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Study on Market Analysis and Consumer Acceptance of Different Mango Based R.T.S Drinks

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A B S T R A C T:

The mango market segment is a rapidly growing and highly competitive sector in the beverage industry , driven by rising consumer demand for fruit-based , natural and refreshing drinks especially in countries like India , where mango has strong cultural and emotional significance. This research paper presents comprehensive market analysis and consumer acceptance of leading mango drink brands such as Maaza (Coca-Cola) , Slice (PepsiCo) , Frooti (Parle Agro) , Real (Dabur) , B-Natural (ITC). A dual methodology was adopted , wherein a structured questionnaire was distributed to 100 respondents to examine purchase frequency , brand preference , influencing factors such as price , availability , health perception , packaging appeal. Simultaneously , consumer preferences were assessed through a 9-point hedonic scale for key sensory attributes , including appearance , flavor , taste , texture , and overall acceptability. By integrating both perceptual and sensory data , this study provides valuable insights into consumer expectations and product performance. The findings can aid beverage manufacturers in aligning product development with evolving consumer preferences for both sensory aspects and health –conscious offerings.

Keywords: Mango drinks , Maaza , Frooti , Slice , Real , B-natural , Consumer Preference , Hedonic Scale , Market Analysis , India.

Introduction

Mangoes, often recognized as the “king of fruits’’, occupy a cherished place in Indian culture, cuisine, and commerce. Across the nation, people eagerly await mango season, when the fruit becomes a staple in everything from savory dishes and sweet treats to refreshing summer beverages. This deep-rooted affection has contributed to the sustained growth of the mango-flavoured beverage market, which continues to expand in response to the increasing demand for fruit-based, ready-to-drink products.

Well-known brands like Maaza, Frooti, B- Natural, Real, and Slice are now found in many homes, giving people a tasty and easy option when fresh mangoes are not available. These drinks appeal to a wide range of customers by offering good flavor, attractive packaging, and affordable prices. Maaza, owned by Coca-Cola, is often regarded as the market leader. It is recognized for its rich, authentic mango flavor and strong brand loyalty. Frooti, from Parle Agro, is one of the longest-running brands in the category, famous for its tetra pack packaging and appeal to children and young adults. PepsiCo’s Slice is well-known for its thick, pulpy texture and is highly visible due to celebrity endorsements and large-scale marketing campaigns. Real, under Dabur, is popular for its juice blends and presence in both mango nectar and mixed fruit beverages. ITC’s B- Natural is rising rapidly, focusing on “not from concentrate” juices and creating a niche among urban and health-conscious consumers. These brands dominate the Indian mango drink market in terms of market share, visibility, and consumer choice. Maaza and Frooti are particularly noted as the top two by volume and brand recall, with Slice and Real also maintaining significant consumer bases. B- Natural, while newer, is making notable gains due to its health-oriented messaging.

The main purpose of this study is to understand the factors that influence consumer preferences for popular mango drinks like Maaza, Frooti, B-Natural, Real, and Slice.

To better understand what people, like about these mango drinks, we not only conducted a survey using a questionnaire but also carried out sensory evaluation. One of the most widely accepted methods to measure consumer acceptability of food and beverage products, including mango fruit drinks, is the 9-point hedonic scale, this scale provides a structured and standardized approach for participants to rate sensory attributes such as colour, odor, taste, mouthfeel, sweetness, viscosity, and overall acceptance. The scale ranges from 1 (“dislike extremely”) to 9 (“like extremely”), allowing for nuanced and assessable assessment of product preferences.

Score/Rating	Hedonic scale
9	I like extremely
8	I like very much
7	I like moderately
6	I like slightly
5	I neither like or dislike
4	I dislike slightly
3	I dislike moderately
2	I dislike very much
1	I dislike extremely

While hedonic ratings are widely used in sensory analysis to assess consumer preferences, they are often susceptible to psychological biases, particularly expectation bias. This bias commonly arises when participants are aware of the brand associated with a product, potentially influencing their evaluations based on preconceived notions rather than actual sensory attributes. Such influences can distort the reliability of sensory data by artificially inflating or deflating scores. To address this issue, our study utilized the 9-point hedonic scale within a blind tasting protocol, whereby participants assessed mango fruit drinks without any knowledge of the brand identity. This methodology was employed to reduce expectation bias and obtain a more objective assessment of the intrinsic sensory acceptability of the products. This dual methodology allows for the assessment of both psychological influences-such as brand loyalty, trust and genuine sensory acceptance.

