

October 2023

REPORT ON LEVERAGING DATA TO IMPROVE IN PUNJAB, PAKISTAN

INTRODUCTION

The purpose of this report is to analyze the CodeX Beverage Company data from various locations and propose data-driven initiatives to launch itself in India. As a junior data analyst working with an international Beverage company, I have been tasked with conducting a marketing feasibility analysis and justifying the newly launched 10 products in different cities of India. The ultimate goal is to leverage technology to bridge customer gaps, ensure equal opportunities for all customers, and enhance their brand value and customers.

DATA SOURCE AND CLEANING

The dataset used for this analysis contains information on products of CodeX in India. It includes essential columns.

I have given 3 CSV files:

1. **dim_respondents**
2. **dim_cities**
3. **fact_survey_responses**

Column Description for dim_respondents:

Respondent_ID: This column represents the unique identifier assigned to each respondent in the survey.

Name: This column represents the name of the respondent who participated in the survey.

Age_Group: This column represents the categorized age group of the respondent.
Age groups (15-18, 19-30, 31-45,46-65,65+)

Gender: This column represents the gender of the respondent. (Male, Female, Non-binary)

City_ID: This column represents the ID of the city where the respondent is located.

Column Description for dim_cities:

City_ID: This column represents the ID of the city.

City: This column represents name of the city where the respondent is located.
("Delhi", "Mumbai", "Bangalore", "Chennai", "Kolkata", "Hyderabad",
"Ahmedabad", "Pune", "Jaipur", "Lucknow")

Tier: This column represents the tier category of the city

Column Description for fact_survey_responses:

Response_ID: This column represents the unique identifier assigned to each response in the survey.

Respondent_ID: This column represents the unique identifier assigned to each respondent who provided the survey response.

Consume_frequency: This column represents the response received for the below question.

How often do you consume energy drinks?

Daily	2-3 times a week	Once a week	2-3 times a
month	Rarely		

Consume_time: This column represents the response received for the below question.

When do you typically consume energy drinks?

Before exercise	To stay awake during work/study
For mental alertness	Throughout the day

Consume_reason: This column represents the response received for the below question.

What are the main reasons for consuming energy drinks?

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

Heard_before: This column represents the response received for the below question.

Have you heard of our energy drink before today?

Yes	No
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Brand_perception: This column represents the response received for the below question.

What do you think of the brand name/logo/design?

Positive	Neutral	Negative
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General_perception: This column represents the response received for the below question.

What is your perception of energy drinks in general?

Healthy	Effective	Dangerous	Not sure
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Tried_before: This column represents the response received for the below question.

Have you ever tried our energy drink before?

Yes	No
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Taste_experience: This column represents the response received for the below question.

If yes, how would you rate the taste, flavor, and overall experience?

1 (Poor)	2 (Below average)	3 (Average)	4 (Good)
5 (Excellent)			

Reasons_preventing_trying: This column represents the response received for the below question.

If no, what are the main reasons preventing you from trying it?

Not available locally Not interested in energy drinks Unfamiliar with the brand
Health concerns Other

Current_brands: This column represents the response received for the below question.

Which energy drink brands do you currently consume or prefer?

CodeX Cola-Coka Bepsi Gangster Blue Bull Sky 9
Others

Reasons_for_choosing_brands: This column represents the response received for the below question.

What are the reasons for choosing those brands over others?

Brand reputation Taste/flavor preference Effectiveness Availability
Other

Improvements_desired: This column represents the response received for the below question.

What improvements would you like to see in energy drinks currently available in the market?

Reduced sugar content More natural ingredients Wider range of flavors
Healthier alternatives Other

Ingredients_expected: This column represents the response received for the below question.

What ingredients do you expect in an energy drink?

Caffeine Vitamins Sugar Guarana

Health_concerns: This column represents the response received for the below question.

Are you concerned about the health impacts of energy drinks?

Yes No

Interest_in_natural_or_organic:

Would you be interested in an energy drink with natural or organic ingredients?

Yes No Not Sure

Marketing_channels: This column represents the response received for the below question.

Which marketing channels or platforms do you often come across energy drink advertisements?

TV commercials Online ads Print media Outdoor billboard Other

Packaging_preference: This column represents the response received for the below question.

What type of packaging or bottle design would attract you to purchase an energy drink?

Compact and portable cans Innovative bottle design Eco-friendly design
Collectible packaging Other

Limited_edition_packaging: This column represents the response received for the below question.

Would you be more likely to buy an energy drink with limited edition packaging?

Yes No Not sure

Price_range: This column represents the response received for the below question.

What price range do you consider reasonable for an energy drink?

Below 50 50-99 100-150 Above 150

Purchase_location: This column represents the response received for the below question.

Where do you typically purchase energy drinks?

Local stores Supermarkets Online retailers Gyms and fitness centers Other

Typical_consumption_situations: This column represents the response received for the below question.

In which situations or activities do you typically consume energy drinks?

Sports/exercise Studying/working late Social outings/parties
Driving/commuting Other

DATASET ANALYSIS AND KEY INSIGHTS

Total Number of customers in CodeX 10,000

No. of customers 10,000

total customers 6038 of them are male, 3455 are female and 507 are non-binary.

