



Consumer Behaviour and Buying Pattern Towards Organic Products: A study in selected Districts of Arunachal Pradesh

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ABSTRACT

An growth in interest in organic products is a result of the expanding global emphasis on environmental sustainability, health, and the consumption of safe food. This study examines the purchasing habits and consumer behavior of consumers in a few districts of Arunachal Pradesh, an area with a high degree of agricultural diversity and potential for organic farming. Assessing consumer awareness and understanding of organic products, determining the major factors influencing their purchasing decisions, and investigating consumer views of the products' quality, safety, and value are the objectives of the study. In order to gather data, a representative sample of consumers from a range of socioeconomic backgrounds were given structured questionnaires. The findings reveal varying degrees of awareness, with education, and access to information playing significant roles. Health consciousness, environmental concerns, and product availability emerged as major influencing factors in purchase behaviour. Additionally, consumers generally perceived organic products as safer and of higher quality, though concerns about pricing and authenticity remain. The study provides valuable insights for policymakers, marketers, and producers to better align organic product promotion with consumer expectations and to support the development of a sustainable organic market in the region (Jingdam & Sanyal, 2024).



1 Introduction:

The growing global awareness surrounding environmental sustainability, food safety, and health consciousness has significantly reshaped consumer preferences, especially in the domain of food consumption. In particular, organic products—cultivated without synthetic fertilizers, pesticides, or genetically modified organisms—are increasingly viewed as healthier and safer alternatives to conventionally produced food (Sharma & Singhvi, 2018; Khattab et al., 2020). This rising demand for organic products reflects a broader societal trend towards more sustainable consumption practices and ethical food sourcing (Oroian et al., 2017).

India, with its diverse agro-ecological zones and traditional farming practices, holds substantial potential to lead the organic revolution. However, consumer adoption of organic products remains uneven across regions due to differences in awareness, accessibility, and economic factors (Abdin, n.d.; Chandrashekar, 2014). In northeastern states like Arunachal Pradesh—home to indigenous knowledge systems and a predominantly agrarian economy—the adoption of organic products is especially pertinent. Yet, empirical research into consumer behaviour and buying patterns in this region is sparse.

This study focuses on selected districts of Arunachal Pradesh to examine the consumer awareness level and knowledge about organic products, explore their perceptions regarding safety, quality, and health benefits, and identify key factors influencing their purchase decisions. Previous studies have shown that health concerns, environmental motivations, and socio-demographic variables such as education and income significantly impact organic food choices (Hasan & Suciarto, 2020; Krishna & Balasubramanian, 2018). However, contextual variations demand region-specific investigations to inform targeted strategies for promoting organic consumption.

The findings of the study are expected to be beneficial for policymakers, marketers, and producers, which may be an effective awareness campaigns, market strategies, and supply chain mechanisms that align with local consumer needs and values. Ultimately, fostering an informed and motivated consumer base is essential for strengthening the organic market ecosystem and advancing sustainable agricultural practices in Arunachal Pradesh and similar regions.

1.2. Objectives of the Study

1. To evaluate consumers' awareness and knowledge of organic products in a few Arunachal Pradesh districts.



2. To determine the main elements influencing consumers' decisions to buy organic products.
3. To investigate how consumers see the worth, safety, and quality of organic products.

1.3. Hypothesis:

1. There is no significant difference in awareness of organic products according to the education of the respondents.
2. There is significant difference in awareness of organic products according to the education of the respondents in at least one pair.

1.4. Research Methodology:

i. Research Design

The present study employs a combination of exploratory and descriptive research designs to achieve its stated objectives. The exploratory design aids in gaining preliminary insights into consumer attitudes, motivations, and concerns regarding organic products. The descriptive design facilitates a structured and statistical analysis of consumer behavior, level of awareness, and purchase patterns in selected districts of Arunachal Pradesh.

ii. Sources of Information

Primary Data: The primary data for the study were collected through a structured questionnaire designed to gather quantitative data from consumers. The questionnaire included both close-ended and Likert-scale questions and was administered through direct interaction with respondents in the selected districts.

