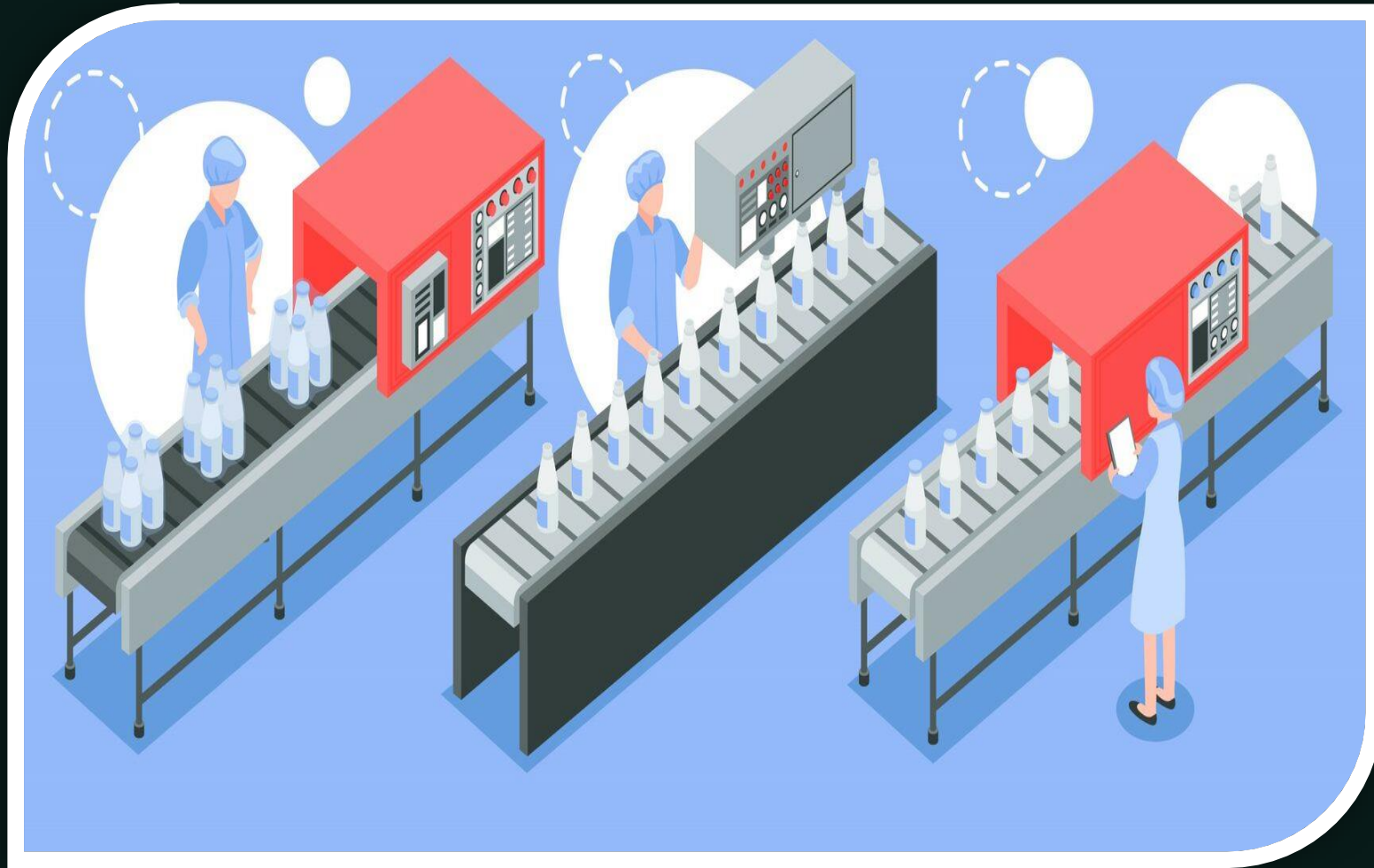# Food and Beverage Industry Survey Analysis

PRESENTED BY:

SHAMBHAVI S

Objective

To analyze survey responses from the food and beverage industry to gain insights into consumer behavior, preferences, and perceptions using Power BI interactive dashboards. The analysis will help identify key trends, understand brand perception, and explore potential areas for improvement in product offerings and marketing strategies.

Dataset Overview

Response_ID	Respondent_ID	Consume_frequency	Consume_time	Consume_reason	Heard_before	Brand_perception	General_perception	Tried_before
103191	120221	Rarely	Throughout the day	Increased energy and focus	No	Neutral	Not sure	No
103502	120532	Once a week	To stay awake during work/study	To combat fatigue	No	Neutral	Effective	No
103745	120775	Once a week	Before exercise	To boost performance	No	Neutral	Healthy	Yes
103834	120864	2-3 times a week	To stay awake during work/study	To enhance sports performance	Yes	Neutral	Healthy	No
103925	120955	Once a week	Before exercise	Other	No	Neutral	Effective	No
104030	121060	2-3 times a month	For mental alertness	Increased energy and focus	No	Neutral	Effective	No
104089	121119	2-3 times a month	Throughout the day	Increased energy and focus	Yes	Neutral	Not sure	Yes
104173	121203	Once a week	To stay awake during work/study	To boost performance	No	Neutral	Dangerous	Yes
104287	121317	Once a week	To stay awake during work/study	To combat fatigue	No	Neutral	Not sure	No
104433	121463	Rarely	Before exercise	To combat fatigue	No	Neutral	Not sure	Yes
104651	121681	Rarely	To stay awake during work/study	Increased energy and focus	No	Neutral	Not sure	Yes
104731	121761	2-3 times a week	To stay awake during work/study	Other	Yes	Neutral	Effective	Yes
104736	121766	2-3 times a week	Before exercise	Other	Yes	Neutral	Effective	No
104970	122000	Daily	To stay awake during work/study	Increased energy and focus	No	Neutral	Healthy	No

