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CONSUMERS' BUYING BEHAVIOUR TOWARDS ORGANIC FOODS IN RETAIL OUTLETS OF ANANTHAPURAMU CITY, ANDHRA PRADESH

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ABSTRACT

This study explores consumer buying behaviour towards organic foods in Ananthapuramu city, Andhra Pradesh, based on a survey of 150 respondents across five retail outlets. The study aimed to assess awareness, preferences, willingness to pay, price acceptance and the influence of demographic variables. The majority of consumers were aged 21-35 years, held undergraduate degrees and earned ₹25,001-₹50,000 monthly. Grains followed by millets, vegetables, fruits and pulses were the most preferred organic categories, while meat, eggs and baby foods were least preferred. Nearly half the respondents were willing to pay a premium, mainly up to 20 per cent, with most allocating 11-30 per cent of their monthly food budget to organic products. Factor analysis revealed ten key behavioural influences such as health and safety, environmental and ethics, reference group, awareness, affordability and availability, convenience, credibility, brand and promotional, palatability and visual appeal explaining 73.81 per cent of total variance. Age and income significantly influenced several behavioural factors. The study highlights the need for affordable pricing, trust-building and awareness campaigns to strengthen organic food adoption in Tier-II cities.

KEYWORDS: Organic food, Consumer behaviour, Factor analysis, Price acceptance, Willingness to pay.

INTRODUCTION

India's agricultural sector is witnessing a shift as health concerns, environmental degradation, and food safety issues drive consumer interest toward organic products. Organic farming, which avoids synthetic inputs and promotes sustainable practices like composting and crop rotation, offers a viable solution. Globally, the organic food market crossed USD 350 billion by 2025, with India emerging as a leader in certified organic production (FiBL and IFOAM, 2025).

Urban centers like Ananthapuramu are seeing growing demand for organic foods, driven by rising awareness and income. Yet, challenges such as limited awareness, price sensitivity, and certification trust continue to impact consumer adoption. This study examines consumer awareness, preferences, willingness to pay for organic foods, factors influencing the buying behaviour and chi-square test was adopted to explore the association of identified factors with demographic variables.

MATERIAL AND METHODS

The study was conducted in Ananthapuramu city, Andhra Pradesh, using an ex-post facto research design. A total of 150 organic food consumers were selected through judgmental sampling from five purposively chosen retail outlets. Statistical tools used include descriptive statistics, Garrett's Ranking, Chi-square test, Cross-tabulation and Factor analysis. Data were collected using structured interviews and google forms covering demographics, willingness to pay and price acceptance. Consumer price acceptance was measured using Likert scale statements and categorized into 3 based on mean and standard deviation. Factor analysis with PCA and varimax rotation was applied to identify key behavioural dimensions. The suitability of data was confirmed using KMO and Bartlett's tests. Chi-square tests were used to examine the association between demographic variables and the identified factors.

RESULTS AND DISCUSSIONS

I.Socio-Economic Profile of The Consumers

Table 1 shows that out of 150 respondents, more than half (54.0%) were male and 46.0 per cent were female. A majority (52.0%) were aged 21-35 years; these results are in line with findings of Kataria *et al*. (2019) and Magesh and Rajeswari (2024). With regard

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to education most of the respondents (56.0%) studied undergraduate or higher. In terms of income 39.3 per cent of them earned ₹25,001-₹50,000 and 28.0 per cent earned ₹50,001-₹1,00,000. Regarding marital status, 52.7 per cent of them were married. The largest occupational group was private employees with 27.3 per cent followed by business/self-employed (18.0%), students (16.7%) & homemakers (16.0%). Over 54.0 per cent of them belonged to households with 4-6 members. These findings suggest that organic food consumption is driven by a younger, educated and economically stable population whose awareness, digital access and health consciousness contribute to their willingness to pay a premium & accept existing price levels for organic food.

II.Consumer Awareness and Buying Behaviour Towards Organic Foods

Table 2 indicates that the total number of the sample respondents was 150. Among them 68.7 per cent had been aware of organic foods for over three years, while only 4.0 per cent had recent awareness, indicating limited new consumer reach. Social media was the leading source of awareness (30.7%), followed by in-store promotions (22.0%) and friends/family (16.0%). Awareness of organic certifications remained low, with 46.0 per cent showing limited understanding. With regard to frequency of purchase, nearly half (49.3%) of the respondents had quarterly purchase and 22.0 per cent had monthly followed by fortnightly (18.0%), occasionally (6.0%) and weekly (4.7%).

