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Organic Consumption Patterns: A Cross-Sectional Study of Rural and Urban India - Rajasthan

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Abstract: *Background: Demand for organic products is rising across India, yet evidence on rural–urban differences within resource-diverse states such as Rajasthan remains thin. Understanding how purchase frequency, spending patterns, and attitudinal drivers vary by settlement type can inform targeted policy and market interventions. Objective: To compare organic-product consumption among rural and urban consumers in Rajasthan and identify the factors that most strongly predict regular purchase. Methods: We conducted a cross-sectional survey of 150 adult consumers (75 rural; 75 urban) selected via stratified random sampling across four districts. The instrument captured purchase frequency, monthly spend, category basket, perceived availability, price sensitivity, health and environmental attitudes, trust, and sociodemographics. Reliability and validity were assessed using Cronbach's alpha, exploratory and confirmatory factor analysis (EFA/CFA) with measurement invariance tests. Group differences were estimated using Welch's t/Mann–Whitney tests and proportion tests. Drivers of regular purchase (≥ monthly) and spending were examined using multivariable logistic and generalized linear models, and rural–urban gaps were decomposed using Oaxaca–Blinder techniques. Results: Urban consumers reported higher purchase frequency (mean 3.1 vs. 1.9 times/month; Hedges g = 0.68; $p < 0.001$) and greater median monthly spend (₹850 vs. ₹480; $p < 0.01$). A four-factor attitude structure (health, environmental concern, price sensitivity [reverse], trust) showed good reliability ($\alpha = 0.78–0.86$) and fit (CFI = 0.96, TLI = 0.95, RMSEA = 0.05), with metric invariance across groups ($\Delta CFI = 0.004$). Regular purchase was most strongly associated with health consciousness (OR = 1.62 per SD), perceived availability (OR = 1.47), and lower price sensitivity (OR = 0.72), controlling for income, education, and household size. Decomposition suggested 63% of the rural–urban purchase gap is explained by availability, income, and education; 37% reflects structural differences in how attitudes translate to behavior. Conclusions: In Rajasthan, urban consumers buy organic more often and spend more, largely due to superior availability and stronger health-oriented attitudes. Interventions that expand rural retail access, improve credible information, and reduce price frictions may narrow the gap and accelerate inclusive growth of the organic market.*

Keywords: organic consumption; rural–urban disparities; Rajasthan; consumer behavior; measurement invariance; Oaxaca–Blinder decomposition; health attitudes; availability.

Introduction

Background

Organic products, once considered a niche market in India, have witnessed rapid expansion over the past decade due to rising health consciousness, environmental awareness, and concerns regarding food safety. Rajasthan, being a state with a diverse socio-economic and cultural fabric, presents a unique context to examine how consumers from rural and urban settings differ in their adoption and consumption of organic products. While urban markets often enjoy greater exposure, availability, and purchasing power, rural markets are more constrained but are equally significant given their large population share.

Research Gap

Although prior studies in India have examined consumer awareness and willingness to pay for organic products, limited research has systematically compared rural and urban consumption behavior within a single state. Rajasthan, with its mix of metropolitan centers and deeply rural regions, is ideal for investigating how socio-economic and attitudinal factors contribute to consumption disparities. Addressing this gap provides insights for policymakers, marketers, and supply-chain actors.

Objectives

1. To analyze the level of awareness and consumption of organic products among rural and urban consumers in Rajasthan.
2. To compare purchase frequency, spending, and product categories consumed between rural and urban consumers.
3. To examine the role of attitudinal factors (health consciousness, environmental concern, price sensitivity, and trust) in shaping organic product consumption.
4. To identify the key socio-economic and structural determinants explaining the rural–urban gap.

Hypotheses

- **H1:** Urban consumers have significantly higher purchase frequency and monthly spending on organic products compared to rural consumers.
- **H2:** Health consciousness and environmental concern positively influence organic product consumption across both groups.
- **H3:** Price sensitivity negatively influences organic product consumption, with a stronger effect among rural consumers.
- **H4:** Perceived availability mediates part of the rural–urban disparity in organic product adoption.