Respondent_ID	Name	Age	Gender	City_ID
120043	Kimaya Borde	19-30	Male	CT113
120059	Sana Bumb	19-30	Male	CT113
120076	Ryan Dasgupta	19-30	Male	CT113
120080	Sana Mand	19-30	Male	CT113
120090	Rasha Bhavsar	19-30	Male	CT113
120092	Baiju Sane	19-30	Male	CT113
120095	Darshit Sami	19-30	Male	CT113
120096	Advika Borah	19-30	Male	CT113
120102	Mannat Chaudry	19-30	Male	CT113
120104	Riya Sengupta	19-30	Male	CT113
120108	Anaya Das	19-30	Male	CT113
120124	Tiya Kumar	19-30	Male	CT113
120131	Emir Mann	19-30	Male	CT113
120141	Inaaya Zachariah	19-30	Male	CT113
120145	Nehmat Samra	19-30	Male	CT113
120168	Damini Taneja	19-30	Male	CT113
120169	Arnav Saha	19-30	Male	CT113
120189	Madhup Varkey	19-30	Male	CT113
120189	Shanaya Raju	19-30	Male	CT113
120193	Darshit Uppal	19-30	Male	CT113

City_ID	City	Tier
CT111	Delhi	Tier 1
CT112	Mumbai	Tier 1
CT113	Bangalore	Tier 1
CT114	Chennai	Tier 1
CT115	Kolkata	Tier 2
CT116	Hyderabad	Tier 1
CT117	Ahmedabad	Tier 2
CT118	Pune	Tier 2
CT119	Jaipur	Tier 2
CT120	Lucknow	Tier 2

There are 3 datasets include survey information with 30 columns, 10 states and 10000 Respondents in which 6038 are Male, 3455 are female and 507 are non-binary.

Create Relationships Between the Datasets

Here I have used star schema to create relationships between the datasets. First we need to Identify fact and dimension tables. Here fact_survey_responses is the fact table and dim_respondent, dim_cities are dimension tables.
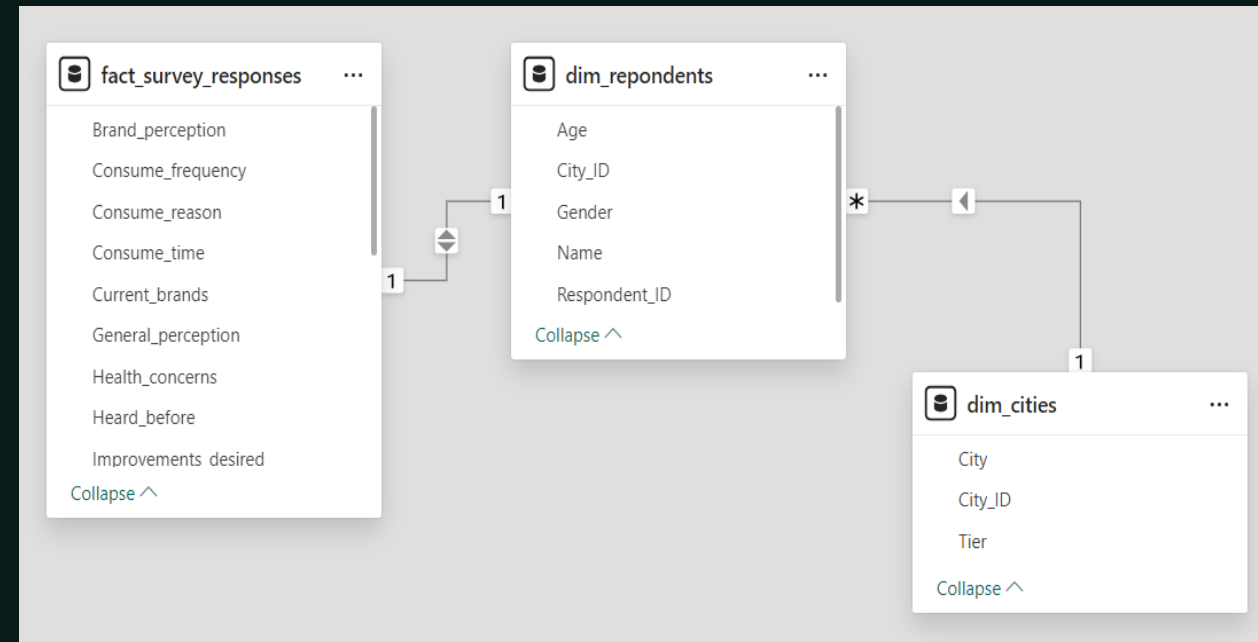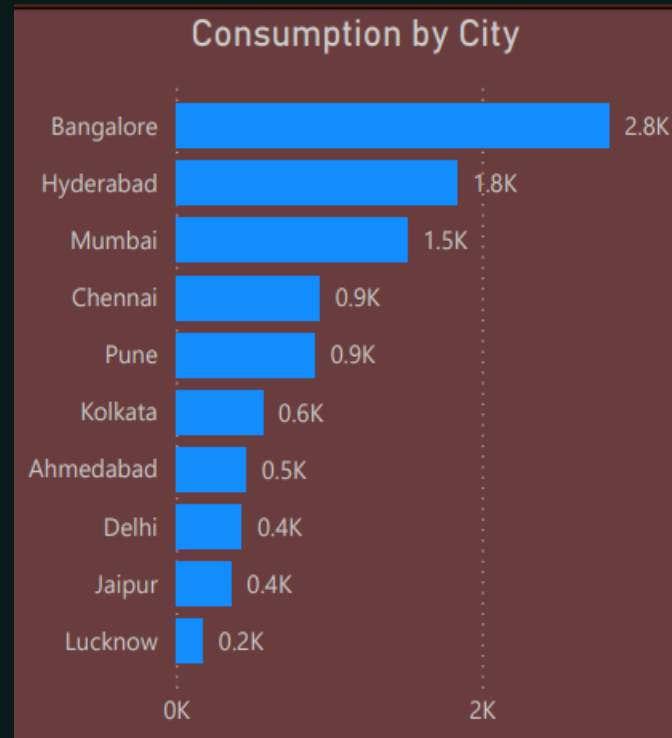
Consumer Behavior

Top 5 Product Consumers are from Bangalore, Hyderabad, Mumbai and Chennai.

Bottom 2 Consumers are from Lucknow and Jaipur .

