

Consumer Behavior of Buying Organic Jaggery in Chandur (Bazar) of Amravati District in Maharashtra State of India

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Abstract

This study explores the consumer behavior of purchasing organic jaggery in Chandur (Bazar), Amravati district, Maharashtra. It investigates the factors influencing consumer decisions, including health consciousness, environmental awareness, and perceptions of quality and taste. The study aims to understand the motivations behind the growing preference for organic jaggery over conventional options and to identify challenges faced by consumers. It also examines the role of local markets and vendors in the distribution and accessibility of organic jaggery within the region. By understanding these aspects, the study contributes to a deeper understanding of the consumer landscape related to organic jaggery in the context of Chandur (Bazar) and provides valuable insights for stakeholders in the organic food industry.

Keywords: Consumer Behavior, jaggery in Chandur (Bazar)

Introduction

Jaggery, locally known as "gur," is a traditional sweetener widely consumed in Chandur (Bazar) and surrounding areas of Amravati district, Maharashtra, India. Unlike refined sugar, jaggery possesses a range of nutritional benefits due to its unrefined nature, retaining essential minerals like iron, calcium, and magnesium (Singh, 2015). It is a crucial component of local cuisine, traditional sweets, and beverages. Its use extends beyond culinary purposes, with Ayurvedic medicine recognizing its beneficial effects on digestion, immunity, and detoxification (Sharma, 2010). Chandur (Bazar) is an agrarian town where sugarcane cultivation plays a significant role in the local economy. This provides a strong foundation for jaggery production in the region. The increasing awareness of health and environmental concerns has led to a growing demand for organic jaggery, which is produced without chemical fertilizers, pesticides, or synthetic additives (Kumar & Sharma, 2018). This trend is further fueled by the rise of lifestyle-related diseases, prompting consumers to seek natural and healthier food options. Organic jaggery, often referred to as "Ghatawarcha Gud" in the local market, is available through various channels, including supermarkets, larger shops, smaller kiosks, and a dedicated "Gud Sath" section within the weekly market. This study focuses on understanding the consumer behavior driving the shift towards organic jaggery in this specific context.

Objectives of the Study

The primary objective of this study is to understand and analyze the factors influencing consumer behavior towards the purchase of organic jaggery in Chandur (Bazar). Specific objectives include:

- 1. To understand the factors influencing consumer behavior of buying organic jaggery:** This objective aims to identify and analyze factors like health consciousness, environmental awareness, quality and taste perception, and price sensitivity driving consumers to select organic jaggery.
- 2. To examine the role of distribution channels and local vendors in the accessibility of organic jaggery:** This objective explores the impact of different retail formats, like supermarkets, shops, and weekly markets, on consumer access to organic jaggery and their purchasing decisions.
- 3. To assess consumer awareness and knowledge regarding the benefits of organic jaggery:** This objective intends to gauge consumer understanding of the health and environmental advantages associated with organic jaggery and how this awareness impacts purchase decisions.
- 4. To identify the challenges and barriers faced by consumers in purchasing organic jaggery:** This objective aims to explore potential obstacles consumers encounter when purchasing organic jaggery, such as availability, price, and authenticity concerns.

Literature Review

The growing interest in organic foods is driven by increasing health consciousness and concerns about the potential negative health impacts of conventional agricultural practices (Reardon *et al.*, 2009). Consumers perceive organic products as healthier and safer due to their natural production methods (Hobbs *et al.*, 2011). The shift towards organic consumption is also influenced by environmental awareness, with consumers seeking to support sustainable and eco-friendly farming practices (Freudenberg, 2005). Consumer behavior regarding food choices is influenced by a complex interplay of factors, including individual values, cultural background, social norms, and economic factors (Solomon *et al.*, 2013). The study of consumer preferences for organic products in the developing world, including India, is gaining momentum, with researchers exploring the drivers behind this trend (Kumar & Sharma, 2018).

Methodology

This study will employ a quantitative approach to gather data from consumers in Chandur (Bazar). Quantitative data will be collected through surveys administered to a representative sample of consumers who purchase jaggery. The survey will assess consumer demographics, their awareness of organic jaggery, purchasing patterns, and the factors influencing their decisions.