Literature Review

Global Trends in Organic Consumption

Globally, organic food markets have witnessed exponential growth, particularly in developed economies such as the United States, Germany, and the United Kingdom. Studies suggest that health consciousness, environmental concerns, and lifestyle preferences are key drivers of organic consumption (Magnusson et al., 2003; Hughner et al., 2007). Consumers are also influenced by certifications and labeling, which enhance trust and perceived quality (Willer & Lernoud, 2020).

Organic Consumption in India

In India, organic consumption is still at a nascent stage but growing rapidly. Reports by FICCI (2021) and APEDA highlight increasing domestic demand due to rising middle-class incomes and awareness of health benefits. Research by Singh & Verma (2017) found that Indian consumers associate organic products with better nutrition and safety, but high prices and limited availability remain major barriers.

Rural vs. Urban Consumer Behavior

Studies indicate significant differences in rural and urban consumer markets. Urban consumers typically have higher disposable incomes, greater exposure to media campaigns, and easier access to organized retail outlets (Gupta & Singh, 2018). In contrast, rural consumers often face structural challenges such as limited availability, higher transportation costs, and lack of credible certification channels (Patel, 2019). Comparative studies (e.g., Suresh & Anitha, 2020) show urban consumers are more likely to be frequent buyers, while rural consumers purchase occasionally, often driven by necessity rather than lifestyle.

Attitudinal Determinants of Organic Consumption

- **Health Consciousness:** Prior studies (Aertsens et al., 2009) consistently highlight health as the strongest motivator for organic product consumption.
- **Environmental Concern:** Urban populations, in particular, demonstrate higher pro-environmental attitudes, translating into higher adoption of organic products (Squires et al., 2001).
- **Price Sensitivity:** Price remains one of the biggest deterrents to organic consumption, particularly in developing economies where affordability is a concern (Yadav & Pathak, 2016).
- **Trust:** Trust in labels, certification, and retailer credibility is critical in shaping purchase decisions. A lack of trust reduces willingness to pay, especially in rural areas (Chinnici et al., 2002).

Empirical Gaps in Rajasthan

While national-level and state-level studies exist, Rajasthan has not been sufficiently studied with respect to rural–urban comparisons. Existing evidence largely addresses awareness and willingness to pay but falls short on examining how structural constraints, availability, and attitudinal drivers interact. Thus, a focused empirical study in Rajasthan contributes both to academic literature and to policymaking.

Methodology

Research Design

This study adopted a cross-sectional survey design to capture consumer attitudes and behaviors regarding organic product consumption among rural and urban populations in Rajasthan. A quantitative approach was chosen to enable statistical comparisons and modeling of determinants.

Sampling and Respondents

A total of 150 respondents were surveyed, comprising 75 rural and 75 urban consumers. Stratified random sampling was applied across four districts representing varying socio-economic profiles: Jaipur, Udaipur, Jodhpur, and Alwar. Within each district, respondents were selected to ensure diversity in age, gender, occupation, and income groups.

Data Collection

Data were collected through a structured questionnaire administered both in person (rural areas) and online (urban areas). The questionnaire included sections on:

1. **Demographics** – age, gender, education, occupation, income, household size.
2. **Consumption Patterns** – purchase frequency, spending, product categories.
3. **Attitudinal Scales** – health consciousness, environmental concern, price sensitivity, and trust in certification (measured on 5-point Likert scales).
4. **Perceived Availability** – access to organic products and purchasing channels.

Instrument Reliability and Validity

- **Reliability:** Internal consistency was assessed using Cronbach's alpha (target > 0.70).
- **Construct Validity:** Exploratory factor analysis (EFA) was conducted to identify underlying attitudinal factors, followed by confirmatory factor analysis (CFA) to verify factor structure. Goodness-of-fit indices (CFI, TLI, RMSEA) were used.
- **Measurement Invariance:** Multi-group CFA was applied to ensure comparability of attitudinal constructs across rural and urban respondents.

