

# An Analysis of the Variables Influencing Consumers' Purchasing Decisions for Organic Food Items in Rajkot

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**Abstract:** This study explores the key factors influencing consumer behavior in the organic food market of Rajkot City. Empirical research reveals that price is the most significant determinant across demographic groups, strongly influenced by age, education, occupation, and monthly income. Age and income moderately affect brand perception, suggesting its relevance for specific consumer segments. Taste plays a crucial role, particularly among different genders, and is slightly influenced by education, highlighting the importance of sensory appeal in purchase decisions. While health benefits, environmental concerns, and organic certifications show limited demographic influence, they remain universal motivators for organic food consumption. The study also identifies key barriers: gender influences perceptions of limited availability, while age and education significantly affect awareness levels. Additionally, education impacts perceptions of availability, and occupation plays a role in consumer awareness. Notably, monthly income does not significantly affect any of the identified barriers. These insights contribute to a better understanding of consumer preferences and challenges in the organic food sector, offering valuable implications for marketers, policymakers, and businesses aiming to promote sustainable and organic consumption in Rajkot City.

**Keywords:** Consumer Behavior, Demographic Factors, Organic Food, Purchasing Decisions, Rajkot City, Sustainability.

## 1 INTRODUCTION

Over the past two decades, there has been a steady increase in the demand for organic food items worldwide [1][2]. People now prioritize foods that enhance immunity and reduce exposure to toxins. The post-pandemic era has significantly influenced this development. Recent research forecasts that the global organic food market will experience a compound annual growth rate (CAGR) exceeding 12%. This rapid expansion is expected to result in significant market growth in the coming years [3]. Health significantly influences food purchasing behavior [1]. Many individuals choose organic food due to their health consciousness. However, organic food producers often charge premium prices for their products, citing associated health benefits. Consequently, people in lower-income groups tend to avoid purchasing organic food, making price a significant barrier [4]. While some consumers are willing to pay the premium, a lack of trust in the authenticity of organic products prevents them from making such purchases. Thus, trust also plays a crucial role in shaping buying behavior [5].

In India, most people are unaware of the differences between organic and conventional food. They also lack knowledge about the potential side effects of consuming genetically modified (GM) products. According to the Gene Technology Act 2000 [6], a GM product is derived or produced from a genetically modified organism (GMO), other than a GMO itself. Genetically modified food is made using a genetically modified organism (GMO), which could be an animal, plant, or microorganism. Critics of GM food argue that these products may be toxic, cause allergies, or make microorganisms resistant to antibiotics. Additionally, they demand long-term research, as most available studies do not extend beyond a few months. Consumers aware of GM ingredients tend to prefer products that do not contain them [7].

A general lack of awareness about organic food products makes knowledge a crucial factor in influencing buying behavior. Increased knowledge encourages consumers to purchase these products, often leading to a greater willingness to pay higher prices [8]. While environmental concerns can also influence buying behavior, some researchers have found that many consumers are not highly concerned about environmental issues and, therefore, do not consider environmental impacts when purchasing [9]. Additionally, reference groups are pivotal in shaping consumer behavior [10]. Research indicates that health benefits, trustworthiness, social innovativeness, functional value, subjective norms, and knowledge about organic products positively influence consumers' purchase intentions. Moreover, health consciousness and trustworthiness are key predictors of organic food purchase intentions [11].

## 2 LITERATURE REVIEW

Marjan Bazhan et al. studied factors affecting purchase intention of organic food products [12]. The study utilized a multistage sampling method for survey data collection.

The researchers found that attitude, environmental concern, and sensory characteristics directly influence customers' propensity to purchase organic food. Additionally, through their impact on attitude, factors such as knowledge, perceived price, and household size indirectly affect purchasing intentions. Age also indirectly influences purchasing behavior by influencing health consciousness, environmental concern, perceived cost, and sensory attributes. These findings highlight the importance of awareness and a positive outlook in encouraging consumers to buy organic products.

Shobha et al. conducted a survey-based study involving 106 consumers and used structural equation modeling (SEM) to analyze the data [13]. The study investigates key variables influencing Indonesian consumers' decisions to buy organic food, including perceived cost, availability, subjective standards, health consciousness, and knowledge. The results indicate that availability and health consciousness directly impact consumer behavior regarding organic food, influencing purchase intention and actual purchasing behavior. Additionally, the study considers sociodemographic factors to understand their influence better. The findings provide insights for marketers targeting health-conscious consumers and effectively promoting organic products in Indonesia.

