ANALYSIS OF FOOD AND BEVERAGE INDUSTRY SURVEY DATA USING POWER BI

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INTRODUCTION

The objective of this Power BI project is to analyse survey responses from the food and beverage industry to gain insights into consumer behaviour, preferences, and perceptions. The analysis will help identify key trends, understand brand perception, and explore potential areas for improvement in product offerings and marketing strategies.

DATASETS

Fact Table: fact_survey_responses

- Response_ID :   Unique identifier for each survey response.
- Respondent_ID: Unique identifier for each respondent.
- Consume_frequency :   Frequency of consumption of food and beverage products.
- Consume_time :   Typical time when the products are consumed.
- Consume_reason :   Reasons for consuming the products.
- Heard_before :   Whether the respondent has heard of the product before.
- Brand_perception :   Respondent's perception of the brand.
- General_perception :   Overall perception of the food and beverage industry.
- Tried_before :   Whether the respondent has tried the product before.
- Taste_experience :   Respondent's experience with the taste of the product.
- Reasons_preventing_trying :   Reasons preventing respondents from trying the product.

DATASETS

Fact Table: fact_survey_responses

- Current_brands :   Brands currently consumed by the respondent
- Reasons_for_choosing_brands :   Reasons for choosing specific brands.
- Improvements_desired :   Improvements desired in products.
- Ingredients_expected :   Expected ingredients in products.
- Health_concerns :   Health concerns related to products.
- Interest_in_natural_or_organic :   Interest in natural or organic products.
- Marketing_channels :   Preferred marketing channels for product information.
- Packaging_preference :   Preferences for product packaging.
- Limited_edition_packaging :   Interest in limited edition packaging.
- Price_range :   Preferred price range for products.
- Purchase_location :   Typical locations where products are purchased.
- Typical_consumption_situations : Common situations in which products are consumed

DATASETS

Dimension Table: dim_respondent

- **Respondent_ID :** Unique identifier for each respondent.
- **Name :** Name of the respondent.
- **Age :** Age of the respondent.
- **Gender :** Gender of the respondent.
- **City_ID :** Identifier linking the respondent to a city

Dimension Table: dim_cities

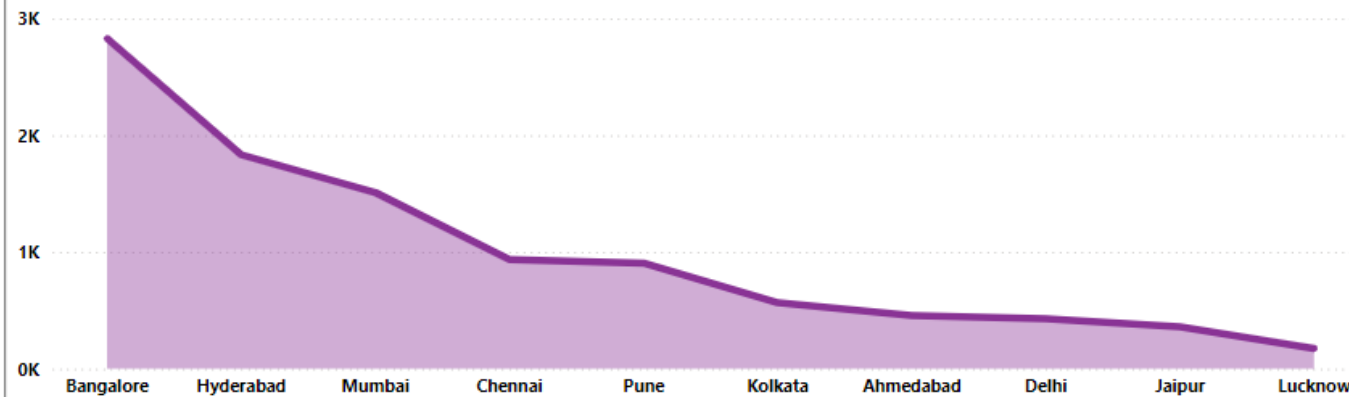City_ID : Unique identifier for each city.

City : Name of the city.

Tier : Tier classification of the city (e.g., Tier 1, Tier 2).