Secondary Data: Secondary data were obtained from reputed sources including research journals, academic articles, newspapers, government reports, and publications from organizations related to agriculture, health, and consumer behavior. These sources helped in framing the questionnaire and understanding the broader context of organic consumption.

iii. Sampling Method: The study used the simple random sampling method to ensure each consumer in the selected districts had an equal probability of being included in the sample. This method minimized sampling bias and enhanced the generalizability of the findings within the selected regions.

iv. Sample Size Determination: The sample size was determined using Cochran's formula for an unknown (infinite) population, which is appropriate when the exact population size is not known. Based on this calculation, a sample size of **384** respondents was finalized.



v. **Data Collection Method:** The primary data gathered through structured questionnaire comprising five key sections:

- Demographic profile of respondents
- Awareness and knowledge of organic products
- Buying patterns and frequency of organic purchases
- Key determinants of buying behaviour, such as health, environmental considerations and cost, were examined.
- Perceptions of quality, safety, and value of organic products

vi. **Data Analysis Techniques:** The collected data were entered, cleaned, and analyzed using Microsoft Excel and SPSS. The following techniques were used: Descriptive statistics (frequency, mean, and percentage, ANOVA) to summarize data.

vii. **Geographical Scope:** The study was conducted in selected districts of Arunachal Pradesh, i.e. Longding and Lower Subansiri Districts identified based on accessibility, demographic diversity, and the presence of organic product markets.

vii. **Research Limitation:**

- Since the research was limited to selected districts, its findings may not be applicable to the broader state context.
- The use of self-reported questionnaires may introduce response bias.
- Accessibility to remote areas posed logistical challenges in data collection.

1.5. DISCUSSION AND ANALYSIS:

i. Profile of the respondents:

Table 1. Age of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 30 years	221	57.6	57.6	57.6
	31 to 40 years	102	26.6	26.6	84.1
	40 years and above	61	15.9	15.9	100.0
	Total	384	100.0	100.0	

Source: Field Survey

The table above displays the demographic breakdown of the respondents who took part in the organic product survey. It details the age distribution among the 384 individuals analyzed. According to the data, most participants (57.6%) were aged between 18 and 30 years, while 26.6% were in the 31–40 age groups. The remaining 15.9% of respondents were aged 40 years and above.

Table 2. Gender distribution of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	216	56.3	56.3	56.3
	Female	168	43.8	43.8	100.0
	Total	384	100.0	100.0	

Source: Field Survey

The table above illustrates the gender breakdown of participants in the organic product survey, which includes a total of 384 respondents. Among them, 56.3% are male, whereas 43.8% are female.

Table 3. Education level of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post Graduate	70	18.2	18.2	18.2
	Graduate	143	37.2	37.2	55.5
	Professional	33	8.6	8.6	64.1
	Hr. Sec	86	22.4	22.4	86.5
	Matriculate	40	10.4	10.4	96.9
	Illiterate	12	3.1	3.1	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Out of the 384 participants, the majority of respondents had either a graduate (37.2%) or a higher secondary (22.4%) education level. Post-graduate level education was reported by 18.2% of the



respondents, while 8.6% reported having a professional degree. Matriculate education level was reported by 10.4% of the respondents, while only 3.1% reported being illiterate.

ii. Awareness about Organic Food Product: It is vital for farmers to be knowledgeable about organic products, as this knowledge enables them to implement environmentally sustainable farming practices that protect soil quality and biodiversity. By keeping up-to-date with information on organic products, farmers can respond to the rising demand for sustainable goods, unlocking new market opportunities and strengthening the resilience of the agricultural sector.

Table 4. I am aware of organic products

		Freque ncy	Perce nt	Valid Percent	Cumulati ve Percent
Valid	Strongly Agree	135	35.2	35.2	35.2
	Agree	183	47.7	47.7	82.8
	Neutral	43	11.2	11.2	94.0
	Disagree	23	6.0	6.0	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Among the 384 respondents, most indicated awareness of organic products, with 35.2% strongly agreeing and 47.7% agreeing.

Table 5. I purchase organic products because I am concerned for health

		Freque ncy	Perce nt	Valid Percent	Cumulati ve Percent
Valid	Strongly Agree	122	31.8	31.8	31.8
	Agree	187	48.7	48.7	80.5
	Neutral	45	11.7	11.7	92.2



Disagree	26	6.8	6.8	99.0
Strongly Disagree	4	1.0	1.0	100.0
Total	384	100.0	100.0	

Source: Field Survey

Most respondents reported buying organic products due to health concerns, with 31.8% strongly agreeing and 48.7% agreeing. Meanwhile, 11.7% remained neutral, and smaller shares of 6.8% and 1% disagreed and strongly disagreed, respectively.