Organic outlets (44.0%) and supermarkets (29.3%) were the main places of purchase, while in-person buying (57.3%) remained the preferred mode. Long-term users (over 3 years) accounted for 38.7 per cent, showing stable loyalty, with only 16.0 per cent being recent adopters. Regarding brand consideration, less than half (41.3%) considered brand as important, 37.3 per cent did not felt. However, 21.3 per cent were neutral, which reflects mixed preferences between brand trust and other attributes like price or origin.

Table 3 indicates that grains (mean score: 74.05), millets/instant foods (73.48) and vegetables (69.74) were the most preferred organic categories, while baby foods (23.87%), meat (36.81%) and eggs (36.77%) were least preferred, this preference pattern in the current study is also supported by Tanishka and Thangavel (2021).

III.Consumers' Willingness to Pay and Price Acceptance of Current Retail Prices

3.1.Consumers' willingness to pay, extent of premium and expenditure share on organic foods

Table 4 outlines respondents' willingness to pay a premium, the extent of that premium and their monthly expenditure on organic foods. About 48 per cent of the respondents were willing to pay more and 30 per cent were uncertain followed by 22 per cent were unwilling, these results indicating a cautiously receptive attitude towards premium pricing. Among these, 27.3 per cent preferred an 11-20 per cent premium and 23.3 per cent accepted up to 10 per cent, suggesting greater tolerance for modest price hikes. Only a smaller segment (14.7% and 12.7%) was open to premiums above 20 per cent.

Regarding expenditure 42 per cent allocated 21-30 per cent of their monthly food budget to organic foods next by 28.7 per cent respondents allocating 11-20 per cent. Less than one tenth of the respondents reported spending more than 30 per cent, reflecting that while organic foods are increasingly mainstream, affordability still shapes spending patterns. These findings align with Tanishka and Thangavel (2021).

3.2 Consumers' Acceptance of Current Prices for Organic Food Products

Table 5 presents the level of consumer acceptance toward the current pricing of organic food products, categorized across four key statements. Responses were grouped into low, moderate and high acceptance levels to assess varying degrees of consumer sentiment regarding pricing flexibility, continued purchasing and price-related preferences.

The analysis revealed that over half of the respondents (52.7%) moderately accepted current market prices, while 30.0 per cent expressed high acceptance, reflecting a generally balanced outlook. When asked about continued purchasing despite slight price increases, majority (66.7%) showed moderate acceptance and (20.7%) high acceptance, indicating resilience towards minor price fluctuations. However, 32.0 per cent of consumers strongly agreed that high prices discourage regular buying, with nearly half (47.3%) showing a moderate response highlighting price as a potential barrier. Notably, 52.0 per cent moderately agreed and 31.3 per cent strongly agreed that they

Table 1. Socio-economic profile of the consumers

S. No.	PARTICULARS	Frequency	Percentage (%)
	SEX		
1.	Male	81	**54.0**
2.	Female	69	46.0
	AGE GROUP		
1.	Below 20 years	16	10.7
2.	21- 35 years	78	**52.0**
3.	36 – 50 years	41	27.3
4.	More than 50 years	15	10.0
	EDUCATIONAL STATUS		
1.	No formal education	9	6.0
2.	Up to 10th standard	23	15.3
3.	Intermediate	34	22.7
4.	Undergraduate and above	84	**56.0**
	MONTHLY INCOME LEVEL		
1.	< Rs.25,000	30	20.0
2.	Rs.25,001 - Rs.50,000	59	**39.3**
3.	Rs.50,001 - Rs.1,00,000	42	28.0
4.	> ₹1,00,000	19	12.7
	MARITAL PROFILE		
1.	Unmarried	71	47.3
2.	Married	79	**52.7**
	OCCUPATION		
1.	Student	25	16.7
2.	Private Employee	41	**27.3**
3.	Government Employee	23	15.3
4.	Business	27	18.0
5.	Homemaker	24	16.0
6.	Others	10	6.7
	HOUSEHOLD SIZE		
1.	1 - 3 Members	35	23.3
2.	4 - 6 Members	81	**54.0**
3.	More than 6 Members	34	22.7

Table 2. Consumer awareness and buying behaviour towards organic foods (n=150)