Reasons for consuming the products is mostly to increase energy and focus, also to fight fatigue.
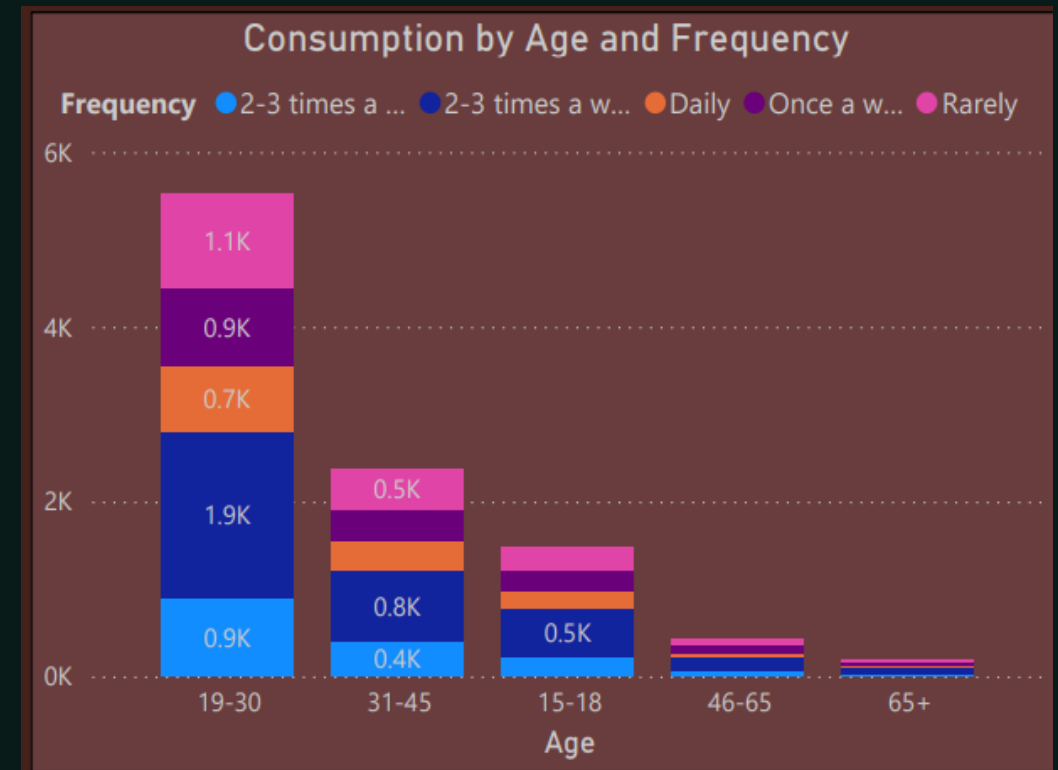
Consumption by City

City	Value
Bangalore	2.8K
Hyderabad	1.8K
Mumbai	1.5K
Chennai	0.9K
Pune	0.9K
Kolkata	0.6K
Ahmedabad	0.5K
Delhi	0.4K
Jaipur	0.4K
Lucknow	0.2K

Consume_reason	Count of Name
Increased energy and focus	3574
To combat fatigue	2428
To enhance sports performance	1604
To boost performance	1514
Other	880

Consumer Behavior

People between the age 19-30 years are the top product consumers.

Highest Frequency consumption of food and beverage products are 2-3 times a week .

Consumption by Age and Frequency

Frequency ● 2-3 times a ... ● 2-3 times a w... ● Daily ● Once a w... ● Rarely

19-30:
- 1.1K
- 0.9K
- 0.7K
- 1.9K
- 0.9K

31-45:
- 0.5K
- 0.8K
- 0.4K

15-18:
- 0.5K

Age

Consumer Behavior

Typical time when the products are consumed is to stay awake during work/study and before exercise.

Common situations in which the products are consumed are during Sports/exercise and Studying/working late.

Consume_time	Count of Respondent_ID
To stay awake during work/study	3409
Before exercise	3148
For mental alertness	1995
Throughout the day	1448

Typical_consumption_situations	Count of Respondent_ID
Studying/working late	3231
Sports/exercise	4494
Social outings/parties	1487
Other	491
Driving/commuting	297

Consumer Preferences

3.0k respondents prefer less sugar content and 2.5k respondents want more natural ingredients in products.


Preferred Improvements

- Reduced sugar content: 3.0K
- More natural ingredi...: 2.5K
- Wider range of flavors: 2.0K
- Healthi... alterna...: 1.5K
- Other: 1.0K
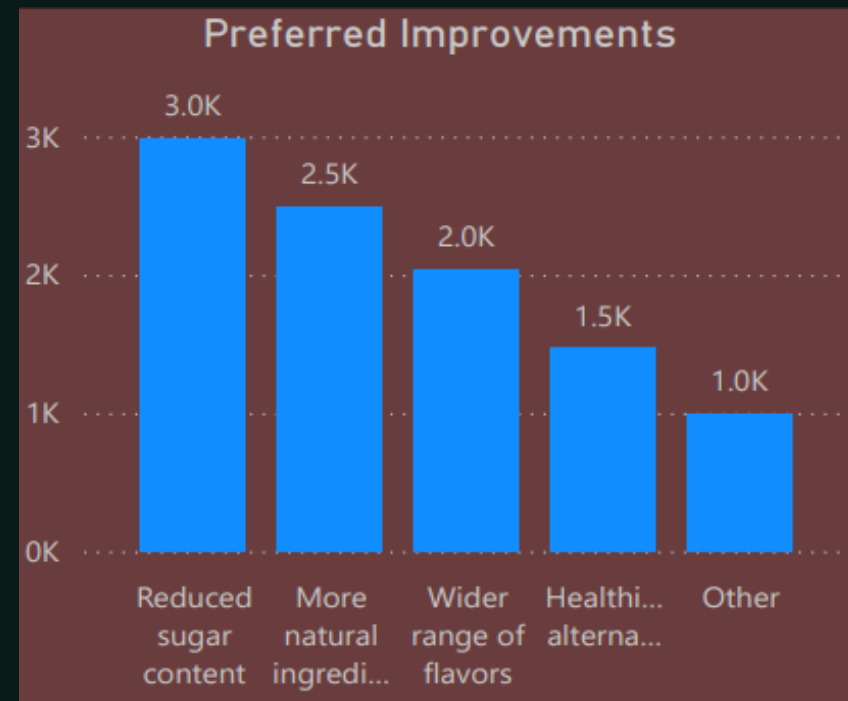
Consumer Preferences