Objectives of the Study:

1. To evaluate consumer’s preference concerning different mango-flavoured beverages i.e., Maaza, Frooti, Slice, Real and B-natural.
2. To determine and analyse consumer perceptions and expectations regarding these Mango drink brands.
3. To examine correlation between perceived brand image and actual product acceptability

Literature Review

India’s deep-rooted cultural connection with mangoes has fueled the growth of mango-based beverages, making them a key segment in the fruit drink industry. Brands like Maaza, Frooti, Slice, B-Natural, and Real have carved distinct identities in this space by leveraging diverse strategies in taste, packaging, branding, and consumer targeting.

According to Kotler and Armstrong (2020), brand positioning plays a crucial role in consumer perception and loyalty. This is reflected in how Maaza promotes nostalgia and consistency, Frooti uses vibrant packaging to appeal to youth, while Slice positions itself as a premium indulgent drink. Meanwhile, B-Natural and Real emphasize natural ingredients, health benefits, and clean labeling to attract health-conscious consumers.

Consumer buying behavior, as discussed by Schiffman and Wisenblit (2022), is influenced by a mix of psychological and situational factors such as taste, price, availability, and brand image. Peter and Olson (2019) further reinforce that sensory satisfaction remains central to beverage choice, especially in a flavor-specific category like mango.

In recent years, hedonic scale-based sensory evaluation has gained prominence in measuring consumer preference. As noted by Stone and Sidel (2020), the 9-point hedonic scale is an effective tool in gauging how consumers rate products based on attributes like taste, texture, appearance, and overall liking. Such evaluations help brands assess product acceptance and preference in a structured, quantitative manner. In this research, hedonic ratings were employed to analyze consumer responses to the five major mango drink brands, providing direct insight into sensory-driven preferences.

Market insights from Nielsen (2023) and KPMG (2024) highlight a growing trend toward non-carbonated, fruit-based drinks with natural ingredients and health positioning. Mint (2025) and The Hindu Business Line (2023) observe increasing demand beyond seasonal consumption, influenced by urban lifestyles, e-commerce access, and innovative marketing campaigns.

Overall, the literature suggests that while taste remains a dominant factor, today’s consumers are also influenced by brand story, health benefits, packaging appeal, and emotional engagement. Incorporating tools like hedonic scaling into consumer studies offers valuable feedback that can shape product strategies in this competitive and culturally significant market.

Research Methodology

The research methodology lays a foundation for any scientific study, providing methodical approach for collecting , processing and analysing data to address the research objectives

1. Research Design

This study follows an analytical research design to understand consumer behaviour, acceptance and preference related to the provided mango drinks . This study focuses on the better understanding for the consumer preference and market trends with specific reference to the brands Maaza, Slice, Frooti, Real , and B-Natural.

2. Type of Research

This research relies on the numerical data collected using-

- a hybrid questionnaire to identify the trends in consumer behavior and market demands
- a 9-point hedonic scale to understand the consumer acceptance.

3. Data Collection

- *Primary Data:* Primary data was collected via questionnaire presented directly to respondents. This facilitated a direct understanding of consumer preferences, satisfaction levels, and perceptions of advertising performance of Maaza, Slice, Frooti, Real, B-Natural.
- *Secondary Data:* Secondary data was obtained from credible publications, industry reports, brand websites and prior research studies focusing on Indian beverage industry and consumer behaviour.

4. Research Instruments

- Questionnaire
- 9-point hedonic rating scale

The questionnaire was divided into 4 sections :

- Consumption Pattern
- Brand Preference
- Health and Purchase behaviour
- Suggestions

5. Sampling Method

Selection of the respondents was carried out through a non-probability convenience sampling technique , based on ease of access and voluntary participation.

6. Sample Size

The research was conducted with a sample size of 100 respondents, considered sufficient to yield preliminary insights and overarching trends in the market and consumer behaviour.

7. Target Population

The target population included respondents from age group of 18 to 30 years which were primarily individuals with a student background. The study included respondents of both genders to achieve equitable representation.

8. Data Analysis

The collected data were systematically tabulated and analysed using statistical techniques such as percentage analysis in case of questionnaire and mean analysis in case of hedonic rating scale. Findings were presented in the form of tables and bar graphs for better understanding.