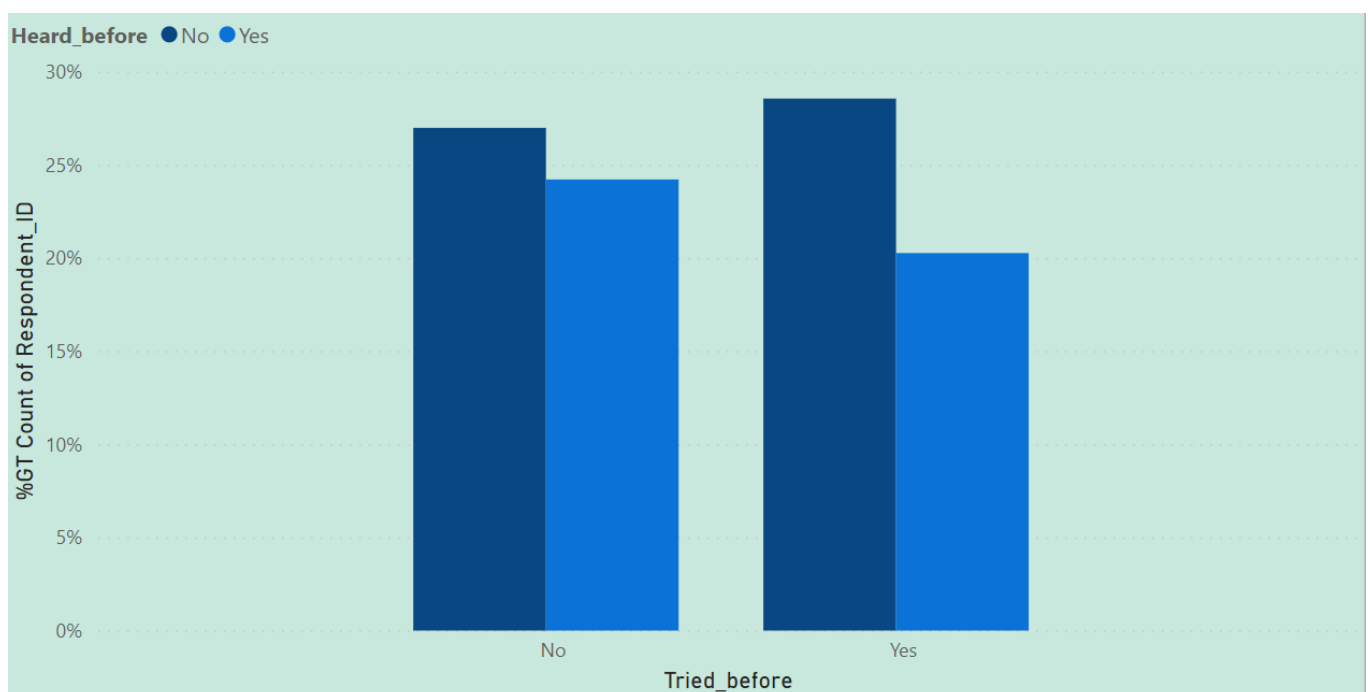
City with the highest no. of Customers is Bangalore with 2868 Customers.

City with the lowest no. of Customers is Lucknow with 175 Customers.

No. of Customers

City with highest Customers Bangalore in ***Male: 1784***

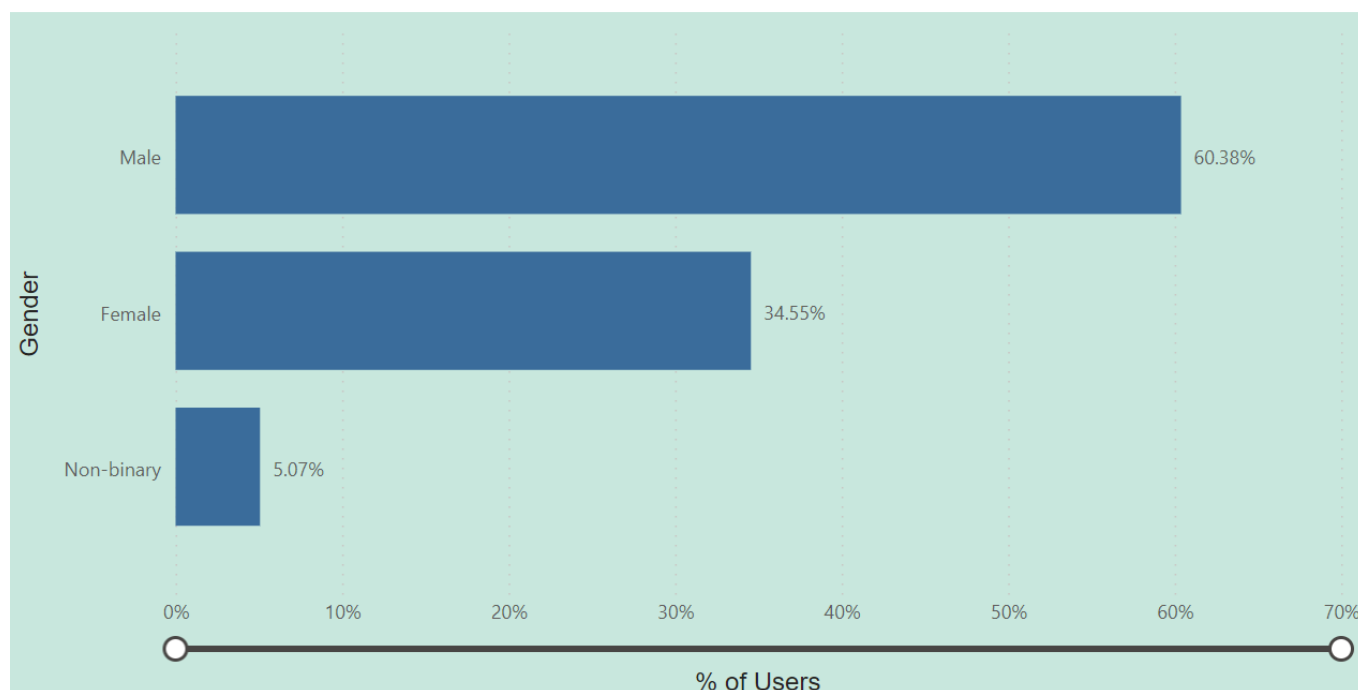
In Data Cleaning first of all I have found something unusual. Some of the customers are not heard about our brand but they have tasted it already. So, when I want to remove them as error. I got to know that it is the almost 28% of my whole Data. It is not possible for as a Data Analyst to remove such amount of Data. It directly effects my outcomes. So, I considered the mistake of Data Collector or I assume it a scenario in which a person came from a city where this brand is not present. So automatically he/she didn't know about it. But when he came to city to meet a friend where this brand is present so they taste it there. At that moment Data is collected so he/she told the data collector he/she are not aware of that brand but already tasted it recently.