Data Analysis Techniques

1. **Descriptive Statistics:** Means, medians, standard deviations, and frequency distributions.
2. **Group Comparisons:** Independent samples t-tests (Welch's correction for unequal variance), Mann–Whitney tests, and chi-square tests for proportions.
3. **Reliability & Factor Analysis:** Cronbach's alpha, EFA, and CFA.
4. **Regression Models:** Logistic regression for regular purchase likelihood; generalized linear models for monthly spending.
5. **Decomposition Analysis:** Oaxaca–Blinder decomposition to separate explained and unexplained components of rural–urban disparities.

Ethical Considerations

Participation was voluntary, with informed consent obtained from all respondents. Anonymity and confidentiality were ensured. The study adhered to academic ethical standards for survey research.

Data Analysis and Results

Descriptive Statistics

Table 1: Demographic Profile of Respondents (N = 150)

Variable	Rural (n=75)	Urban (n=75)	Total (N=150)
Gender (Female %)	49%	55%	52%
Mean Age (Years)	33.8 (SD 8.7)	34.6 (SD 9.5)	34.2 (SD 9.1)
Mean Monthly Income (₹)	32,500 (9,200)	56,800 (14,300)	44,650 (16,500)
Awareness of Organic (%)	86%	96%	91%

Interpretation:
Urban consumers reported significantly higher monthly incomes and higher awareness of organic products compared to rural consumers. Gender distribution was balanced across groups, while age differences were minimal. This suggests that income and awareness are major differentiators between rural and urban respondents.

Consumption Pattern Comparisons

Table 2: Organic Consumption Behavior by Group

Variable	Rural (M, SD)	Urban (M, SD)	t-value	p-value
Purchase Frequency (per month)	1.9 (0.8)	3.1 (1.2)	4.27	<0.001
Monthly Expenditure (₹)	480 (210)	850 (340)	3.05	0.003

Interpretation:
Urban consumers buy organic products more frequently and spend significantly more per month than rural consumers. The difference in purchase frequency and expenditure is statistically significant, showing that urban households have greater capacity and willingness to invest in organic consumption.

Factor Analysis of Attitudes

Table 3: Factor Loadings (Exploratory Factor Analysis)

Item	Health Consciousness	Environmental Concern	Price Sensitivity	Trust in Certification
"Organic is healthier"	0.81	–	–	–
"Prevents long-term diseases"	0.79	–	–	–
"Helps environment"	–	0.83	–	–
"Supports sustainable farming"	–	0.76	–	–
"Too expensive for me"	–	–	0.82	–
"Not worth higher price"	–	–	0.79	–
"I trust certified organic labels"	–	–	–	0.85

Interpretation:
The factor analysis identified four clear dimensions: health consciousness, environmental concern, price sensitivity, and trust in certification. Health and environmental concerns positively influence organic consumption, while price sensitivity acts as a barrier. Trust in certification indicates that credibility of labels strongly shapes consumer willingness. Together, these factors explain 71% of total variance in attitudes, indicating robust constructs.

Logistic Regression

Table 4: Logistic Regression Predicting Regular Organic Purchase

Predictor	B	SE	OR	p-value
Health Consciousness	0.48	0.16	1.62	0.003
Perceived Availability	0.39	0.19	1.47	0.032
Price Sensitivity	-0.33	0.14	0.72	0.021
Education (years)	0.27	0.11	1.31	0.014
Income (₹ in 10k)	0.19	0.09	1.21	0.038
Gender (Female=1)	-0.08	0.13	0.92	0.520
Age	0.02	0.01	1.02	0.087

Nagelkerke $R^2 = 0.36$; Model $\chi^2 = 32.7$, $p < 0.001$.

Interpretation:
Health consciousness and product availability significantly increased the odds of regular organic purchases, while price sensitivity reduced the likelihood. Education and income were also positive predictors. Gender and age were not significant predictors, indicating that organic consumption is more influenced by socio-economic and attitudinal factors rather than basic demographics.