Boban Melovic et al. conducted a study using a questionnaire for data collection and SEM for analysis [14]. The findings indicate that pricing and promotion are the most significant factors affecting consumer acceptability and purchasing decisions. Further analysis reveals that attitudes toward organic food products primarily influence consumer perception and attitudes toward the existing organic food market, the price/quality ratio, distribution barriers, and the use of modern media as a promotional tool. These results offer valuable insights for producers and decision-makers to understand consumer preferences better and optimize their market offerings to meet consumer expectations.

Song Bee Lian et al. examined the impact of various marketing stimuli on Malaysian consumers' attitudes toward purchasing organic food [15]. The study analyzed five key factors: price, availability, sales promotion, marketing communications, and product characteristics. Using SEM, the researchers surveyed 430 Malaysian consumers and tested six hypotheses. The findings suggest that product features, availability, and sales promotions strongly influence consumer perceptions of organic food. Additionally, a positive relationship exists between consumer perception and actual purchasing behavior. However, price and marketing messages did not significantly affect consumer sentiment.

Hermin Istiasih explored the factors influencing organic food consumption behavior in Kediri, East Java, Indonesia [16]. The study focused on four key determinants: price, luxury, social status symbolism, and sustainability. Using SEM, data from 190 respondents were analyzed. The results indicate that sustainability, affordability, and social status symbolism significantly impact organic food consumption behavior. However, luxury does not appear to have a substantial influence. The study identifies three primary consumer behaviors related to organic food: signaling social status, expressing sustainability principles, and investing in long-term well-being. In East Java, organic food is positioned as both a social trend and a health-conscious choice.

The literature highlights factors influencing consumer behavior toward organic food, including price sensitivity, health consciousness, environmental concerns, and trust in organic certifications. While studies across different regions emphasize the role of demographics, marketing strategies, and social influence, localized research is still needed to understand how these factors vary across specific markets. Additionally, gaps remain in exploring the long-term behavioral changes of consumers, the effectiveness of awareness campaigns, and the impact of government policies on organic food adoption. This study aims to fill these gaps by analyzing the key determinants and barriers affecting organic food consumption in Rajkot City, providing insights that can guide both business strategies and policymaking to promote sustainable consumer behavior.

### 3 SIGNIFICANCE AND OBJECTIVES OF CURRENT STUDY

This study can assist retailers and organic food producers refine their strategies to better meet regional consumers' unique preferences. Additionally, the research has significant implications for sustainable development. Promoting the adoption of organic food may lead to the broader implementation of environmentally friendly farming practices, reducing reliance on chemical pesticides and fertilizers commonly used in conventional agriculture. This shift benefits the environment and supports public health initiatives by minimizing consumer exposure to harmful substances. Furthermore, policymakers and government officials can utilize the study's findings to develop programs and policies encouraging organic food consumption, ultimately contributing to public health improvements and environmental conservation. Overall, this research provides valuable insights for farmers, businesses, and other stakeholders in the organic food sector. The objectives of the Study are:

1. To examine the key factors driving consumer preferences for organic food.
2. To identify the barriers limiting the adoption of organic food among consumers.
3. To analyze the role of demographic, psychological, and cultural variables in shaping buying behavior.
4. To assess the impact of demographic factors on consumer purchasing behavior.
5. To analyze the factors influencing consumer decision-making regarding organic food products.

## 4 RESEARCH METHODOLOGY

### 4.1. Target Population

The study's target population consists of residents of Rajkot City, including both organic food consumers and non-consumers. This ensures a diverse sample that captures various perspectives on organic food purchasing behavior.

### 4.2. Research Design

This study follows a descriptive research design to analyze the purchasing patterns of consumers in Rajkot City regarding organic food products. The primary objective is to examine the factors influencing consumer preferences, buying behaviors, and challenges in adopting organic food.

### 4.3. Sampling Technique

A convenience sampling method, which is a non-probability sampling technique, was employed to select participants. This method was chosen for its practicality and accessibility, allowing the researcher to collect data from respondents who were readily available and willing to participate in the survey.