DASHBOARD

Analysis of Food and Beverage Industry
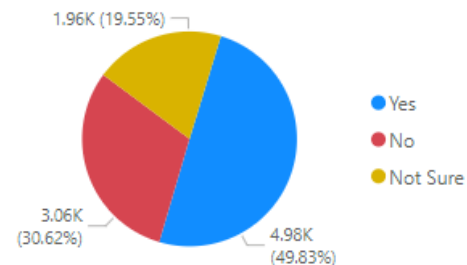
Number of Consumers per city
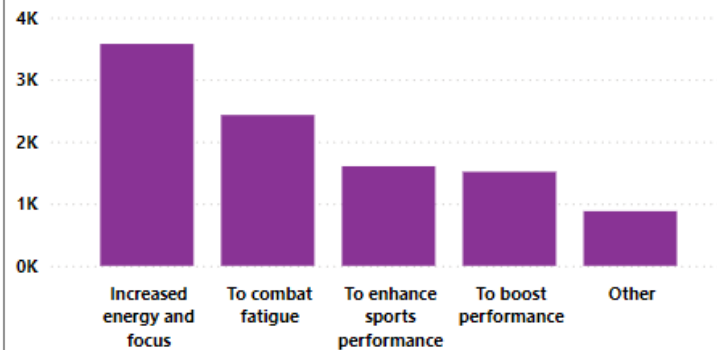
Select Gender

All
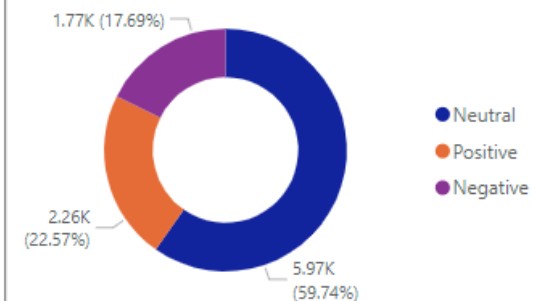
Select Age

All

10000
Total no. of Respondents

Interest in Natural or Organic Ingredients

1.96K (19.55%)
3.06K (30.62%)
4.98K (49.83%)

- Yes
- No
- Not Sure

Preferred Consumption Reason

Increased energy and focus | To combat fatigue | To enhance sports performance | To boost performance | Other

Brand Perception

1.77K (17.69%)
2.26K (22.57%)
5.97K (59.74%)

- Neutral
- Positive
- Negative

DASHBOARD

Analysis of Food and Beverage Industry

Market share of different manufacturers

100%

Cola-Coka	2.54K
Bepsi	2.11K
Gangster	1.85K
Blue Bull	1.06K
CodeX	0.98K
Sky 9	0.98K
Others	0.48K

18.9%

Interest in limited edition packaging

2.03K (20.31%)
4.02K (40.23...)
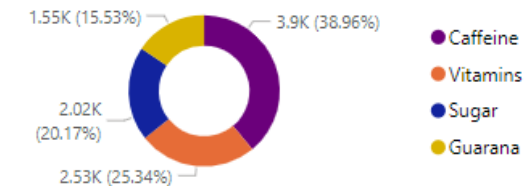3.95K (39.46%)

- No
- Yes
- Not Sure
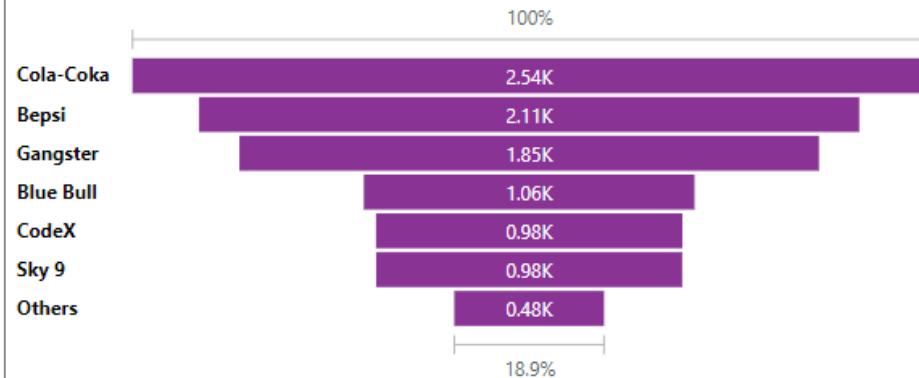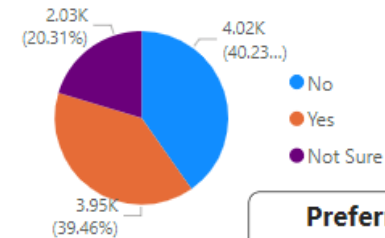
Select Gender