Top 4 preferred ingredients in products are :
Caffeine - 38.96% ,
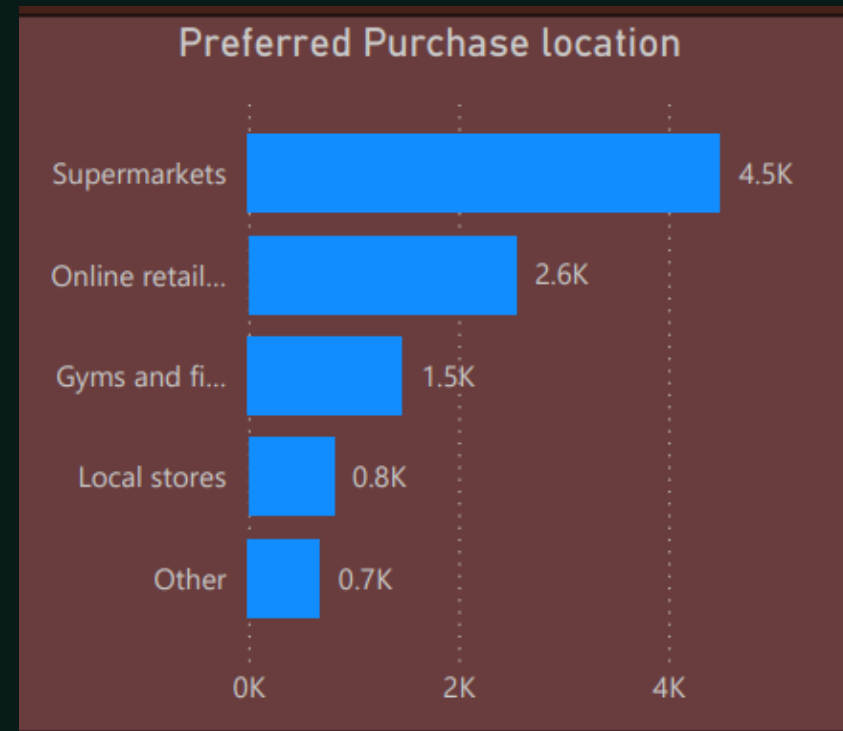Vitamins - 25.34% , Sugar – 20.17% and
Guarana – 15.53%

Preferred Ingredients

- Caffeine 38.96%
- Vitamins 25.34%
- Sugar 20.17%
- Guarana 15.53%
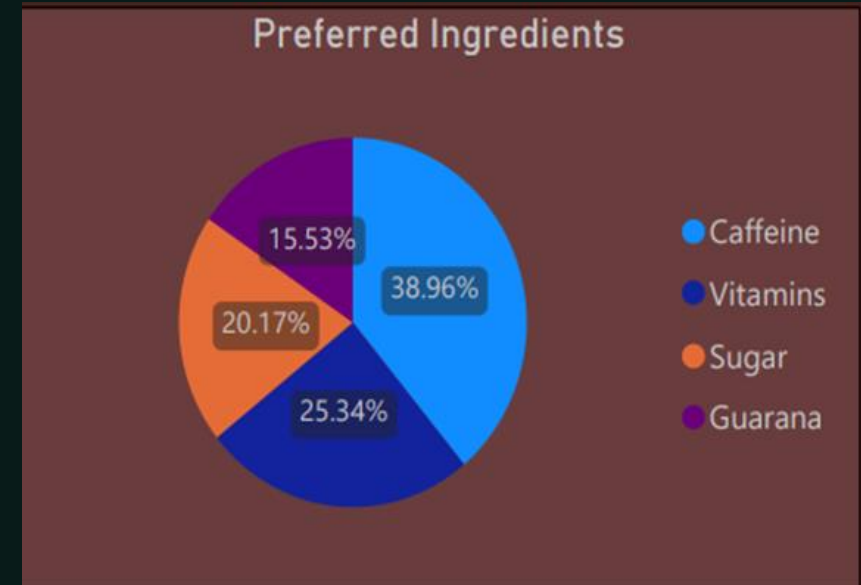
Consumer Preferences

Highest preferred price range for products are between 50-150.

Mostly respondents prefer Online ads – 4.02k and Tv commercials - 2.69k for product information.

Preferred Price range

Preferred Marketing channels
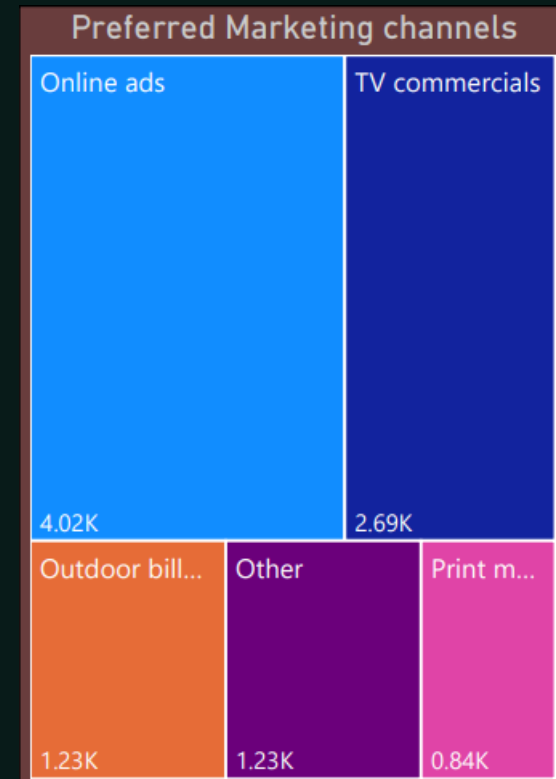
Consumer Preferences

Supermarkets and Online retail stores are typical locations where products are usually purchased.


Preferred Purchase location

Location	Value
Supermarkets	4.5K
Online retail...	2.6K
Gyms and fi...	1.5K
Local stores	0.8K
Other	0.7K

Consumer Preferences

Top reasons for choosing a specific brand are : Brand reputation, Availability and Taste/flavour.