After the other cleaning steps of Data, then I move on to answers the asked questions.

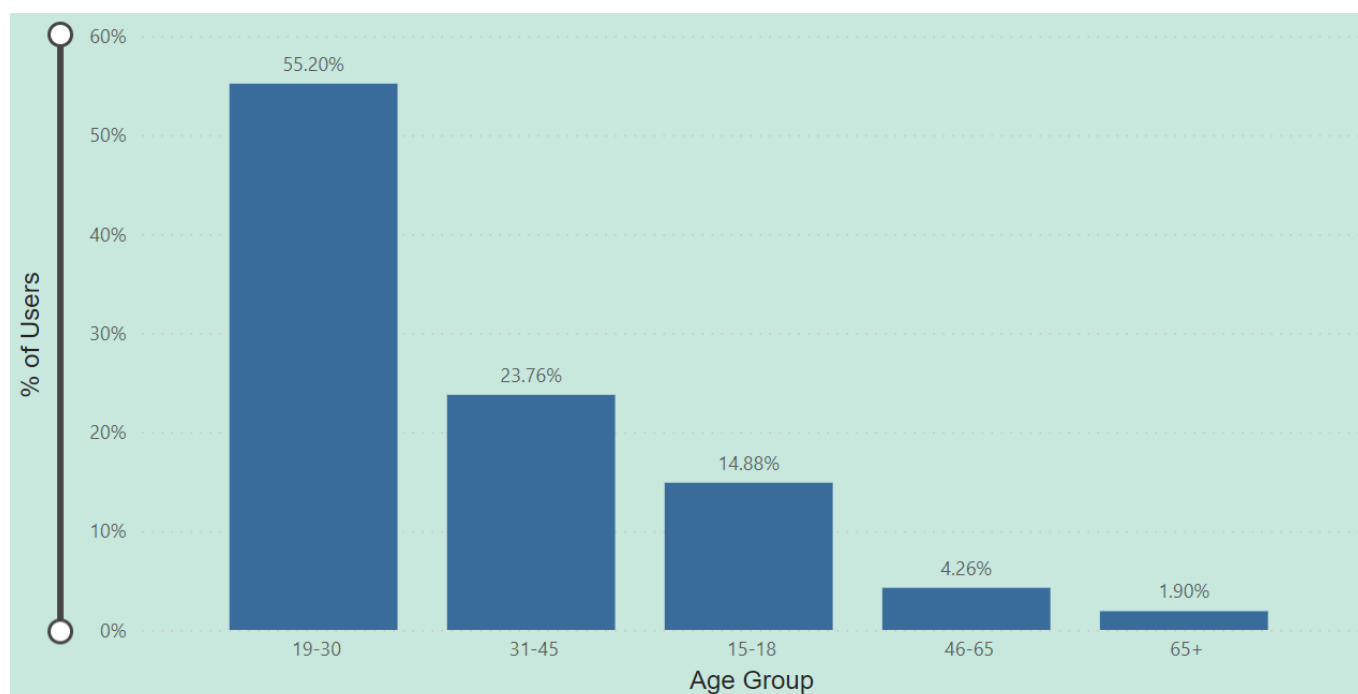
1. Demographic Insights (examples)

a. Who prefers energy drink more? (male/female/non-binary?)