All

Select Age

All

Preferred Ingredient by Respondents

1.55K (15.53%)
3.9K (38.96%)
2.02K (20.17%)
2.53K (25.34%)

- Caffeine
- Vitamins
- Sugar
- Guarana

Improvements desired

- Reduced sugar content
- Wider ran...
- Healthi...
- More natural ingredients
- Other

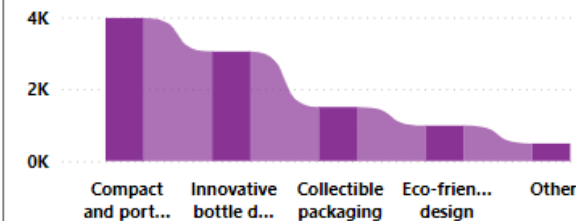### Purchase Location Analysis

Supermarkets	
Online retailers	
Gyms and fitne...	
Local stores	
Other	

0K   2K   4K
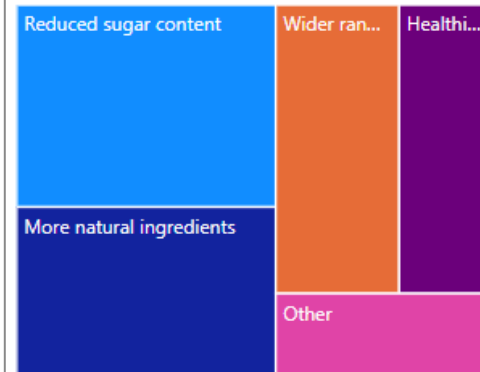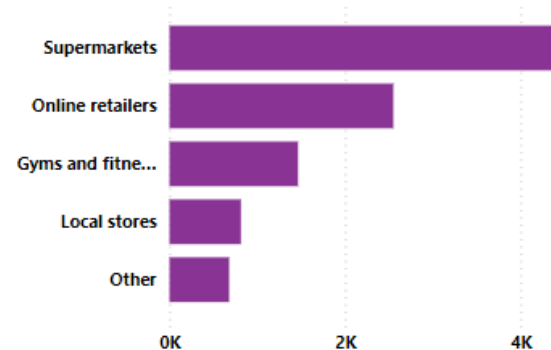
Preferred Packaging by Respondents

4K
2K
0K

Compact and port... | Innovative bottle d... | Collectible packaging | Eco-frien... design | Other