Reasons_for_choosing_brands	Count of Respondent_ID
Brand reputation	2652
Taste/flavor preference	2011
Availability	1910
Effectiveness	1748
Other	1679

Product packaging preferences : Compact and portable cans – 3984 , Innovative bottle design – 3047 and Collectible packing – 1501.

Packaging_preference	Count of Respondent_ID
Compact and portable cans	3984
Innovative bottle design	3047
Collectible packaging	1501
Eco-friendly design	983
Other	485

Consumer Perception

Consumers Heard before

- 5.6K — No
- 4.4K — Yes
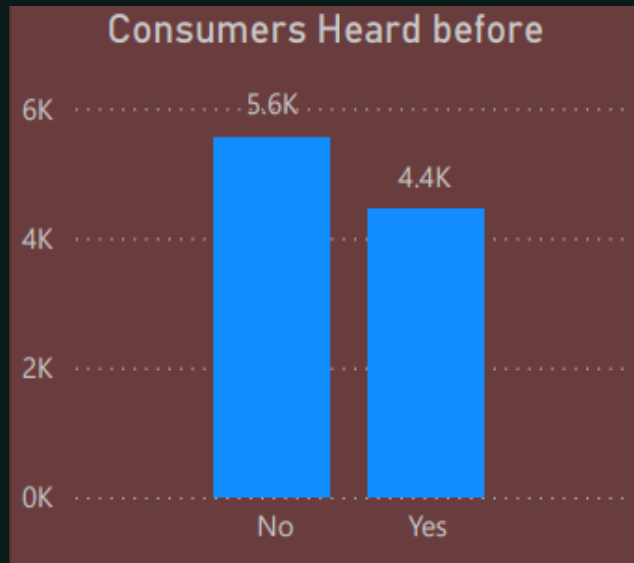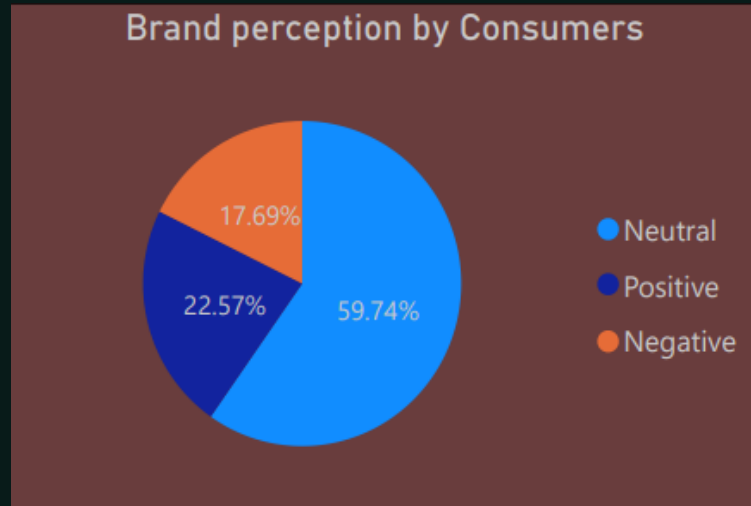
5.6k respondents never heard of the product before while 4.4k respondents heard of the product before.
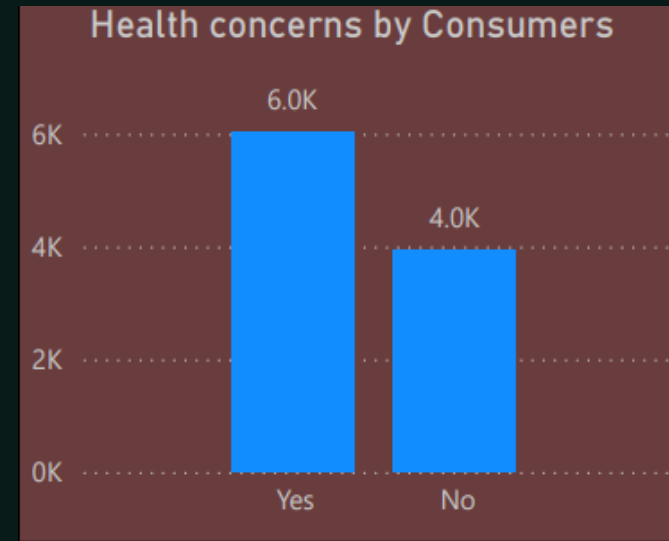

Consumers who Tried before

- No — 5.1K
- Yes — 4.9K
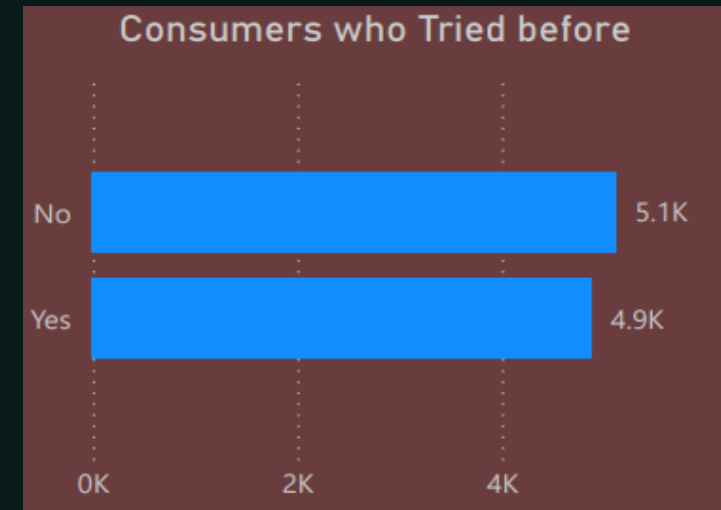
5.1k respondents never tried the product before while 4.9k respondents tried the product before.