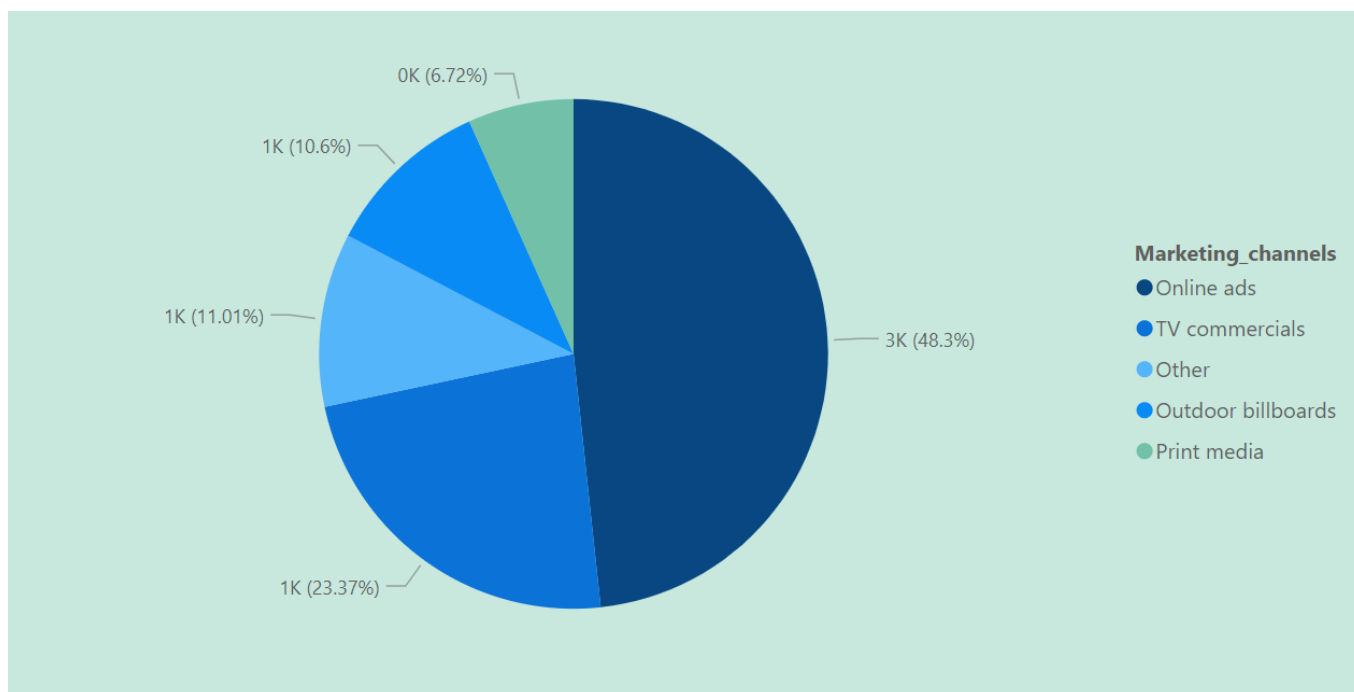
So, as clearly Graph shows that male likes your energy than drinks as compare to others. Almost 60% of the whole data are males.

b. Which age group prefers energy drinks more?



Age group of between 19-30 are most likely the energy drinks.

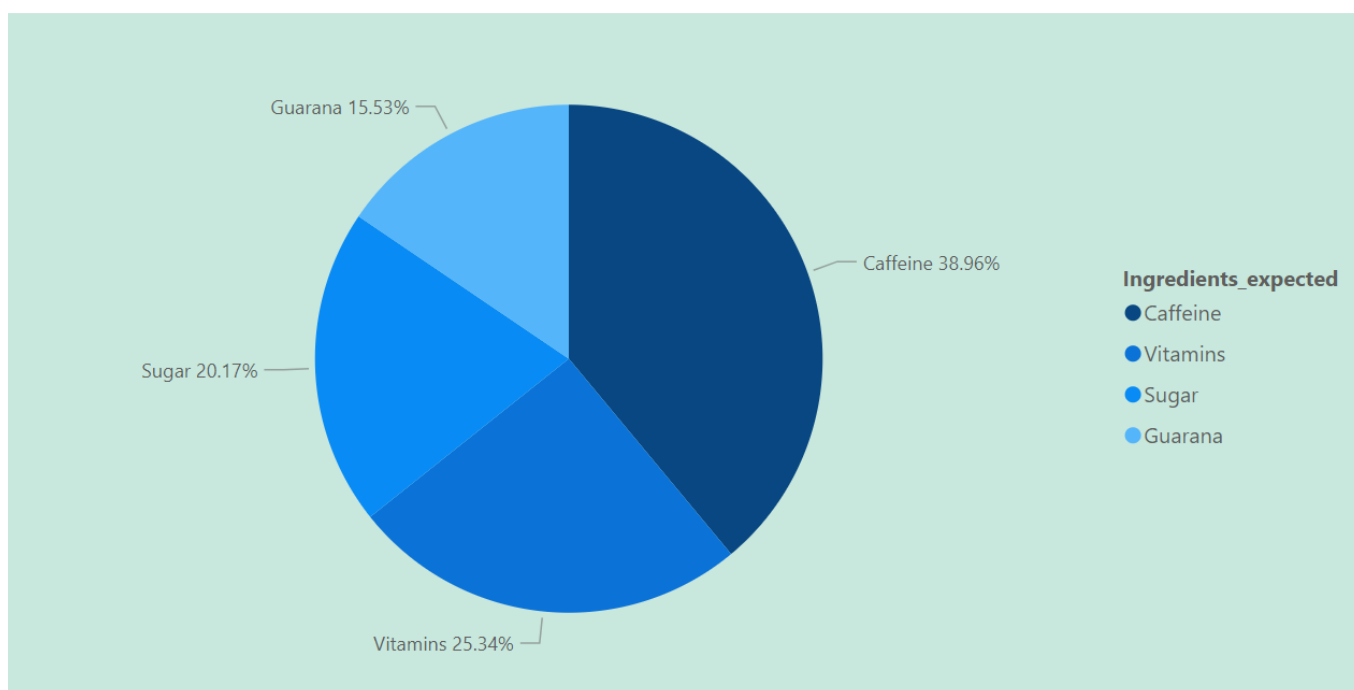
c. Which types of marketing reaches the most Youth (15-30)?