Oaxaca–Blinder Decomposition

Table 5: Decomposition of Rural–Urban Gap in Purchase Frequency

Component	% Contribution
Income Differences	28%
Education Level	21%
Product Availability	14%
Attitude Translation (Structural)	37%

Interpretation:
The Oaxaca–Blinder decomposition showed that 63% of the rural–urban gap in organic product purchase frequency was explained by measurable factors like income, education, and availability. However, 37% remained structural, meaning deeper attitudinal and cultural differences play a role in shaping consumer behavior beyond observable socio-economic variables.

Discussion and Implications

The present study provides valuable insights into the comparative consumption of organic products among rural and urban consumers in Rajasthan. The findings confirm that urban consumers exhibit higher purchase frequency and expenditure on organic products, primarily due to their greater disposable income, higher educational attainment, and easier access to certified organic outlets. These results are consistent with earlier studies (e.g., Suki, 2016; Rana & Paul, 2020), which emphasize that affordability and market accessibility are key determinants of organic food consumption in emerging economies.

Interestingly, the factor analysis revealed that health consciousness and environmental concern strongly influenced both rural and urban respondents. This aligns with prior global research highlighting that consumer shifts toward organic products are often motivated by long-term health benefits and sustainability considerations (Magnusson et al., 2003; Hughner et al., 2007). However, price sensitivity emerged as a critical barrier, particularly in rural areas. This reinforces findings by Yadav & Pathak (2016), who noted that higher organic prices often discourage adoption in lower-income segments.

The logistic regression results indicate that health consciousness, perceived availability, education, and income significantly increased the likelihood of regular organic purchases, while price sensitivity negatively influenced purchase behavior. These findings extend prior work by demonstrating that availability and trust in certification act as key enabling factors, bridging the intention–behavior gap often observed in consumer studies. The lack of significance for gender and age suggests that organic consumption in Rajasthan is shaped more by socio-economic and attitudinal dimensions rather than by basic demographics, which contrasts with some Western studies that identify gender (especially female consumers) as stronger predictors (Lea & Worsley, 2005).

The Oaxaca–Blinder decomposition highlights that nearly two-thirds of the rural–urban consumption gap can be explained by observable differences in income, education, and access, while one-third remains structural. This suggests that beyond economics, cultural values, lifestyle differences, and attitudinal orientations shape organic consumption patterns. Rural consumers may remain cautious not only due to price but also because of lower exposure to organic awareness campaigns, limited social reinforcement, and weaker institutional trust in certification systems.

Practical Implications

1. **Policy Level:** Government and local institutions should enhance awareness campaigns in rural areas, focusing on health and sustainability benefits of organic products, while also subsidizing certification processes to reduce end-user costs.
2. **Business/Marketing Level:** Retailers and marketers should expand distribution networks to rural markets, offering smaller pack sizes and affordable price points to attract price-sensitive consumers. Urban markets, by contrast, may respond better to premium branding and certification trust marks.
3. **Consumer Education:** Both rural and urban consumers can benefit from targeted educational programs on distinguishing authentic organic products, thereby increasing trust in certification and reducing skepticism.
4. **Sustainability:** Encouraging both consumer groups to embrace organic farming products not only supports local farmers but also promotes environmental protection and long-term food security.

Theoretical Contribution

This study enriches the body of literature on consumer behavior by showing how socio-economic structures (income, education, access) interact with attitudinal factors (health consciousness, trust in certification) to shape organic consumption in an emerging market. The mixed-method statistical approach, combining factor analysis, logistic regression, and Oaxaca–Blinder decomposition, provides a nuanced framework for future comparative consumer studies.

Conclusion

This study demonstrates that significant differences exist in the consumption of organic products between rural and urban consumers in Rajasthan. Urban consumers exhibit higher awareness, more frequent purchases, and greater expenditure on organic products, driven largely by higher income, better access, and stronger health and environmental consciousness. Rural consumers, while showing interest, face barriers of affordability, limited availability, and greater price sensitivity, which restrict wider adoption. The results further highlight that a substantial share of the rural–urban gap is explained by socio-economic factors such as education, income, and access to markets, while attitudinal differences also play an important role. These findings suggest that to promote organic consumption across both segments, interventions must focus on expanding distribution channels in rural areas, enhancing affordability through policy or cooperative models, and intensifying awareness campaigns that emphasize the health and environmental benefits of organic products. By addressing both structural and perceptual barriers, stakeholders can foster more inclusive and sustainable growth of the organic sector in Rajasthan.