Table 6. I purchase organic products because I am concern for environmental issues

		Frequen cy	Percen t	Valid Percent	Cumulative Percent
Valid	Strongly Agree	75	19.5	19.5	19.5
	Agree	138	35.9	35.9	55.5
	Neutral	81	21.1	21.1	76.6
	Disagree	74	19.3	19.3	95.8
	Strongly Disagree	16	4.2	4.2	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Out of 384 respondents, a smaller proportion of respondents purchased organic products because they were concerned for environmental issues compared to health concerns. Only 19.5% of respondents strongly agreed that they purchased organic products because of environmental concerns, while 35.9% agreed. A larger proportion of respondents (21.1%) were neutral towards the statement, while 19.3% disagreed and 4.2% strongly disagreed.



iii. Consumers' Perception of Organic Food Products Regarding Safety: Overall, consumers view organic food products positively when it comes to safety. They are considered safer since they are cultivated and processed without synthetic pesticides, herbicides, or genetically modified organisms.

Table 7. Organic products can reduce the risk of poisoning food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	132	34.4	34.4	34.4
	Agree	169	44.0	44.0	78.4
	Neutral	60	15.6	15.6	94.0
	Disagree	19	4.9	4.9	99.0
	Strongly Disagree	4	1.0	1.0	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Among the 384 respondents, 34.4% strongly agreed and 44.0% agreed that organic products help lower the risk of food poisoning. Meanwhile, 15.6% remained neutral, whereas 4.9% disagreed and 1.0% strongly disagreed with the statement.

iv. Statement: Consumers' Perception towards organic food products in regards to quality:

Table 8. Organic food products have superior quality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	141	36.7	36.7	36.7
	Agree	167	43.5	43.5	80.2

Neutral	44	11.5	11.5	91.7
Disagree	31	8.1	8.1	99.7
Strongly Disagree	1	.3	.3	100.0
Total	384	100.0	100.0	

Source: Field Survey

36.7% of respondents strongly agreed and 43.5% agreed that organic food products have superior quality. A smaller proportion of respondents (11.5%) were neutral on the statement, while 8.1% disagreed

v. Statement: Factors Driving towards Organic Food Consumption: The researcher has taken the opinion of the farmers on key factors driving towards organic food consumption.

Table 9. Education awareness influenced me regarding the consumption of organic product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	83	21.6	21.6	21.6
	Agree	159	41.4	41.4	63.0
	Neutral	16	4.2	4.2	67.2
	Disagree	96	25.0	25.0	92.2
	Strongly Disagree	30	7.8	7.8	100.0
	Total	384	100.0	100.0	

Source: Field Survey

21.6% of respondents strongly agreed and 41.4% agreed that education awareness influenced their decision to consume organic products. A smaller percentage of respondents (4.2%) expressed a neutral opinion, while 25.0% disagreed with the statement.

vi. Transition of Consumer Behaviour from Organic to Conventional Food Products.



Well, conventional food product means a product that are grown and processed by applying artificial chemical fertilizers such as herbicides, pesticides, insecticides etc. This is done in order to protect the crops from insects and diseases and also for the faster growth of the crops.

Over the past decade, there has been a notable transition in consumer behavior from organic to conventional food products. While organic food initially gained popularity due to perceived health benefits and environmental sustainability, several factors have contributed to this shift.

Table 10. I have started purchasing conventional product because it is easily available than organic product

		Frequen cy	Percen t	Valid Percent	Cumulativ e Percent
Valid	Strongly Agree	78	20.3	20.3	20.3
	Agree	211	54.9	54.9	75.3
	Neutral	19	4.9	4.9	80.2
	Disagree	63	16.4	16.4	96.6
	Strongly Disagree	13	3.4	3.4	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Out of 384 respondents, 20.3% of respondents strongly agreed and 54.9% agreed that they have started purchasing conventional products because they are easily available compared to organic products.

Table 11. I purchase conventional food products as I am not aware of the risk of consuming it.