Consumer Perception

Brand perception by Consumers
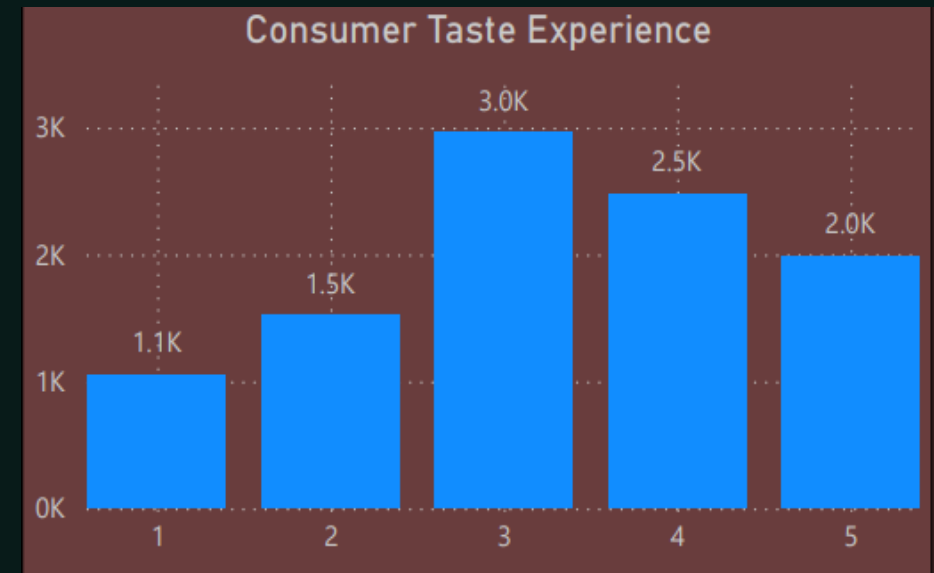

Health concerns by Consumers

Respondent's perception of the brand:
Neutral – 59.74% , Positive – 22.57%
and Negative – 17.69%.

Health concerns related to product:
Yes – 6.0k and
No – 4.0k .

Consumer Perception

Top ratings of respondent's taste experience :
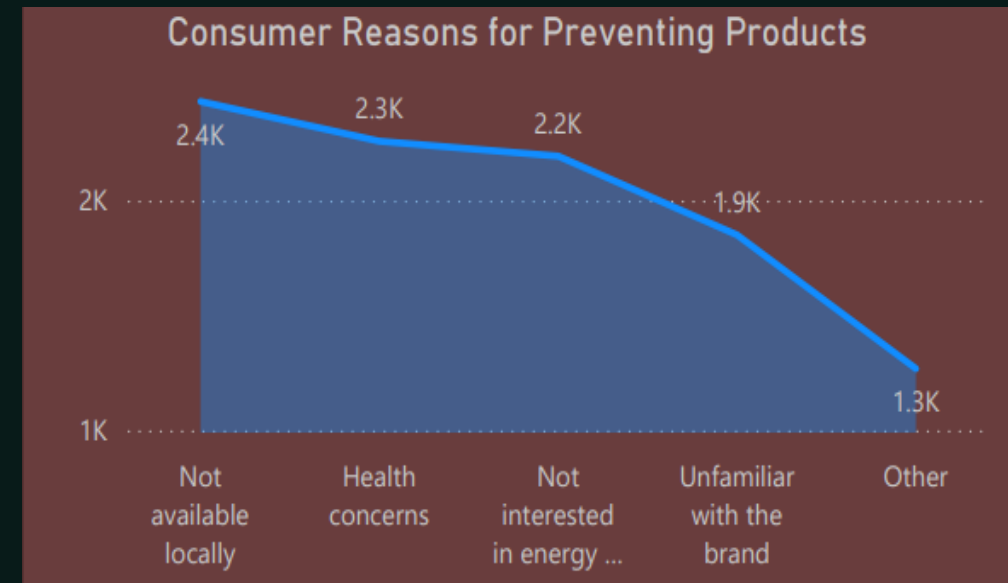3.0k – 3 rating , 2.5k – 4 rating   and
2.0k – 5 rating.

Consumer Taste Experience

Rating	Value
1	1.1K
2	1.5K
3	3.0K
4	2.5K
5	2.0K

Consumer Perception

Reasons preventing respondents from trying the product :
Not available locally – 2.4k , Health concerns – 2.3k and Not interested in energy drink – 2.2k.

Consumer Reasons for Preventing Products

Recommendations

Product offerings: Add more natural ingredients to the product, widen the range of flavors and reduce the quantity of sugar.

Product advertising: More advertising should be done through online ads and Tv commercial.

Product availability and price: Products should be available in local supermarkets and also online retail stores with price range between 50-150.

Quality: Build better brand reputation by maintaining the quality of the products.

Dashboards

Food and Beverage Industry Survey Dashboard
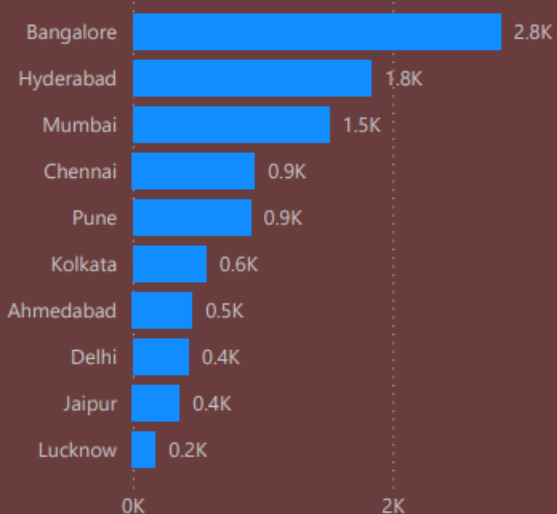
Total
10.00K

Consumer Behavior | Consumer Preferences | Consumer Perception

Consumption by City

City	Value
Bangalore	2.8K
Hyderabad	1.8K
Mumbai	1.5K
Chennai	0.9K
Pune	0.9K
Kolkata	0.6K
Ahmedabad	0.5K
Delhi	0.4K
Jaipur	0.4K
Lucknow	0.2K