Data analysis and interpretation based on questionnaire responses

SECTION A : Consumption Pattern

1. Which type of drink do you prefer?

Particular	**No. of Respondents(100)**	**Percentage (%)**
Spiced drinks	5	5%
Carbonated drinks	34	34%
Fruit juices	54	54%
Stimulating drinks	7	7%

Interpretation:

Fruit juices are the most preferred drinks among the 100 respondents, followed by carbonated drinks , stimulating drinks and spiced drinks.

2. Do you consume mango drink?

Particular	**No. of Respondents(100)**	**Percentage (%)**
Yes	84	84%
No	16	16%

Interpretation:

Out of 100 respondents , most respondents consume mango drinks , indicating their popularity in the beverage market.

3. How often do you consume mango drinks?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Daily	0	0%
2-3 times a week	13	15.47%
Occasionally	44	52.38%
Rarely	27	32.14%

Interpretation:

More than half of the respondents consume mango drinks occasionally , indicating that they are not a staple drink but are consumed on a preference basis.

4. At what time of the year do you consume them most?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Summer only	38	45.23%
Throughout the year	16	19.04%
Festive occasions	0	0%
No fixed pattern	30	35.71%

Interpretation:

Most of the respondents consume mango drinks during summer season , followed by those who consume them with no fixed patterns.

SECTION B : Brand Preference

5. Which mango drink do you usually buy?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Maaza	49	58.33%
Slice	25	29.76%
Real	5	5.95%
Frooti	3	3.57%
B-natural	2	2.38%

Interpretation:

Maaza is the most frequently purchased mango drink among the respondents , followed by slice , real , frooti and B-natural.

6. Rank your top 3 mango drink brands in order of preference.

Particular	**Rank 1**	**Rank 2**	**Rank 3**
Frooti	2 (2.38%)	13 (15.47%)	37 (44.04%)
Maaza	53 (63.09%)	22 (26.19%)	7 (8.33%)
Slice	25 (29.76%)	38 (45.23%)	14 (16.66%)
B-Natural	1 (1.19%)	0 (0%)	4 (4.76%)
Real	5 (5.95%)	13 (15.47%)	23 (27.38%)

Interpretation:

Maaza is ranked number 1 , Slice is ranked number 2 , Frooti is ranked number 3 by most of the respondents.

7. Why do you usually choose that brand?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Taste preference	74	88.9%
Availability	25	29.76%
Price	24	28.57%
Brand name	22	26.19%
Advertisements	17	20.23%
Nutritional content	12	14.28%
Habit/Tradition	11	13.09%
Packaging	7	8.33%

Interpretation :

Taste emerges as the leading determinant in consumers' preference for mango drinks , followed by considerations availability and price .

8. Rate the following aspects for your favourite mango drink?

Attribute	**Excellent**	**Good**	**Average**	**Poor**
Taste	42	38	4	0
Sweetness level	11	58	14	1
Price value	24	47	14	0
Packaging appeal	13	41	25	3
Fruit content	4	24	41	17

Interpretation:

Taste received the highest ratings, highlighting its dominance as the primary factor influencing consumer preference.

SECTION C : Health and Purchase behavior

9. Do you check the ingredients or sugar content when buying mango drinks?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Always	5	5.95%
Sometimes	49	58.33%
Never	30	35.71%

Interpretation:

Most of the respondents frequently check the ingredients before purchasing mango drinks , reflecting a growing awareness of health and nutritional factors.

10. What size pack do you usually buy?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Small pack	66	78.57%
Medium pack	13	15.47%
Large pack	5	5.95%

Interpretation :

Most respondents prefer buying small packs, followed by meadium packs , while large packs are the least preferred , indicating a higher inclination toward convenient and single-use packaging .

11. Where do you usually buy it from?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Local grocery shop	73	86.90%
Supermarket	10	11.90%
Online	1	1.19%
Street vendor	0	0%

Interpretation:

Local grocery shops are the main source of purchase , with supermarkets used occasionally , and online or street vendor purchases being almost negligible.

12. Would you prefer mango drinks with no added sugar?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Yes	77	91.66%
No	3	3.57%
Doesn’t matter	4	4.76%

Interpretation :

Majority of the respondents prefer mango drinks with no added sugar , indicating individuals are being inclined towards healthier options.