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	47	12.2	12.2	12.2
	Agree	136	35.4	35.4	47.7



Neutral	25	6.5	6.5	54.2
Disagree	131	34.1	34.1	88.3
Strongly Disagree	45	11.7	11.7	100.0
Total	384	100.0	100.0	

Source: Field Survey

vii. Impact of Price on Consumers’ Decisions to Purchase Organic Products: Price plays an important role in shaping consumers’ choices regarding organic products. Since organic foods generally cost more than conventional alternatives, this price gap can significantly affect how consumers behave and make purchasing decisions.

Table 12. I am willing to buy organic product even at a higher rate

	Frequency	Valid Percent	Valid Percent	Cumulative Percent
Valid Strongly Agree	47	12.2	12.2	12.2
Agree	96	25.0	25.0	37.2
Neutral	110	28.6	28.6	65.9
Disagree	95	24.7	24.7	90.6
Strongly Disagree	36	9.4	9.5	100.0
Total	384	100.0	100.0	

Source: Field Survey

Among the 384 respondents, 12.2% strongly agreed and 25.0% agreed that they would purchase organic products even at higher prices. Meanwhile, 28.6% remained neutral, and 24.7% disagreed, with another 9.5% strongly disagreeing with the statement.



Table 13. It depends on the products

		Frequen cy	Percen t	Valid Percent	Cumulativ e Percent
Valid	Strongly Agree	103	26.8	26.8	26.8
	Agree	207	53.9	53.9	80.7
	Neutral	35	9.1	9.1	89.8
	Disagree	38	9.9	9.9	99.7
	Strongly Disagree	1	.3	.3	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Out of 384 respondents, 26.8% strongly agreed and 53.9% agreed that their choice to buy organic products varies depending on the specific product. Meanwhile, 9.1% were neutral, 9.9% disagreed, and only 0.3% strongly disagreed.

viii. Elements that boost future purchase of Organic products.

Several elements can boost future purchases of organic products for consumers. These elements are often interconnected and appeal to various aspects of consumer needs and values. Here are some key factors that can encourage individuals to buy organic products.

Table 14. Adequate promotion of its benefits & originality will make more awareness

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	192	50.0	50.0	50.0
	Agree	161	41.9	41.9	91.9



Neutral	26	6.8	6.8	98.7
Disagree	5	1.3	1.3	100.0
Total	384	100.0	100.0	

Source: Field Survey

Among 384 respondents, (50%) respondents strongly agree (41.9%) agree that adequate promotion of the benefits and originality of organic products will increase awareness. These findings suggest that promoting the benefits and originality of organic products can play a significant role in increasing awareness of these products.

Table 15. Verification of Trusted Organic labeling and certifications should be done properly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	223	58.1	58.1	58.1
	Agree	160	41.7	41.7	99.7
	Neutral	1	.3	.3	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Out of 384 respondents, a significant majority of respondents strongly agree (58.1%) or agree (41.7%) that proper verification of trusted organic labeling and certifications is necessary. Only a small percentage of respondents remain neutral (0.3%).

ix. Purchase Frequency of organic food products.

Table 16. Purchase Frequency of organic food products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	.5	.5	.5

Always	141	36.7	36.7	37.2
Never	2	.5	.5	37.8
Often	199	51.8	51.8	89.6
Rare	40	10.4	10.4	100.0
Total	384	100.0	100.0	

Source: Field Survey

Out of the 384 respondents, 141 (36.7%) stated that they always buy organic food products, while 199 (51.8%) said they often do so. Meanwhile, 40 respondents (10.4%) mentioned that they rarely purchase organic products.

x. Sources of purchase of organic products

Table 17. Sources of purchase of organic products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Any Market	178	46.4	46.4	46.4
	Direct from Producer	56	14.6	14.6	60.9
	Footpath	112	29.2	29.2	90.1
	Own Farmer	36	9.4	9.4	99.5
	Organic Market Only	2	.5	.5	100.0
	Total	384	100.0	100.0	

Source: Field Survey

Among 384 respondents, the sources of buying organic products varied among the respondents. The majority of respondents mentioned buying organic products from any market (46.4%) or directly from the producer (14.6%). A significant number of respondents also mentioned buying organic products from footpaths (29.2%) or their own farmer (9.4%). A small percentage of respondents (0.5%) mentioned purchasing organic products exclusively from organic markets.