References

Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: A review. *British Food Journal, 111*(10), 1140–1167. https://doi.org/10.1108/00070700910992961

Chatterjee, S., & Ghosh, S. (2020). Consumer perception and preferences towards organic food products: A study in India. *Journal of Retailing and Consumer Services, 54,* 102035. https://doi.org/10.1016/j.jretconser.2019.102035

Gracia, A., & de Magistris, T. (2008). The demand for organic foods in the South of Italy: A discrete choice model. *Food Policy, 33*(5), 386–396. https://doi.org/10.1016/j.foodpol.2007.12.002

Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour, 6*(2–3), 94–110. https://doi.org/10.1002/cb.210

Janssen, M. (2018). Determinants of organic food purchases: Evidence from household panel data. *Food Quality and Preference, 68,* 19–28. https://doi.org/10.1016/j.foodqual.2018.02.002

Kushwah, S., Dhir, A., & Sagar, M. (2019). Understanding consumer resistance to the consumption of organic food. *Food Quality and Preference, 77,* 1–14. https://doi.org/10.1016/j.foodqual.2019.04.003

Lockie, S., Lyons, K., Lawrence, G., & Mummery, K. (2002). Eating 'green': Motivations behind organic food consumption in Australia. *Sociologia Ruralis, 42*(1), 23–40. https://doi.org/10.1111/1467-9523.00200

Magnusson, M. K., Arvola, A., Hursti, U. K. K., Åberg, L., & Sjödén, P. O. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. *Appetite, 40*(2), 109–117. https://doi.org/10.1016/S0195-6663(03)00002-3

Mondelaers, K., Verbeke, W., & Van Huylenbroeck, G. (2009). Importance of health and environment as quality traits in the buying decision of organic products. *British Food Journal, 111*(10), 1120–1139. https://doi.org/10.1108/00070700910992952

Nguyen, T. T. L., Nguyen, T. T., & Le, H. T. (2019). Factors influencing consumer purchase intention towards organic food: A cross-cultural study. *Sustainability, 11*(18), 4985. https://doi.org/10.3390/su11184985

Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services, 19*(5), 407–420. https://doi.org/10.1016/j.jretconser.2012.06.004

Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and future research agenda. *International Journal of Consumer Studies, 41*(6), 573–581. https://doi.org/10.1111/ijcs.12343

Rezai, G., Teng, P. K., Mohamed, Z., & Shamsudin, M. N. (2013). Going organic: Motivations and challenges of young consumers in Malaysia. *International Food Research Journal, 20*(1), 93–100.

Sangkumchaliang, P., & Huang, W. C. (2012). Consumers' perceptions and attitudes of organic food products in Northern Thailand. *International Food and Agribusiness Management Review, 15*(1), 87–102.

Schleenbecker, R., & Hamm, U. (2013). Consumers' perception of organic product characteristics: A review. *Appetite, 71,* 420–429. https://doi.org/10.1016/j.appet.2013.08.020

Shafie, F. A., & Rennie, D. (2012). Consumer perceptions towards organic food. *Procedia - Social and Behavioral Sciences, 49,* 360–367. https://doi.org/10.1016/j.sbspro.2012.07.034

Singh, A., & Verma, P. (2017). Factors influencing Indian consumers' actual buying behavior towards organic food products. *Journal of Cleaner Production, 167,* 473–483. https://doi.org/10.1016/j.jclepro.2017.08.106

Thøgersen, J. (2017). Sustainable food consumption in the nexus between national context and private lifestyle: A multi-level study. *Food Quality and Preference, 55,* 16–25. https://doi.org/10.1016/j.foodqual.2016.08.002

Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production, 135,* 732–739. https://doi.org/10.1016/j.jclepro.2016.06.120

Zanoli, R., & Naspetti, S. (2002). Consumer motivations in the purchase of organic food: A means–end approach. *British Food Journal, 104*(8), 643–653. https://doi.org/10.1108/00070700210425930