HIGHEST MARKET SHARE

Market share of different manufacturers

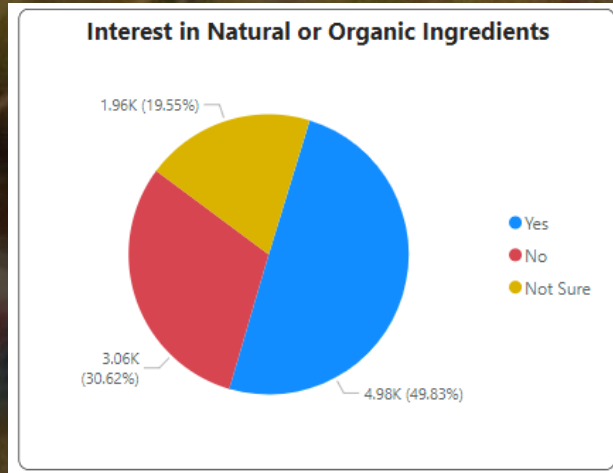|		100%
Cola-Coka	2.54K	
Bepsi	2.11K	
Gangster	1.85K	
Blue Bull	1.06K	
CodeX	0.98K	
Sky 9	0.98K	
Others	0.48K	
	18.9%	
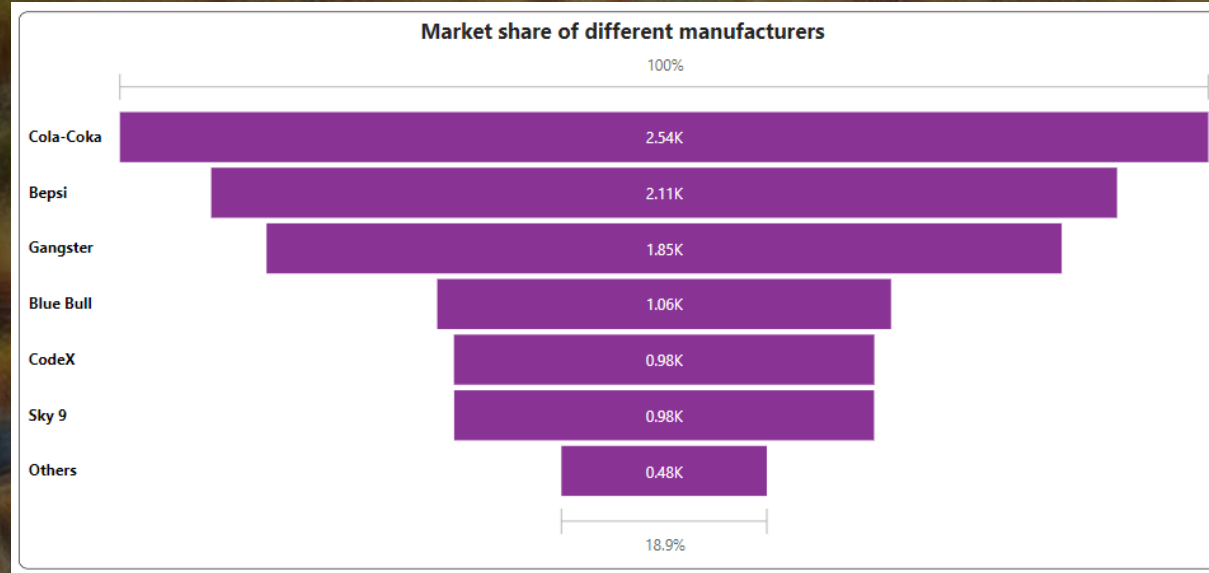
The Funnel chart shows Cola-Coka , Bepsi have highest share in the market when compared with other manufactures. Cola-Coka and Bepsi has 2540 users and 2110 users respectively. This clearly tells that most of the people prefer Cola-Coka and Bepsi as their soft drink.

CONSUMERS PER CITY


Number of Consumers per city
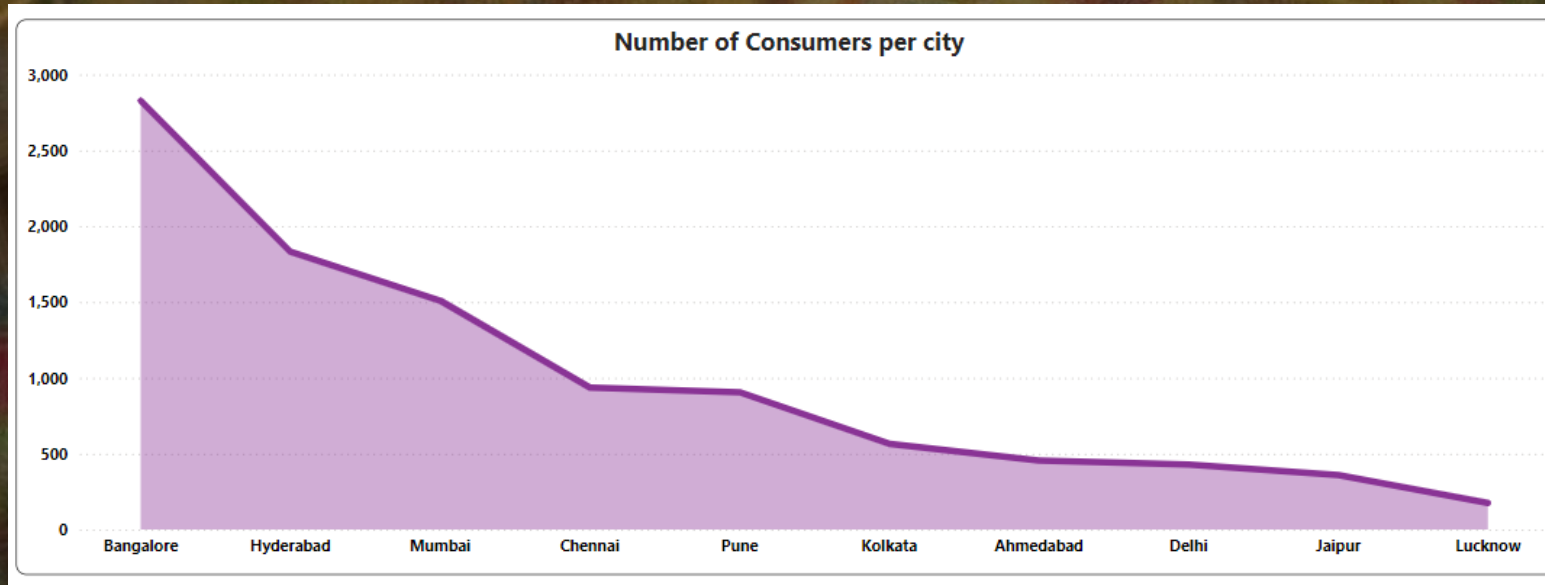
This Visualization shows that Bangalore and Hyderabad highest number of consumers and Jaipur and Lucknow has lowest number. It clearly tells us we should improve our business in Jaipur, Lucknow, Delhi with planned strategies so that we can have similar market shares in each and every city.