Youth are very fond of social media. So, the most of the marketing channels are Online Ads. Which will attract the more youth towards your products.

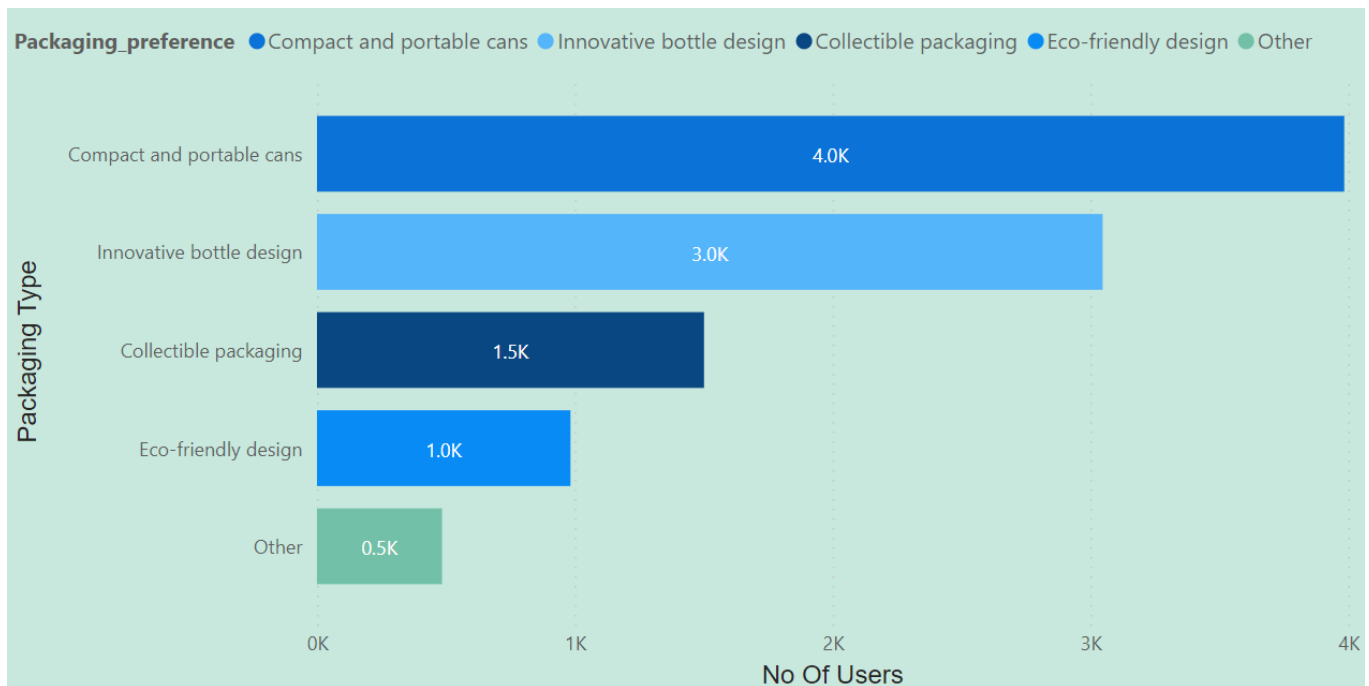
2. Consumer Preferences:

a. What are the preferred ingredients of energy drinks among respondents?



Most of the customers likes "Caffeine" more than the other provided ingredients.