S. No.	Parameter	Category	Frequency	Percentage (%)
1.	Duration of Awareness	Less than 1 year	6	4.0
		1 – 2 years	14	9.3
		3 years	27	18.0
		More than 3 years	94	68.7
2.	Source of Awareness	Friends / Family	24	16.0
		Television	19	12.7
		Social media / Online platforms	46	30.7
		In-store promotions / Retail displays	33	22.0
		Newspapers and Magazines	17	11.3
		Others	11	7.3
3.	Awareness on Organic Certifications	Low	69	46.0
		Moderate	50	34.7
		High	31	19.3
4.	Purchase Frequency	Weekly	7	4.7
		Fortnightly	27	18.0
		Monthly	33	22.0
		Quarterly	74	49.3
		Occasionally	9	6.0
5.	Preferred Place of Purchase	Organic Outlets	66	44.0
		Supermarkets	44	29.3
		Online Stores	19	12.7
		Direct from Farmers	21	14.0
6.	Mode of Purchase	Buying In-Person	86	57.3
		Online Purchase	25	16.7
		Phone / WhatsApp Orders	21	14.0
		Home Delivery Subscription	7	4.7
		Directly from Farms	11	7.3
7.	Duration of Consumption	Less than 1 year	24	16.0
		1 – 2 years	29	19.3
		3 years	36	26.0
		More than 3 years	61	38.7
8.	Brand Consideration	Yes	62	41.4
		No	56	37.3
		May or May Not	32	21.3

Table 3. Most preferred categories of organic foods among the sample respondents (n = 150)

S. No.	Organic Food Categories	Total	Mean score	Rank
1	Millet-Based & Instant Foods (Dosa mixes, upma mixes, khichdi, etc.)	11022	73.48	II
2.	Fruits	10357	69.05	IV
3.	Pulses	9884	65.89	V
4.	Grains (Cereals, Millets – Rice, Ragi, Jowar, Bajra, etc.)	11108	**74.05**	**I**
5.	Vegetables	10461	69.74	III
6.	Dairy (Milk, Curd, Paneer, Ghee, etc.)	9480	63.20	VI
7.	Organic Sweeteners and desserts	6795	45.30	XI
8.	Packaged Organic Snacks / Beverages (Cookies, Health Drinks, Energy Bars, etc.)	7152	47.68	IX
9.	Spices & Condiments (Turmeric, Chili Powder, Coriander, etc.)	6584	43.89	XIII
10.	Cooking oils	8702	58.01	VII
11.	Organic Pickles / Chutneys	6699	44.66	XII
12.	Mushroom	6061	40.41	XIV
13.	Dry Fruits & Nuts (Cashews, Almonds, Raisins, etc.)	7595	50.63	VIII
14.	Honey	6924	46.16	X
15.	Meat	5521	36.81	XV
16.	Eggs	5515	36.77	XVI
17.	Organic Baby foods	3581	23.87	XVII
18.	Others	2759	18.39	XVIII

Table 4. Consumers' willingness to pay, extent of premium and expenditure share on organic foods (n=150)

S. No.	Category	Frequency	Percentage (%)
	A. Willingness to Pay Premium		
1.	Willing to pay	72	**48.0**
2.	Not willing to pay	33	22.0
3.	Uncertain	45	30.0
	B. Extent of Price Premium Willing to Pay		
1.	Up to 10%	35	23.3
2.	11-20%	41	**27.3**
3.	21-30%	22	14.7
4.	More than 30%	19	12.7
5.	Unwilling to pay extra	33	22.0
	C. Monthly Expenditure Share on Organic Foods		
1.	Less than 10%	30	20.0
2.	11-20%	43	28.7
3.	21-30%	63	**42.0**
4.	31-40%	9	6.0
5.	More than 40%	5	3.3

Table 5. Consumers acceptance of current prices for organic foods (n = 150)

S. No.	Statement	Low Acceptance Level	Moderate Acceptance Level	High Acceptance Level
1.	I accept current market prices	26 (17.3%)	79 (52.7%)	45 (30.0%)
2.	I will continue buying even if prices increase slightly	19 (12.6%)	100 (66.7%)	31 (20.7%)
3.	High prices discourage regular buying	31 (20.7%)	71 (47.3%)	48 (32.0%)
4.	I prefer them if priced closer to regular ones	25 (16.7%)	78 (52.0%)	47 (31.3%)