13. Do you believe mango drinks are a good source of vitamins?

Particular	**No. of Respondents(84)**	**Percentage (%)**
Yes	29	34.52%
No	55	65.47%

Interpretation:

More than half of the respondents believe that mango drinks are not a good source of vitamins , while a few agree , reflecting limited health perception associated with these beverages.

SECTION D : Suggestions

14. What would you like to improve in mango drinks ?

- Reduce added sugar
- Minimize artificial food additives
- Increase the fruit content
- Use eco-friendly , improved packaging
- No added food colors.

15. Would you like to shift to healthier fruit drinks, if available?

Particular	No. of Respondents(100)	Percentage (%)
Yes	92	92%
No	2	2%
Maybe	6	6%

Interpretation:

Majority of the respondents are ready to shift to healthier drinks if available.

Key Findings

1. Brand Preference:

- Maaza is the most preferred mango drink followed by Slice, Real, Frooti and B-Natural.
- Maaza is well-established and popular brand with strong market presence.

2. Significant purchase triggers:

- Taste serves as the primary factor serving the consumer preference, accounted for 88.9% of the respondents decisions.
- Availability and price are also significant factors, reflecting that consumers value both accessibility and affordability.
- Brand reputation and advertising also influence consumers' choice of brand.
- Packaging , consumption habits, and nutritional content emerged as the least influential factors in consumers' purchasing decisions.

3. Mango drink consumption:

- A total of 84% of respondents consume mango drinks , while the remaining 16% do not consume mango drinks , indicating a limited non-consumer segment..

4. Consumption Frequency:

- 52.38% respondents consume mango drinks occasionally , while weekly and daily consumption is comparatively lower , indicating that mango drinks are not a regular part of daily intake.

5. Attribute Ratings:

- For Maaza , taste was rated as "excellent" , while sweetness level , price value and packaging appeal were rated as "good".
- The natural fruit content received an "average" rating.

6. Preferred pack size:

- About 78.57% of respondents usually purchase small packs, while 15.47% opt for medium packs .
- Only a very small proportion prefer large packs.

7. Usual purchase source:

- Majority of respondents usually buy mango drinks from local grocery stores**.**
- A few respondents purchase mango drinks from supermarkets.

- An extremely small fraction of respondents , accounting for just 1.19% purchase it online.

8. Perception of mango drinks:

- 65.47% respondents perceive mango drinks as a source of vitamins , while a smaller proportion are uncertain or believe they lack vitamins.

9. Ingredient and sugar awareness:

- More than half of the respondents check the ingredient list or sugar content occasionally , while 35.71% respondents never check the ingredient list when buying mango drinks.
- Only a small proportion , always check the ingredient list or sugar content when buying mango drinks.

10. Health-conscious mango drink preference:

- Out of the 100 respondents , 92% respondents are ready to shift towards healthy mango drinks , if available .
- A very small proportion do not prefer shifting towards healthy mango drinks.

Sensory Analysis based on hedonic scale

Blind sensory testing of mango drinks of 5 different brands was conducted. In this test , 100 respondents were presented with 125ml of coded mango drinks. The mango drinks were coded as follows – **142** for **Maaza** , **852** for **Slice** , **296** for **Real** , **370** for **B-Natural** , **420** for **Frooti** . They were asked to drink and fill the hedonic scale based on sensory parameters like appearance , flavor , taste , texture , and overall acceptability.

Data Analysis and Interpretation based on hedonic responses

Brand	**Appearance**	**Flavour**	**Taste**	**Texture**	**Overall Acceptability**
420 (Frooti)	6.42	6.01	5.93	6.08	6.18
370 (B-natural)	6.25	6.02	5.90	5.86	5.99
296 (Real)	6.68	5.70	5.67	6.17	6.05
852 (Slice)	6.74	6.55	6.47	6.31	6.50
142 (Maaza)	6.81	6.97	7.03	6.81	6.87

Among the evaluated mango drink brands , Maaza received the highest scores in appearance , flavor , taste , texture , and overall acceptability , indicating it as the most preferred brand . Slice ranked second in the most attributes , while B-natural and Real showed comparatively lower consumer preference.

Key Finding

1. Overall Acceptability

- Maaza scored the highest (6.87) , indicating it is the most preferred overall.
- B-natural scored the lowest (5.99) , indicating it is the least preferred.