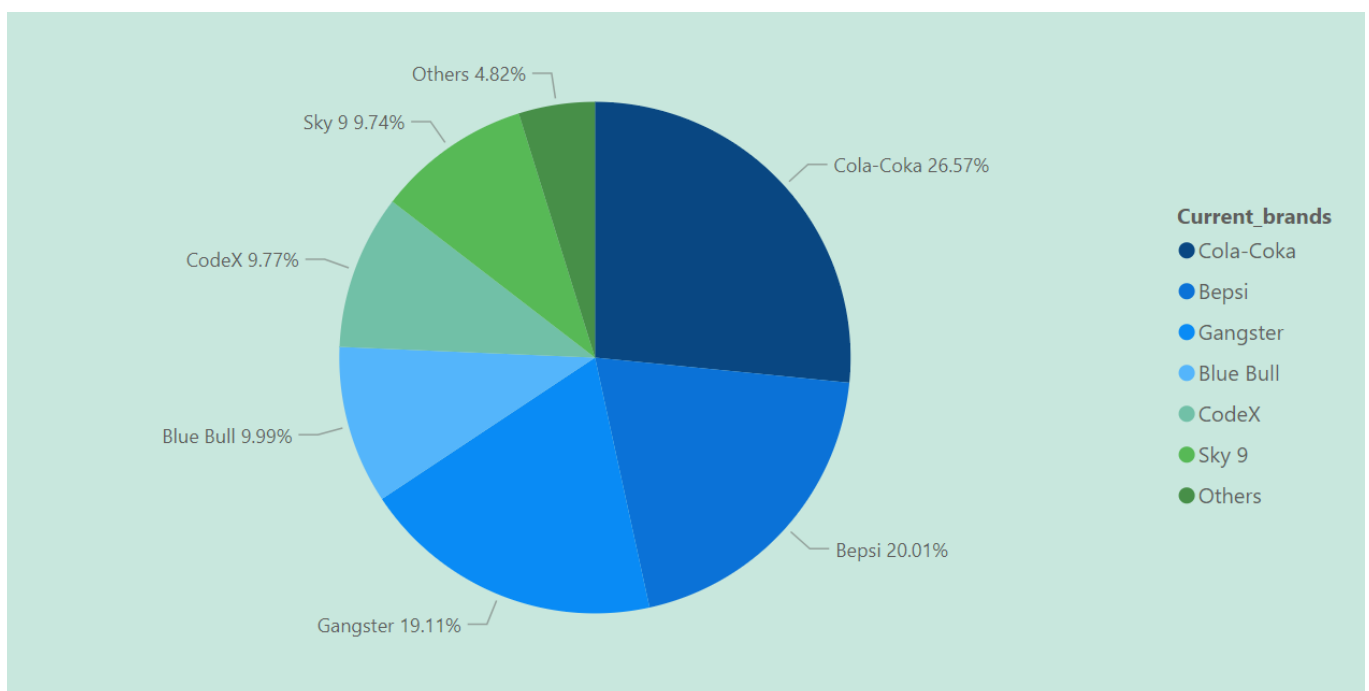
b. What packaging preferences do respondents have for energy drinks?



According to given data set almost **4K** people likes “Compact and Portable Cans” the most as packaging preference.

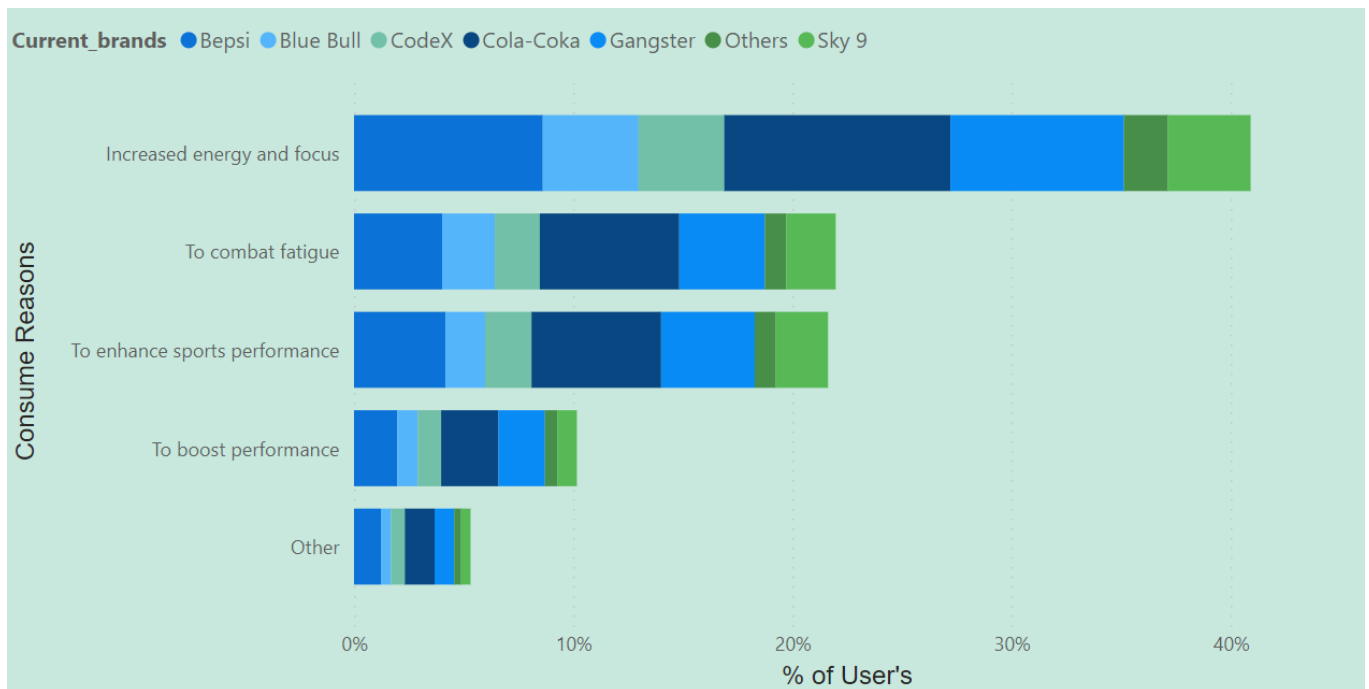
3. Competition Analysis:

a. Who are the current market leaders?