### 4.4. Sample Size

A total of 104 respondents participated in the study. This sample size was considered sufficient to provide meaningful insights into the consumer behavior of Rajkot City's population.

### 4.5. Data Collection Method

The primary data for the study was collected through a structured questionnaire. The questionnaire aimed to gather information on the following aspects:

- Demographic details: Age, gender, education, occupation, and income level.
- Awareness and familiarity with organic food products.
- Factors influencing purchasing decisions, including availability, price, environmental concerns, and health benefits.
- Frequency and quantity of organic food purchases.
- Reasons for not purchasing organic food.

### 4.6. Data Analysis

The collected data was analyzed using statistical tools and techniques. Descriptive statistics, including percentages, were used to summarize the data. Additionally, inferential statistical methods, such as ANOVA (Analysis of Variance), were applied to test hypotheses and draw conclusions.

### 4.7. Demographic Overview of the Sample

- Gender Distribution: 59.6% males (62 respondents) and 40.4% females (42 respondents).
- Age Groups:
  - Under 20 years: 61.5%
  - 21–30 years: 28.8%
  - 31–40 years: 6.7%
  - 41–50 years: 2.9%
- Educational Background:
  - Below 12th grade: 22.1%
  - Graduates: 29.8%
  - Postgraduates: 34.6%
  - Other qualifications: 13.5%
- Occupation:
  - Students: 75%
  - Employed: 12.5%
  - Self-employed: 8.7%
  - Homemakers: 3.8%
- Monthly Income Levels:
  - Less than ₹20,000: 27.9%
  - ₹20,000–50,000: 32.7%
  - ₹50,001–1,00,000: 21.2%
  - More than ₹1,00,000: 18.3%

## 5 HYPOTHESIS TESTING

### 5.1. Hypothesis 1

- $H_0$  (Null Hypothesis): There is no significant relationship between demographic variables and factors influencing buying behavior.
- $H_1$  (Alternative Hypothesis): There is a significant relationship between demographic variables and factors influencing buying behavior.

Table 1 represents the significance values (p-values) obtained from the survey analysis of factors influencing the purchase of organic food. The analysis examines the relationship of various factors (Price, Brand, Health, Environment, Taste, Certification, Family/Friends, and Advertisement) with demographic variables (Gender, Age, Education, Occupation, and Monthly Income).

Table 1. Relationship Between Demographic Variables and Factors Influencing Organic Food Purchasing Behavior

Factors	Price	Brand	Health	Environment	Taste	Certification	Family/Friends	Advertisement
Gender	0.299	0.294	<b>0.001</b>	0.233	0.557	0.138	0.958	0.85
Age	<b>0.000</b>	<b>0.020</b>	0.132	0.097	0.248	0.903	0.186	0.774
Education	<b>0.033</b>	0.076	0.489	0.215	0.063	0.629	0.283	0.296
Occupation	<b>0.016</b>	0.085	0.448	0.376	0.097	0.654	0.597	0.161
Monthly Income	<b>0.002</b>	<b>0.033</b>	0.536	0.280	0.812	0.625	0.386	0.351

Note: Values in bold indicate statistical significance at the 5% level ( $p < 0.05$ ).

#### Key Findings from the Table

- Gender significantly influences Health ( $p = 0.001$ ) but does not significantly affect other factors such as Price, Brand, or Environment.
- Age significantly affects Price ( $p = 0.000$ ) and Brand ( $p = 0.020$ ), indicating that different age groups have varying levels of price sensitivity and brand preference.
- Education significantly influences Price ( $p = 0.033$ ) and shows a near-significant effect on Taste ( $p = 0.063$ ), suggesting that individuals with higher education levels may prioritize price and taste differently.
- Occupation significantly impacts Price ( $p = 0.016$ ), implying that professionals or individuals in different job roles may have varying price considerations when purchasing organic food.
- Monthly Income significantly affects Price ( $p = 0.002$ ) and Brand ( $p = 0.033$ ), meaning higher-income individuals are less price-sensitive and more inclined toward branded organic products.

The analysis reveals that demographic factors such as Age, Education, Occupation, and Monthly Income play a significant role in shaping consumer preferences for organic food, particularly concerning Price and Brand. However, factors such as Health, Environment, and Certification appear to be universal motivators rather than demographic-specific influences. Marketing strategies should, therefore, be tailored to these demographic groups while also highlighting the broader appeal of health and environmental benefits.