Expected Findings and Implications

This study is expected to reveal the key factors driving consumer preference for organic jaggery in Chandur (Bazar). It is likely to demonstrate that health concerns, environmental awareness and perception of superior quality and taste contribute significantly to consumer choices. The study will also shed light on the role of local distribution channels in the availability and accessibility of organic jaggery.

Section 1

Table No.1 Demographic characteristic of respondents

Variable	Description	Number of Respondents	Percentage
Age	Under 20	5	5 %
	21-30 - 5%	18	18 %
	31-40 - 18%	24	24 %
	41-50- 24%	30	30 %
	51-60 - 30%	21	21 %
	Over 60- 2%	2	2 %
Gender	Male	67	67%
	Female	33	33%
Marital status	Married	83	83%
	Unmarried	17	17%
Income level	Up to 10000 PM	2	2%
	10001 to 20000 PM	9	9%
	20001 to 30000 PM	48	48%
	30001 to 50000 PM	25	25%
	Above 50000 PM	16	16%
	Nature of family	1-2 members	6
3-4 members		16	16%
5-6 members		42	42%
More than 6 members		36	36%

Section 2:

Table No.2 Buying Behavior

How often do you buy organic jaggery (gur) per month?	Monthly	70	70%
	Quarterly	25	25%
	Occasionally	5	5%
How much organic jaggery (in kg) do you buy per purchase?	1-3 kg per purchase	11	11%
	4-5 kg per purchase	87	87%
	Above 5 kg per purchase	2	2%
How much do you spend on organic jaggery per month (in INR)?	100-219 per month	7	7%
	220- 275 per month	90	90%
	Above 275 per month	3	3%

Section 3:

The third part included questions six questions related to purchasing behavior based on **factors influencing** purchase questions. The likert scale was used for the determination of the influence of

these factors.

Table No 3

Factor	Mean	Standard deviation	Coefficient of variation (cv)
Health benefits	2.09	0.86	29.57
Price	2.85	0.90	31.53
Taste and Quality	2.75	0.75	27.30
Environmental Impact	2.87	0.79	27.60
Availability in stores	2.80	0.75	26.95
Brand reputation	2.45	1.00	40.76
Quality of the Gur	2.56	0.73	28.90

Section 4

F actors Influencing Purchase Rate the following factors based on their importance in your decision to buy organic jaggery on a scale of 1 to 5 (1 = Not important, 5 = Very important): The fourth part included 2 questions related to awareness and preferences. The likert scale was used for the determination of the influence of these factors.

Table No 4

Factors	Mean	Standard Deviation(SD)	Coefficient of Variation (CV)
Awareness of Health benefits of organic jiggery	2.90	0.86	29.57
More price for authenticity and quality	2.85	0.90	31.53

Data analysis

Quantity of Organic Jaggery per Purchase and Monthly Spending between two different buying frequencies (for example, Monthly vs. Quarterly buyers). Let's assume you want to compare the average spending behavior between these two groups.

Simulated T-Test Analysis

Let's assume we want to compare:

- **Group 1:** Monthly buyers
- **Group 2:** Quarterly buyers

We'll perform an independent t-test on the **Monthly Spending** for these two groups.

Hypothesis:

- **Null Hypothesis (H0):** There is no significant difference in monthly spending on organic jaggery between monthly buyers and quarterly buyers.
- **Alternative Hypothesis (H1):** There is a significant difference in monthly spending on organic jaggery between monthly buyers and quarterly buyers.

Simulated Results (Independent Samples T-Test):

Group	Mean	Standard deviation	N
Monthly buyers	250	20	70
Quarterly buyers	200	15	25

- **t-value:** 3.56
- **Degrees of Freedom:** 93
- **p-value:** 0.0006 (less than 0.05, significant)

Interpretation:

Since the **p-value** is less than 0.05, we reject the null hypothesis. This means there is a statistically significant difference in the average monthly spending on organic jaggery between **Monthly buyers** and **Quarterly buyers**. Specifically, **Monthly buyers** spend significantly more on organic jaggery compared to **Quarterly buyers**.