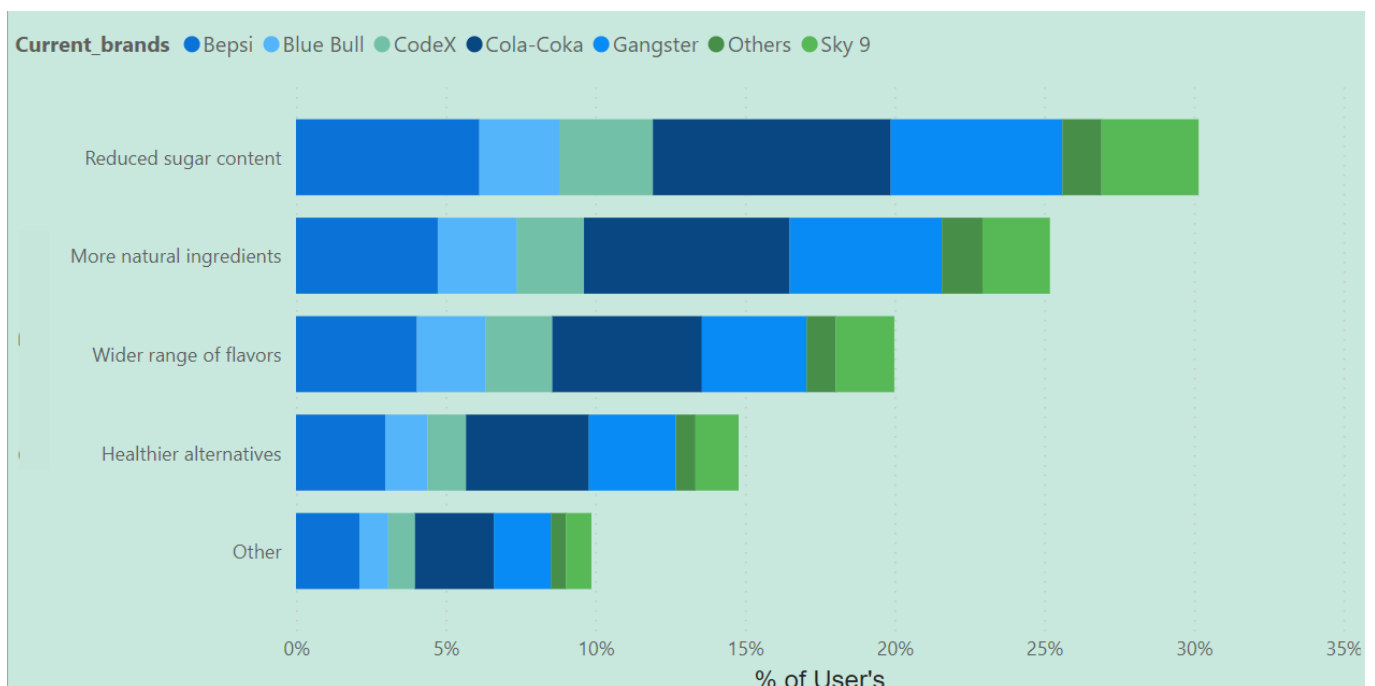


According to given Dataset Cola-Coka is currently the market leader followed by Bepsi and Gangster.

b. What are the primary reasons consumers prefer those brands over ours?



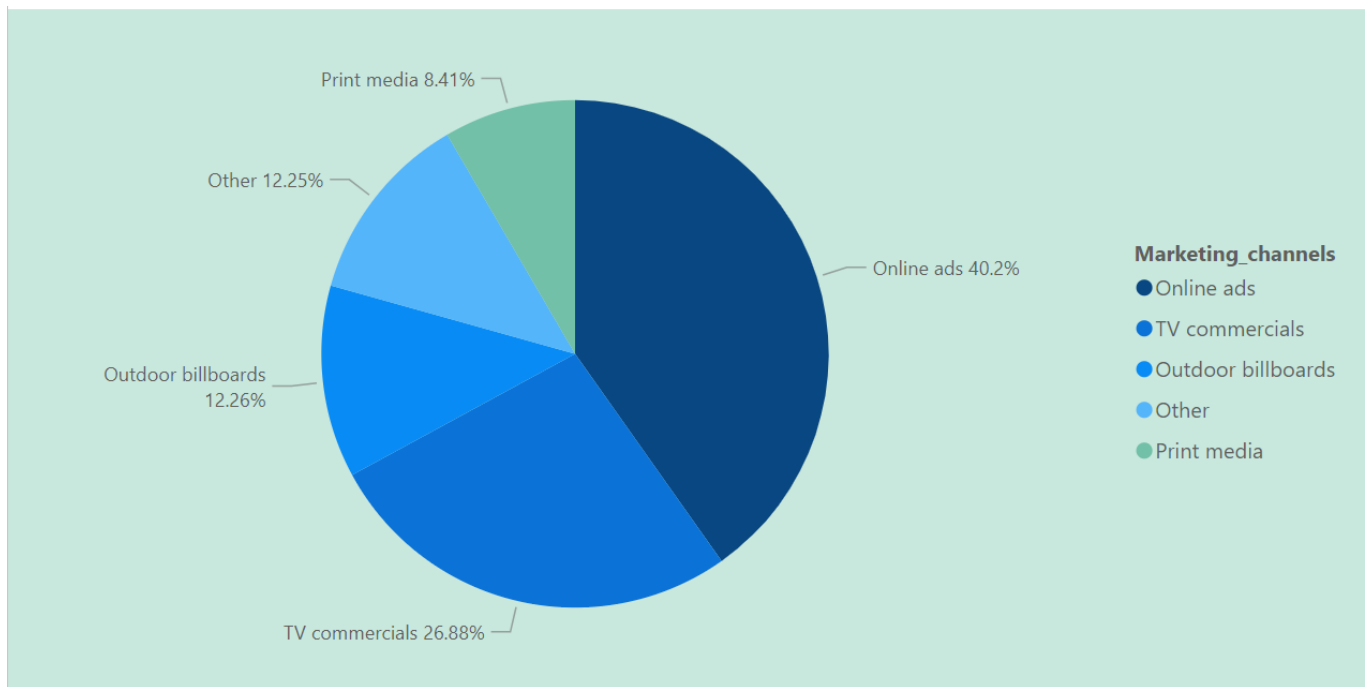
Anyone wants this energy drink to gain energy and focus during work hours, to combat fatigue and sportsman wants to enhance their performance. Other's energy drink provides such things in their drinks through their ingredient's but you are missing those things.