Table 6. KMO and Bartlett's Test of Sphericity

Test	Value
Kaiser-Meyer-Olkin (KMO)	0.746
Bartlett's test of sphericity – χ^2	3382.5
Degrees of freedom (df)	561
Significance level (p-value)	0.000

Table 7. Total Variance Explained by Extracted Factors

Component	Eigenvalue	% of Variance	Cumulative %
1.	7.289	21.44%	21.44%
2.	5.233	15.39%	36.83%
3.	2.629	7.73%	44.56%
4.	2.154	6.33%	50.90%
5.	1.747	5.14%	56.04%
6.	1.376	4.05%	60.08%
7.	1.301	3.83%	63.91%
8.	1.231	3.62%	67.53%
9.	1.118	3.29%	70.82%
10.	1.018	2.99%	73.81%

would prefer organic products if priced closer to regular items, emphasizing the role of comparative pricing in influencing consumer decisions.

The results align with Aryal *et al*. (2009) and Nandi *et al*. (2016) who found consumers were willing to pay extra for organic products, mainly driven by health and quality concerns.

IV.FACTORS INFLUENCING CONSUMERS' BUYING BEHAVIOUR TOWARDS ORGANIC FOODS

4.1.KMO and Bartlett's Test of Sphericity

The adequacy of data for factor analysis was verified using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO value was 0.746, indicating sampling adequacy. Bartlett's Test of Sphericity was significant ($\chi^2 = 3382.5$, df = 561, $p < 0.000$), supporting the suitability of the data for factor analysis.

4.2 Factor Extraction and Variance Explained

Principal Component Analysis (PCA) was used to extract the key dimensions influencing consumer behaviour. Ten factors were retained based on eigen values greater than one, collectively explaining 73.81% of the total variance. The first three components alone accounted for 21.44%, 15.39% and 7.73% respectively, suggesting a strong data structure.

4.3 SCREE PLOT

The scree plot illustrates the eigenvalue distribution for the 34 components, with a distinct elbow at the 10th component. This supports the retention of ten factors, aligning with Kaiser's criterion (eigenvalues >1) and the cumulative variance of 73.81 per cent. Beyond this point, additional components contribute minimally.

4.4 .Factor Interpretation and Naming:

Based on the rotated component matrix using Varimax rotation, 10 significant factors were identified. Each factor consists of items with high loadings ($\geq \pm 0.4$), grouped & named in the following Table 8.

Factor analysis revealed that consumer buying behaviour towards organic food products is influenced by a diverse set of factors. Health and safety, environmental and ethics, affordability and availability, reference group, awareness, convenience factor and credibility factor attributes emerged as dominant influencers. This multi-dimensional insight can help retailers and marketers tailor their strategies to address specific consumer motivators more effectively. The findings align with Basha *et al*. (2015) and Sivathanu (2015), who reported that health, environment, awareness and convenience strongly influenced organic food choices supporting the top-ranked factors in the present study.

V.Association Between Demographic Variables and Behavioural Factors

Chi-square tests were conducted to examine the association between demographic characteristics (age and income) and the extracted behavioural factors. Significance levels were tested at 1%, 5% and 10%.