Table: 18. Sources of Awareness about organic product

Sources	Yes	No	Total	Rank
Internet	158	190	384	First
Television	61	323	384	Fourth
News Paper	30	354	384	Sixth
Word of Mouth	109	275	384	Third
Friends	36	348	384	Fifth
Others	128	256	384	Second

Sources: Field Survey

Out of 384 respondents, multiple sources for acquiring knowledge about organic products were reported. The sources mentioned and their corresponding frequencies are as follows:

- Internet: 158 respondents indicated that they rely on the internet for information about organic products.
- Television: 61 respondents identified television as a source of information on organic products.
- Newspaper: 30 respondents reported using newspapers to acquire knowledge about organic products.
- Word of Mouth: 109 respondents reported learning about organic products through word of mouth.
- Friends: 36 respondents reported relying on their friends for knowledge about organic products.
- Others: 128 respondents mentioned other sources of information about organic products that were not specified in the data.

Table: 19. Organic Food Preferred for Consumption**Organic Frequencies**

Organic Food Preferred for Consumption	Yes	No	Total	Rank
Fruits	279	105	384	Second
Vegetables	344	40	384	First
Pulses and Cereals	135	249	384	
Tea	111	273	384	
Medicinal Products	108	276	384	

Source: Field Survey



Out of 384 respondents, respondents expressed their preference for consuming organic food in various categories. The categories mentioned and their corresponding frequencies are as follows:

- Fruits: 279 respondents reported a preference for consuming organic fruits.
- Vegetables: 344 respondents mentioned a preference for consuming organic vegetables.
- Pulses and Cereals: 135 respondents reported a preference for consuming organic pulses and cereals.
- Tea: 111 respondents mentioned a preference for consuming organic tea.
- Medicinal Products: 108 respondents reported a preference for consuming organic medicinal products.

xi. Hypothesis

H0: The level of awareness of organic products does not significantly differ based on the respondents' age.

H1: There is a significant difference in awareness of organic products between genders within at least one age group of the respondents.

Table: 20. There is no significant difference in awareness of organic products according to the age of the respondent Oneway

ANOVA

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Awareness of Organic Products	Based on Mean	.245	2	381	.783
	Based on Median	.197	2	381	.821
	Based on Median and with adjusted df	.197	2	378.347	.821
	Based on trimmed mean	.297	2	381	.743

Awareness of Organic Products



	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.605	2	1.303	4.294	.014
Within Groups	115.561	381	.303		
Total	118.167	383			

The results of the one-way ANOVA test show a significant difference in awareness of organic products among respondents from different age groups ($F(2, 381) = 4.294, p = .014$). This indicates that age has a notable effect on respondents' awareness of organic products.

Hypothesis:

Table: 21. There is no significant difference in awareness of organic products according to the education of the respondents.

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Awareness of Organic Products	Based on Mean	1.409	5	378	.220
	Based on Median	1.374	5	378	.233
	Based on Median and with adjusted df	1.374	5	365.740	.233
	Based on trimmed mean	1.504	5	378	.188

ANOVA

Awareness of Organic Products

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.299	5	2.060	7.218	.000



Within Groups	107.868	378	.285		
Total	118.167	383			

The hypothesis examined whether there were differences in awareness of organic products based on respondents' education levels. Tests of homogeneity of variances—using various measures such as the mean, median, median with adjusted degrees of freedom, and trimmed mean—showed no significant variance differences across education groups ($p > 0.05$). An ANOVA was then conducted to compare the mean awareness scores among these groups. The analysis showed that the between-groups sum of squares was 10.299, with 5 degrees of freedom and a mean square of 2.060. The resulting F-value was 7.218, which reached statistical significance at $p < 0.001$.

Despite this, the overall analysis found no meaningful differences in awareness of organic products by education level. Therefore, the null hypothesis (H_0) was not rejected, indicating that education level does not significantly influence awareness of organic products.

1.6. Conclusion:

In this chapter, the researcher analyzed the collected data and organized it into tables along with relevant interpretations. Percentage analysis was applied to describe the socio-economic characteristics of the sample of organic food consumers, helping to identify how many respondents fell into each category. To test the hypotheses formulated by the researcher, statistical methods such as frequency tests, ANOVA, and t-tests were employed. As a result, the study uncovered several relationships between variables, offering valuable insights into the topic.

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