2. Appearance

- Maaza (6.81) and slice (6.74) had the most appealing appearance.
- B-natural (6.25) had the lowest appearance score.

3. Flavor

- Maaza (6.97) had the best flavor , followed by Slice(6.55).
- Real (5.70) received the lowest flavor score.

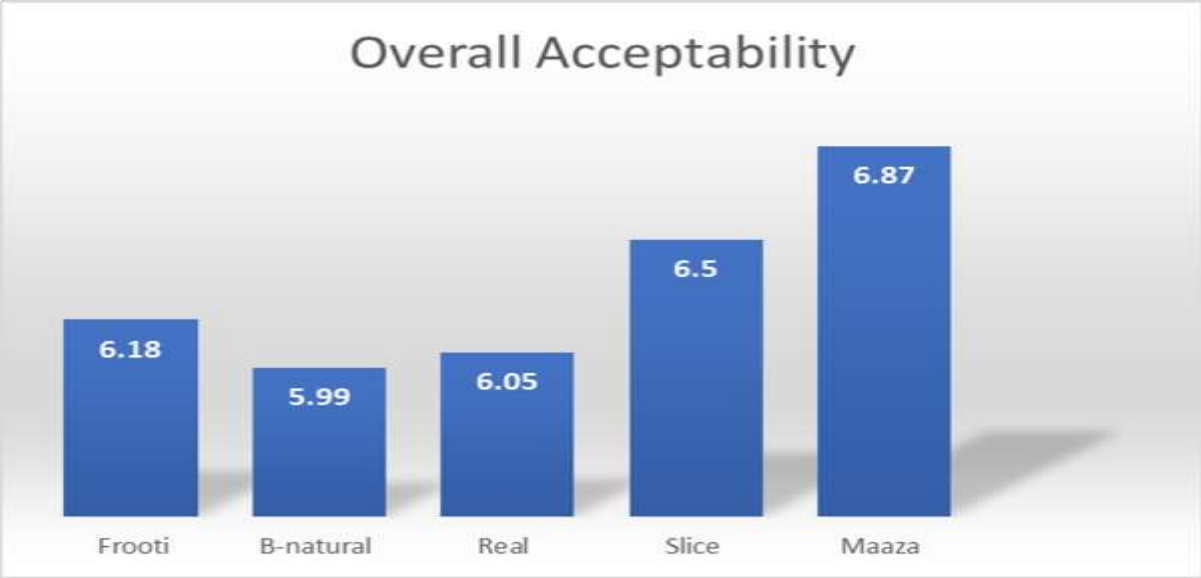
4. Taste

- Maaza (7.03) was rated best in taste.
- Real (5.67) received the lowest taste score.

5. Texture

- Maaza (6.81) and Slice (6.31) were rated highest in texture.

- B-natural (5.86) scored the lowest in texture.



Blind Sensory Evaluation: Overall Acceptability Scores of Leading Mango Drink Brands (Ages 18 -30)

Conclusion

This study aimed to understand consumer preferences and market dynamics in the Indian mango ready to serve beverage segment. Our research used a dual approach: an initial pre-questionnaire survey followed by a blind hedonic sensory evaluation of five popular mango drink brands- Maaza, Slice, Frooti, B-natural and Real. Based on the blind hedonic rating test conducted among young adults aged 18 to 30, Maaza stands out as the most preferred mango drink, followed by Slice, Frooti, Real, and B-Natural. Pre-study survey data showed a similar trend, with the majority of participants reporting that they usually purchase Maaza, followed by Slice, Real, Frooti, and B-natural.

Maaza holds a strong position in the market not just because of brand loyalty, but also because people genuinely like its taste, appealing marketing, and wide availability.

Additionally, consumer attitudes are rapidly changing as health awareness increases. There is a noticeable shift in demand toward beverages that not only taste good but also offer nutritional benefits. Young consumers are increasingly looking for mango drinks made with less sugar, higher amounts of natural fruit pulp, and fewer artificial sweeteners. This trend toward healthier, more authentic beverage options influences companies in formulating new product development and increased focus on research and development. As a result, brands focusing on natural ingredients and improved nutritional profiles are likely to strengthen their position in the market. As consumer preferences continue to change, it's important for companies to keep innovating and adapting if they want to stay relevant and successful in the market.

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