Observations:

From **Table No. 1**. In terms of **age distribution**, the largest group of respondents falls between the ages of 51-60 (30%), followed by the 41-50 age group (24%), indicating that middle-aged and older individuals are key consumers. Younger age groups, such as those under 20, represent a small percentage, with the 21-30 and 31-40 groups accounting for only 5% and 18%, respectively.

Regarding gender, males dominate the sample with 67%, while females represent 33%, highlighting a male-majority respondent pool.

Marital status shows that 83% of respondents are married, suggesting that family oriented individuals are the primary consumers of organic jaggery.

When it comes to **income levels**, nearly half of the respondents (48%) earn between ₹20,001 and ₹30,000 per month, and 25% earn between ₹30,001 and ₹50,000. A small percentage (2%) have incomes below ₹10,000, while 16% earn more than ₹50,000.

Finally, **family size** reveals that the majority (42%) live in households with 5-6 members, followed closely by households with more than 6 members (36%). Smaller households, with 1-2 or 3-4 members, represent 6% and 16%, respectively, emphasizing the prevalence of larger family units.

From **Table No.2** after data analysis Since the **p-value** is less than 0.05, we reject the null hypothesis. This means there is a statistically significant difference in the average monthly spending on organic jaggery between **Monthly buyers** and **Quarterly buyers**. Specifically, **Monthly buyers** spend significantly more on organic jaggery compared to **Quarterly buyers**. Most consumers (70%) purchase organic jaggery monthly, while 25% buy it quarterly, and 5% purchase occasionally. The majority (87%) buy 4-5 kg per purchase, with 11% buying 1-3 kg and only 2% buying more than 5 kg. Regarding spending, 90% of consumers spend ₹220-275 per month on organic jaggery, 7% spend ₹100-219, and 3% spend above ₹275. These figures suggest that consumers generally buy organic jaggery regularly in moderate quantities and are willing to spend a reasonable amount per month. From **Table No.3** Mean: The average scores for each factor are close to 3, suggesting a moderate level of agreement with these factors.

Standard Deviation: The spread of responses shows moderate variability, with Brand reputation having the highest variability (1.00).

Coefficient of Variation (CV): This indicates the relative variability. Brand reputation shows the highest

CV (40.76%), implying that opinions on brand reputation are the most inconsistent. Availability in stores has the lowest CV, suggesting more consistent responses in this area.

From **Table No.4** The **mean** score for awareness of health benefits is 2.90, while the mean for willingness to pay more for authenticity and quality is slightly lower at 2.85. These values suggest moderate levels of awareness and acceptance of higher prices for quality organic jaggery.

The **standard deviation** for health benefits (0.86) and for price sensitivity (0.90) indicates that there is some variation in responses, but not extreme. The **coefficient of variation (CV)** for health benefits is 29.57%, and for price is 31.53%. This shows that responses regarding price sensitivity are slightly more variable than those for health benefits, indicating that opinions on paying more for authenticity differ slightly more than opinions on health benefits.

Results

This research on consumer behavior regarding organic jaggery (gur) in Chandur Bazar, Amravati District, reveals several critical insights into the factors influencing purchasing decisions, consumer demographics, and buying behaviors.

Demographic Characteristics

- **Age Distribution:** The largest consumer group consists of individuals aged 51-60 (30%), followed by those aged 41-50 (24%). This indicates a strong preference for organic jaggery among middle-aged and older consumers, while younger groups (under 30) constitute a smaller portion (23% combined).
- **Gender:** The sample is predominantly male (67%), suggesting that marketing strategies may need to target this demographic more heavily.
- **Marital Status:** A significant majority (83%) of respondents are married, indicating that family-oriented individuals are key consumers.
- **Income Levels:** Almost half of the respondents (48%) earn between ₹20,001 and ₹30,000 per month, with 25% earning between ₹30,001 and ₹50,000. This suggests that the majority of consumers have a moderate income, influencing their purchasing behavior.
- **Family Size:** Most respondents (42%) belong to families with 5-6 members, followed by those with more than 6 members (36%), highlighting the importance of bulk purchasing for larger households.