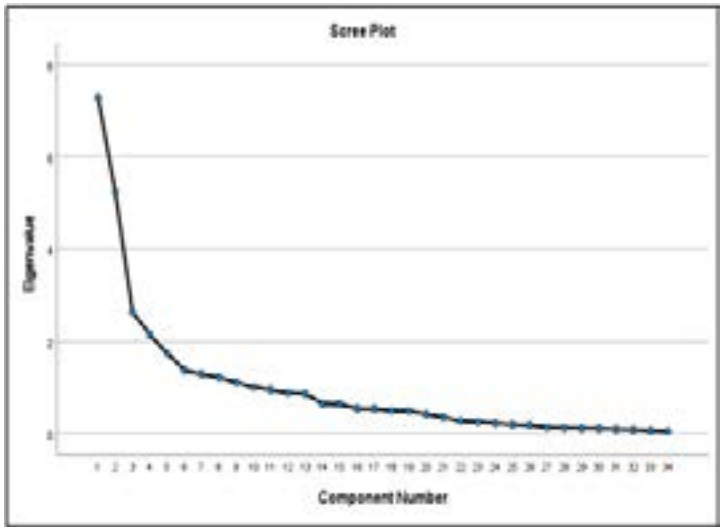

Figure 1: Scree Plot of Principal Component Analysis

Table 8. Summary of Factors Extracted from Factor Analysis

Factor No.	Factor Name	Significantly Loading Variables	Interpretation
1.	Health and Safety	Organic food is healthier (0.837) Free from harmful chemicals (0.762) Food safety concerns (0.580) For children health (0.557) High fibre/carb (0.571) Chemical risks awareness (0.719) Natural ingredients (0.702)	Indicates strong preference for health benefits as a primary motivation for organic food purchase.
2.	Environmental & Ethics	Environmental reasons (0.799) Supporting local farmers (0.779) Biodegradable packaging (0.533) Personal values (0.503)	Driven by eco-consciousness and social responsibility.
3.	Affordability & Availability	Reasonable price (0.683), Discounts (0.634) Affordability (0.657) Availability (0.574)	Price and cost-related factors impact organic purchase decisions.
4.	Credibility	Certification on pack (0.598) FSSAI check (0.810) Trust in certified products (0.689) Nutrition info (0.411)	Consumers value official labeling and safety assurances.
5.	Reference Group	Family encouragement (0.853) Doctor recommendation (0.473) Peer recommendation (0.621)	Decisions influenced by personal networks and healthcare advice.
6.	Convenience	Easy and fast cooking (0.912) Pre-packed format (0.538) Shelf-life (0.801)	Convenience and usability motivate purchases.
7.	Awareness	Attended awareness program (0.565) Influencer/Ad following (0.449) COVID-19 awareness (0.714)	Marketing and information exposure affect buying behaviour.
8.	Visual appeal	Smell, taste, texture (0.719) Packaging (0.692)	Aesthetic and sensory attributes influence consumer choices.
9.	Brand Influence	Brand matters (0.741) Celebrity endorsements (0.471)	Brand image and celebrity ties shape preferences.
10.	Palatability	Taste (0.467)	Taste remains a subtle yet stand-alone influence.

Table 9. Association with Age

Factor	Chi-square	p-value
Affordability and Availability	21.12	0.001***
Brand and Promotional	17.434	0.008**
Reference Group	15.167	0.019**
Health and Safety	14.16	0.028**
Convenience	13.038	0.043**
Awareness	11.424	0.076*
Credibility	11.88	0.064*
Environmental and Ethics	11.69	0.069*
Visual Appeal	5.668	0.461
Palatability	7.828	0.251

Table 10. Association with Income

Factor	Chi-square	p-value
Affordability and Availability	22.315	0.001***
Health and Safety	13.249	0.039**
Convenience	13.074	0.041**
Credibility	10.723	0.097*
Visual Appeal	11.64	0.071*
Awareness	6.264	0.282
Reference Group	9.212	0.162
Brand and Promotional	2.943	0.816
Environmental and Ethics	1.383	0.967
Palatability	1.969	0.923

INTERPRETATION

Chi-square analysis showed that, from Table 9 it indicates that age significantly influenced five factors, notably affordability, brand and promotion, reference group, health and safety and convenience. Marginal influence was observed for awareness, credibility and environmental ethics, while visual appeal and palatability showed no significant variation with age.

From Table 10 it indicates that income significantly affected affordability, health & safety and convenience, with moderate influence on credibility and visual appeal. other factors such as awareness, brand and promotional, reference group, palatability and ethical concerns were found to be non-significant with income.

The study highlights that organic food consumption in Ananthapuramu city is primarily driven by a younger, educated and economically active population with growing awareness of health and sustainability. Grains, millets, vegetables and fruits were the most preferred categories and nearly half of the respondents expressed a willingness to pay a premium, though mostly within a modest range of 10-20 per cent. Despite moderate to high acceptance of current prices, affordability remains a barrier, especially for frequent consumption. Factor analysis revealed ten significant behavioural dimensions, including health and safety, environmental & ethics, affordability & availability, credibility, brand and promotion, palatability, visual appeal, reference group, awareness and convenience explaining 73.81 per cent of the total variance. The chi-square analysis further established that demographic factors such as age and income significantly influence several of these behavioural aspects.

To expand the organic food market in Tier-II cities like Ananthapuramu, it is crucial to implement targeted pricing strategies, improve consumer trust through transparent certification and enhance awareness campaigns. These insights can guide policymakers, retailers and marketers in developing more inclusive and effective strategies for promoting organic food consumption at the grassroots urban level.

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