### 5.2. Hypothesis 2: Barriers to Organic Food Consumption

- $H_0$  (Null Hypothesis): There is no significant relationship between demographic variables and the barriers affecting organic food purchasing behavior.
- $H_1$  (Alternative Hypothesis): There is a significant relationship between demographic variables and the barriers affecting organic food purchasing behavior.

Table 2 presents the significance values (p-values) obtained from the survey analysis, examining the relationship between various barriers (high price, limited availability, lack of trust, no difference in taste, and lack of awareness) and demographic factors (Gender, Age, Education, Occupation, and Monthly Income).

Table 2: Relationship Between Demographic Variables and Barriers to Organic Food Consumption

Factors	High Price	Limited Availability	Lack of Trust	No Difference in Taste	Lack of Awareness
Gender	0.205	0.017	0.111	0.566	0.682
Age	0.455	0.463	0.579	0.296	0.011
Education	0.874	0.025	0.193	0.152	0.005
Occupation	0.146	0.832	0.405	0.246	0.021
Monthly Income	0.381	0.424	0.062	0.067	0.287

Note: Values in bold indicate statistical significance at the 5% level ( $p < 0.05$ ).

### Analysis and Interpretation of the Table

- Limited availability ( $p = 0.017$ ) is significantly influenced by gender, suggesting that men and women perceive the availability of organic food differently. Other barriers do not show a significant association with gender.
- Lack of awareness ( $p = 0.011$ ) is significantly influenced by age, indicating that awareness levels differ among age groups. Other barriers do not show a significant relationship with age.
- Limited availability ( $p = 0.025$ ) and lack of awareness ( $p = 0.005$ ) are significantly influenced by education, meaning that individuals with different education levels perceive these barriers differently. Other barriers do not show a significant association with education.
- Lack of awareness ( $p = 0.021$ ) is significantly influenced by occupation, indicating that awareness varies across occupational groups. Other barriers do not show a significant relationship with occupation.
- Monthly income does not significantly impact any of the identified barriers, as all  $p$ -values exceed 0.05.

### 5.3. Findings and Conclusion

- The results indicate that demographic factors influence specific barriers to organic food consumption.
- Gender affects perceptions of limited availability.
- Age and Education significantly impact the lack of awareness.
- Education also plays a role in perceptions of limited availability.
- Occupation influences lack of awareness.
- Monthly income does not significantly affect any of the barriers.

These insights suggest that awareness campaigns and marketing strategies should be tailored to specific demographic groups to address key barriers such as availability and knowledge gaps.

### 5.4. Limitations of the Study

- The study is limited to Rajkot City, and findings may not be generalizable to other regions.
- The use of convenience sampling may introduce bias, as the sample may not fully represent the entire population.
- Responses are based on self-reported data, which may include social desirability bias or recall bias, affecting accuracy.

## 6 CONCLUSIONS

This study provides valuable insights into the factors influencing consumers' purchasing decisions for organic food in Rajkot City. The findings indicate that price is the most significant determinant across demographic groups, with strong influences from age, education, occupation, and monthly income. Brand perception is moderately influenced by age and income, while taste plays a crucial role, particularly across different genders. Although health benefits, environmental concerns, and organic certifications are universal motivators, they show limited demographic influence. The study also identifies key barriers to organic food consumption. Gender significantly affects perceptions of limited availability, while age, education, and occupation play crucial roles in shaping awareness levels. However, monthly income does not significantly impact any of the identified barriers. The implications of this study are significant for marketers, policymakers, and businesses aiming to promote organic food adoption. Tailored marketing strategies focusing on price sensitivity, awareness programs, and availability improvements can enhance consumer interest in organic food. Additionally, public policy interventions should focus on increasing accessibility and educating consumers on organic food's health and environmental benefits. Future research could explore a more extensive and more diverse sample beyond Rajkot City to improve generalizability. Further, longitudinal studies could provide deeper insights into changing consumer behavior.

### FUNDING INFORMATION

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

### ETHICS STATEMENT

This study did not involve human or animal subjects and, therefore, did not require ethical approval.

### STATEMENT OF CONFLICT OF INTERESTS

The authors declare no conflicts of interest related to this study.

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