Consumption by Age and Frequency

Frequency: ● 2-3 times a ... ● 2-3 times a w... ● Daily ● Once a w... ● Rarely

Age	Values
19-30	0.9K, 1.9K, 0.7K, 0.9K, 1.1K
31-45	0.4K, 0.8K, 0.5K
15-18	0.5K
46-65	
65+	
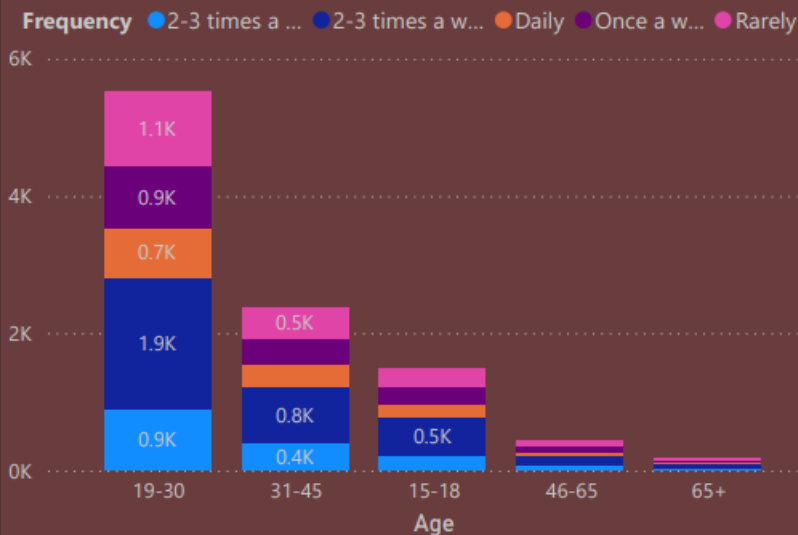
Brands Consumed Currently

Brand	Value
Cola-Coka	2.5K
Bepsi	2.1K
Gangster	1.9K
Blue Bull	1.1K
CodeX	1.0K
Sky 9	1.0K
Others	0.5K

Consume_reason	Count of Name
Increased energy and focus	3574
To combat fatigue	2428
To enhance sports performance	1604
To boost performance	1514
Other	880

Consume_time	Count of Respondent_ID
To stay awake during work/study	3409
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Studying/working late	3231
Sports/exercise	4494
Social outings/parties	1487
Other	491
Driving/commuting	297

Food and Beverage Industry Survey Dashboard

Total
10.00K

Gender
- ☐ Female
- ☐ Male
- ☐ Non-binary

Consumer Behavior | **Consumer Preferences** | Consumer Perception
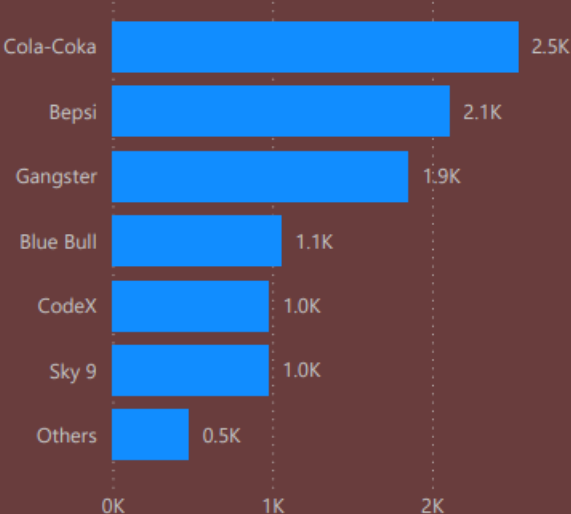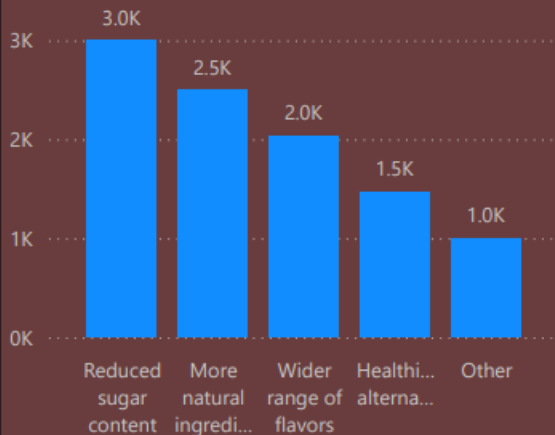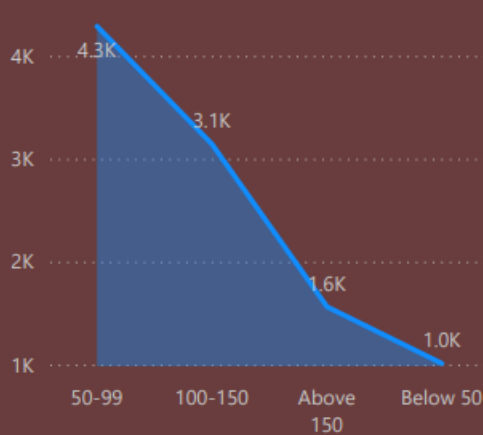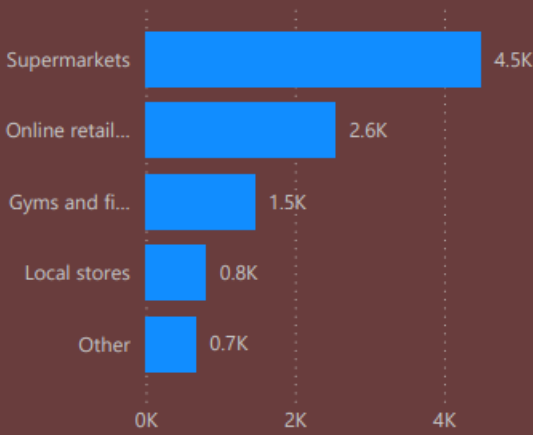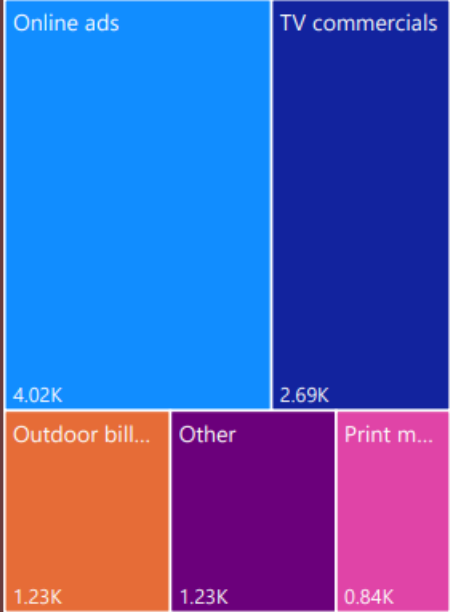
Preferred Improvements