PIE CHART

Interest in Natural or Organic Ingredients

1.96K (19.55%)
3.06K (30.62%)
4.98K (49.83%)

- Yes
- No
- Not Sure

The pie chart shows most of the consumers prefer natural or organic ingredients in their soft drink. We can improve our business by including these natural ingredients and keeping the same taste.

The pie chart shows almost some people have interest in limited edition packaging and some people don't. So we should produce limited edition packaging for a short period of time in a finite amount.

Interest in limited edition packaging

2.03K (20.31%)
4.02K (40.23%)
3.95K (39.46%)

- No
- Yes
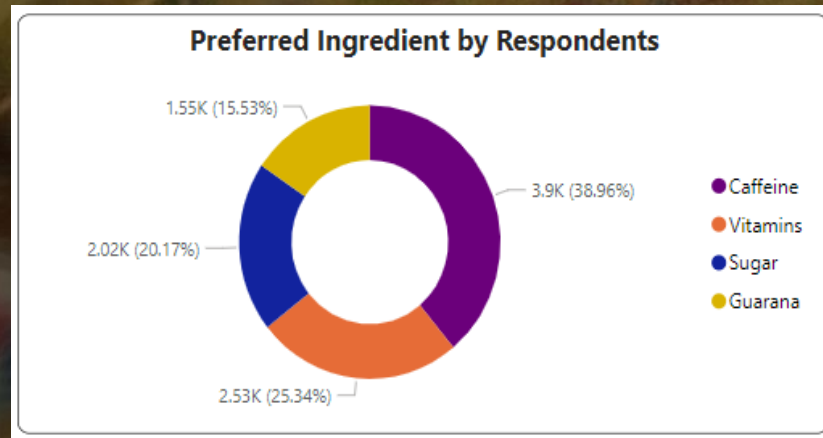- Not Sure

PURCHASE LOCATION ANALYSIS
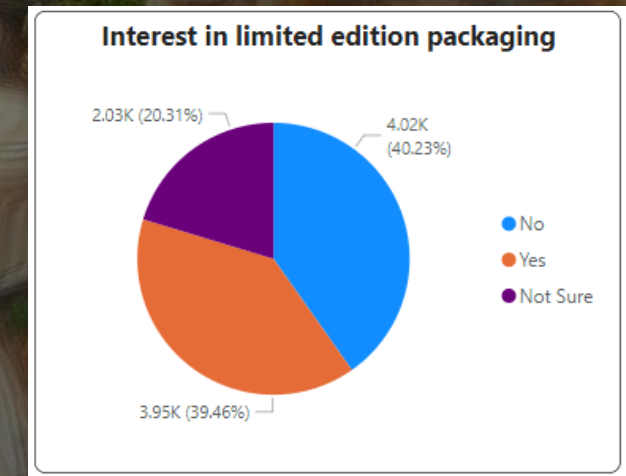

Purchase Location Analysis
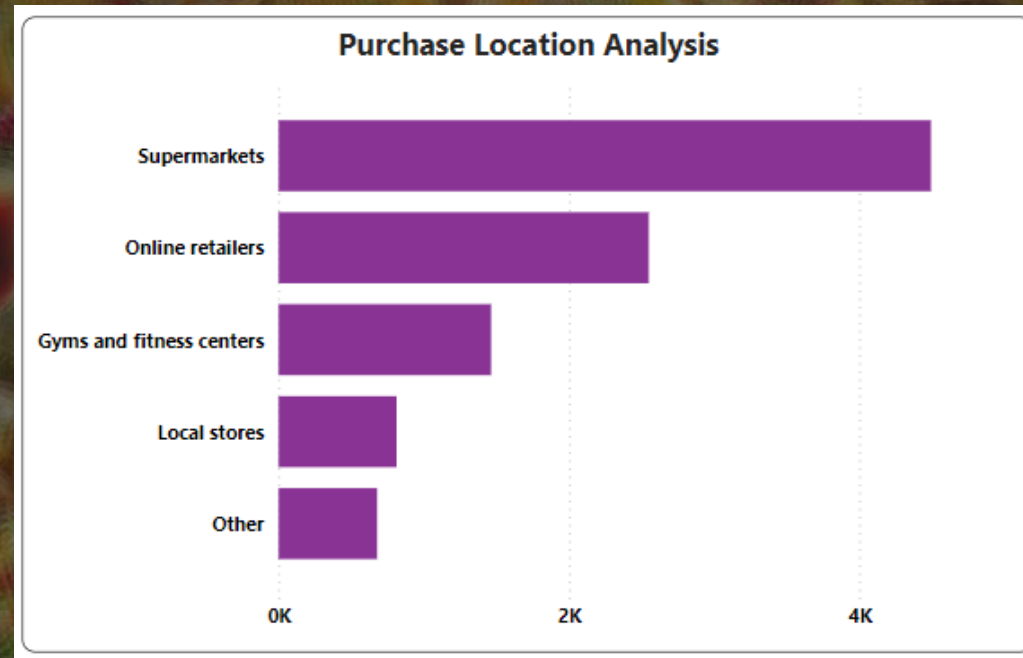
The stacked bar chart shows that most of the consumers purchase soft drinks from Supermarkets followed by Online retailers. This makes us to understand that we should increase our supply to the supermarkets according to the demand of the product, so that our sales will be increased and the product will be available for consumers

DONUT CHART

Preferred Ingredient by Respondents

1.55K (15.53%)
3.9K (38.96%)
2.02K (20.17%)
2.53K (25.34%)

- Caffeine
- Vitamins
- Sugar
- Guarana