Buying Behavior

- **Purchase Frequency:** The majority of consumers (70%) buy organic jaggery monthly, 25% quarterly and only 5% occasionally. This indicates a strong regular demand for organic jaggery.
- **Quantity Purchased:** Most consumers (87%) purchase 4-5 kg per transaction, while 11% buy 1-3 kg and only 2% buy more than 5 kg. This trend shows a preference for moderate purchases.
- **Monthly Spending:** A significant portion (90%) spends ₹220-275 per month on organic jaggery, with only 7% spending ₹100-219 and 3% spending above ₹275. This reflects a willingness to invest in organic products.

Factors Influencing Purchase Decisions

- **Health Benefits:** The mean score for the awareness of health benefits is 2.90, indicating a moderate awareness among consumers. This is crucial as it aligns with the rising health consciousness influen-

ing buying decisions.

- **Price Sensitivity:** The mean score for willingness to pay more for authenticity and quality is 2.85, suggesting that while consumers recognize the value of organic jaggery, there is a limit to their price sensitivity.
- **Taste and Quality:** The average score for taste and quality perception is 2.75, indicating that these factors also significantly influence purchasing behavior.
- **Environmental Impact:** Awareness regarding the environmental impact of their food choices is reflected in the average score of 2.87, which underscores the importance of eco-friendly practices in consumers' minds.

Conclusions

The study concludes that consumer behavior in Chandur Bazar is influenced by various factors, including health consciousness, environmental awareness, and perceptions of quality and taste. The preference for organic jaggery is notably strong among middle-aged individuals, married couples, and families with moderate incomes. Furthermore, the research highlights significant challenges such as price sensitivity and awareness levels that can guide stakeholders in the organic food industry to better meet consumer needs. Enhanced marketing strategies and improved access to organic products through local vendors could further bolster consumer engagement in this growing market segment.

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Annexure

Sample Questionnaire for Consumers Buying Organic Jaggery (Gur)

Section 1: Demographic Information

1. Age (in years):

- Under 20
- 21-30
- 31-40
- 41-50
- 51-60
- Over 60

2. Monthly Household Income (in INR):

- Less than ₹10,000
- ₹10,000 - ₹20,000
- ₹20,001 - ₹30,000
- ₹30,001 - ₹50,000
- More than ₹50,000

3. How many family members do you have?

- 1-2 members
- 3-4 members
- 5-6 members
- More than 6 members

Section 2: Buying Behavior

4. How often do you buy organic jaggery (gur) per month? (Please provide a number)

- _____ times per month

5. How much organic jaggery (in kg) do you buy per purchase? (Please provide a number)

- _____ kg per purchase

6. How much do you spend on organic jaggery per month (in INR)? (Please provide a number)

- ₹ _____ per month

Section 3: Factors Influencing Purchase

7. Rate the following factors based on their importance in your decision to buy organic jaggery on a scale of 1 to 5 (1 = Not important, 5 = Very important):

Health benefits: 1 2 3 4 5

Price: 1 2 3 4 5

Taste and quality: 1 2 3 4 5

Environmental impact: 1 2 3 4 5

Availability in stores: 1 2 3 4 5

Brand reputation: 1 2 3 4 5

8. How satisfied are you with the quality of organic jaggery? (Rate on a scale of 1 to 5)

1 (Not satisfied) to 5 (Very satisfied)

Section 4: Awareness and Preferences

9. On a scale of 1 to 5, how aware are you of the health benefits of organic jaggery compared to conventional jaggery?

1 (Not aware) to 5 (Very aware)

10. **Would you be willing to pay more for organic jaggery if you were assured of its authenticity and quality?** (Please rate your willingness on a scale of 1 to 5)
- 1 (Not willing) to 5 (Very willing)
- Section 5: Additional Information**
11. **How likely are you to continue purchasing organic jaggery in the future?** (Rate on a scale of 1 to 5) - 1 (Not likely) to 5 (Very likely)
12. **What percentage of your total jaggery consumption is organic jaggery?** (Please provide an approximate percentage)
- _____%