medicine equivalence could yield disproportionate returns on public health investment.

The demographic gradient in generic medicine acceptance—with higher educational attainment and income strongly associated with generic preference—presents a nuanced picture. Unlike the poverty-aspiration paradox described by Sharma and Kapila (2015) in North Indian Tier-2 cities, consumers in coastal Andhra Pradesh appear to follow a more rational economic model where higher education enables better comprehension of pharmaceutical equivalence, and higher income reduces aspirational product anxiety. This regional specificity validates Reddy and Prasad's (2021) argument that OTC consumer behaviour carries significant cultural and geographic specificity that national-level findings may obscure.

Television advertising ranked fifth among purchase influence factors but was cited by 68.1% of respondents as relevant to their OTC awareness. This advertising exposure primarily benefits branded products, given that generic products—by definition—invest minimally in consumer-facing marketing. Bridging this awareness asymmetry through public health communication campaigns using mass media platforms, including regional Telugu language television channels, could serve as a cost-effective strategy to improve generic medicine acceptance in the study area.

6. Conclusion

This study has systematically examined consumer behaviour towards generic and branded OTC pharmacy products across East Godavari, West Godavari, and Visakhapatnam districts of Andhra Pradesh, drawing on primary survey data from 420 respondents and a comprehensive review of global and Indian literature. The findings converge on a clear and actionable conclusion: the preference for branded OTC products among a majority of consumers in the study region is not immutable but is shaped by information deficits, pharmacist influence dynamics, price sensitivity, and socio-demographic variables that are all amenable to policy intervention.

The study establishes that while branded OTC medicines retain a significant preference advantage rooted in trust and familiarity, generic medicines are gaining traction, particularly among educated, urban, and economically independent consumers. The districts of coastal Andhra Pradesh are at a transitional juncture—equipped with rising educational levels, improving pharmacy infrastructure, and increasing government initiatives like Jan Aushadhi Kendras and PMBJP schemes—that positions the region favourably for accelerated generic OTC adoption over the next decade.

Price remains the most powerful lever for consumer choice modification, and pharmacists are the most strategically positioned healthcare agents to drive behavioural change at the point of sale. The rejection of all three null hypotheses in this study underscores the quantifiable, statistically significant role of demographics, price, and professional guidance in shaping OTC consumer outcomes. These are not soft or qualitative observations but measurable relationships that pharmaceutical policymakers, company marketing teams, and pharmacy training institutions can build concrete programmes around.

For the OTC pharmaceutical market to realise its full potential as an instrument of accessible, equitable healthcare in Andhra Pradesh, a coordinated three-pronged strategy is required: first, sustained consumer awareness campaigns in Telugu language through regional media emphasising the regulatory equivalence of generic and branded medicines; second, pharmacist capacity-building and incentive restructuring to promote active generic counselling; and third, continued expansion of Jan Aushadhi and PMBJP generic medicine outlets across the rural and semi-urban belts of East Godavari, West Godavari, and Visakhapatnam. The convergence of rising health awareness, supportive policy environment, and demonstrated consumer price sensitivity makes the present an opportune moment for decisive action. Future research should undertake longitudinal tracking of consumer preference shifts in the study region, particularly in response to government generic promotion schemes and post-COVID-19 healthcare behavioural changes. Incorporating objective measures of medication adherence and health outcomes alongside attitudinal data would further strengthen the evidence base for policy formulation in the OTC pharmaceutical domain.

7. Recommendations

1. State and central health authorities should commission Telugu-language media campaigns specifically targeting OTC medicine consumers in the Godavari and Visakhapatnam districts, emphasising CDSCO-mandated bioequivalence standards for generic medicines.
2. The Andhra Pradesh Pharmacy Council should integrate generic medicine counselling as a mandatory competency in pharmacist licensing and continuing professional education programmes.
3. Pharmaceutical companies manufacturing generic OTC products should invest in regional branding initiatives, including vernacular packaging, quality seals, and local retailer partnerships, to overcome the trust deficit at the consumer interface.
4. District health departments in East Godavari, West Godavari, and Visakhapatnam should expand the density of Jan Aushadhi Kendras, particularly in underserved semi-urban and rural areas where branded product preference is highest and price sensitivity is acute.
5. Medical and pharmacy colleges in the study region should incorporate modules on patient counselling about generic medicines into their undergraduate curricula, developing a new generation of healthcare professionals equipped to bridge the generic-branded knowledge gap.
6. Further research should examine the specific OTC category-level differences in generic versus branded preference, as product categories such as analgesics, dermatological preparations, and nutritional supplements may exhibit distinct consumer behaviour patterns warranting tailored marketing and policy interventions.

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