Category	Value
Reduced sugar content	3.0K
More natural ingredi...	2.5K
Wider range of flavors	2.0K
Healthi... alterna...	1.5K
Other	1.0K

Preferred Price range

Range	Value
50-99	4.3K
100-150	3.1K
Above 150	1.6K
Below 50	1.0K

Preferred Purchase location

Location	Value
Supermarkets	4.5K
Online retail...	2.6K
Gyms and fi...	1.5K
Local stores	0.8K
Other	0.7K

Preferred Marketing channels

Channel	Value
Online ads	4.02K
TV commercials	2.69K
Outdoor bill...	1.23K
Other	1.23K
Print m...	0.84K

Preferred Ingredients

Ingredient	Percentage
Caffeine	38.96%
Vitamins	25.34%
Sugar	20.17%
Guarana	15.53%
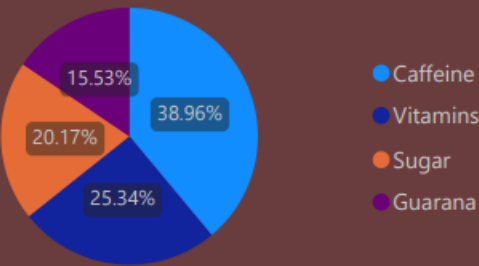
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Collectible packaging	1501
Eco-friendly design	983
Other	485

Food and Beverage Industry Survey Dashboard

Total

10.00K

Gender
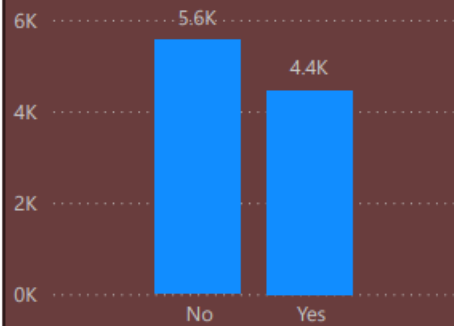- ☐ Female
- ☐ Male
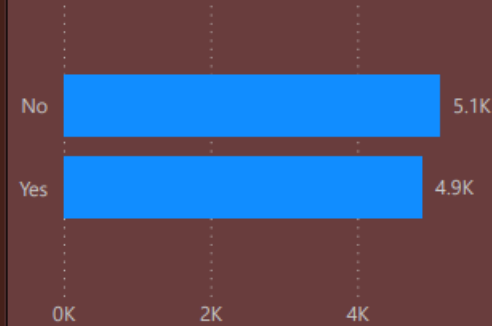- ☐ Non-binary

Consumer Behavior | Consumer Preferences | **Consumer Perception**
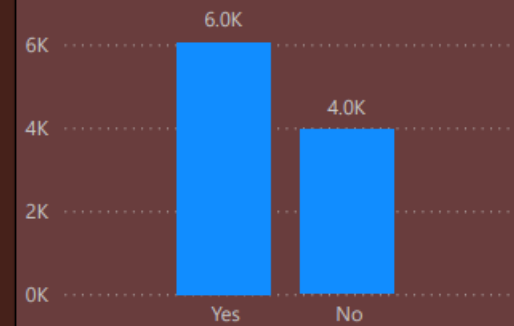
Consumers Heard before

- No: 5.6K
- Yes: 4.4K

Brand perception by Consumers

- Neutral: 59.74%
- Positive: 22.57%
- Negative: 17.69%

Consumers who Tried before

- No: 5.1K
- Yes: 4.9K

Health concerns by Consumers

- Yes: 6.0K
- No: 4.0K

Consumer Taste Experience

- 1: 1.1K
- 2: 1.5K
- 3: 3.0K
- 4: 2.5K
- 5: 2.0K

Consumer Reasons for Preventing Products

- Not available locally: 2.4K
- Health concerns: 2.3K
- Not interested in energy ...: 2.2K
- Unfamiliar with the brand: 1.9K
- Other: 1.3K
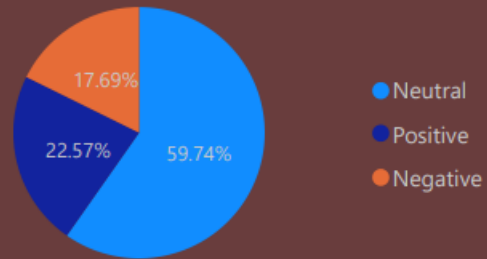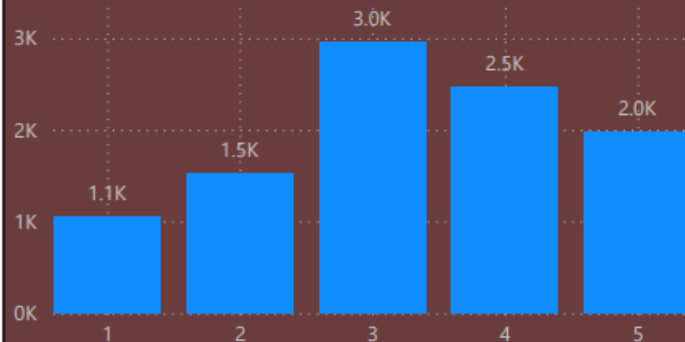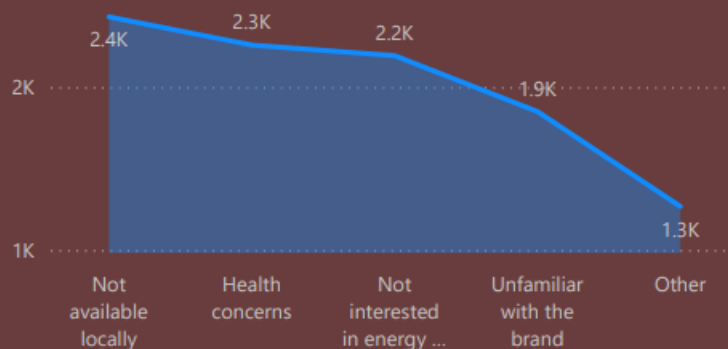
General Perception of Consumers

- Effective: 29.09%
- Not sure: 26.1%
- Healthy: 22.43%
- Dangerous: 22.38%

Thank you