The pie chart shows most of the consumers prefer Caffeine as their ingredient in their soft drink followed by Vitamins. Guarana ingredient is less preferred so we should concentrate on Caffeine, Vitamins as the preferred ingredient.

The donut chart shows majority of people hold neutral perception on the brand. While 22.5% expressing a positive perception as well. This tells us to improve our business so that we can have a more percentage of positive perception on our brand.

Brand Perception

1.77K (17.69%)
2.26K (22.57%)
5.97K (59.74%)

- Neutral
- Positive
- Negative
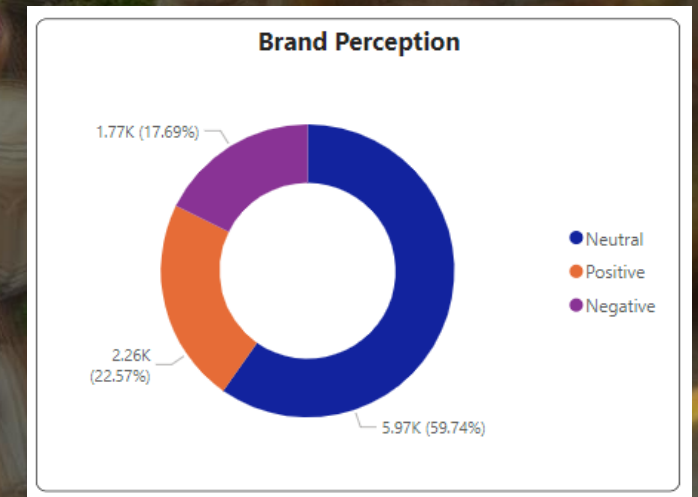
CONCLUSION

➢ **There are total of 10000 consumers including male, female and non binary.**

➢ **Cola-Coka company has highest market share followed by Bepsi and gangster, this tells that many people prefer Cola-coka and Bepsi.**

➢ **Bangalore and Hyderabad Cities have more number of consumers and Lucknow, Jaipur has the lowest. So we should concentrate on these cities in order to increase our market shares.**

➢ **Some people doesn't prefer limited edition packaging and some people does. So we should manufacture the products according to the people interests.**

➢ **We have Gender slicer and Age slicer in our dashboard, so that we can derive deeper insights and observe the market trends from our visualizations.**

Thank you