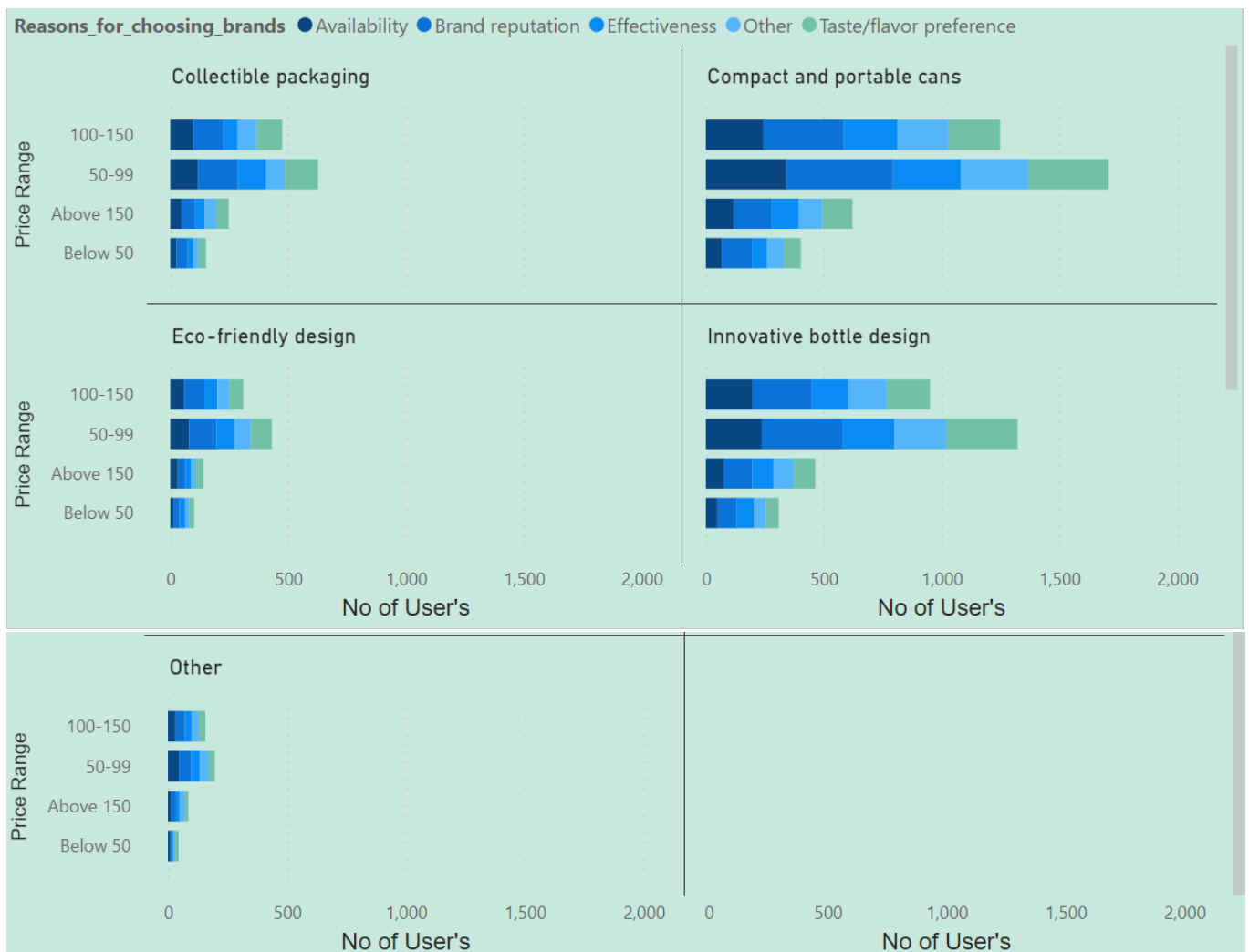
Customers wants some changes from you as compare to others. Your improvements are much better than other's but you have to provide such ingredients which are helpful in gaining energy and focus.

4. Marketing Channels and Brand Awareness:

a. Which marketing channel can be used to reach more customers?

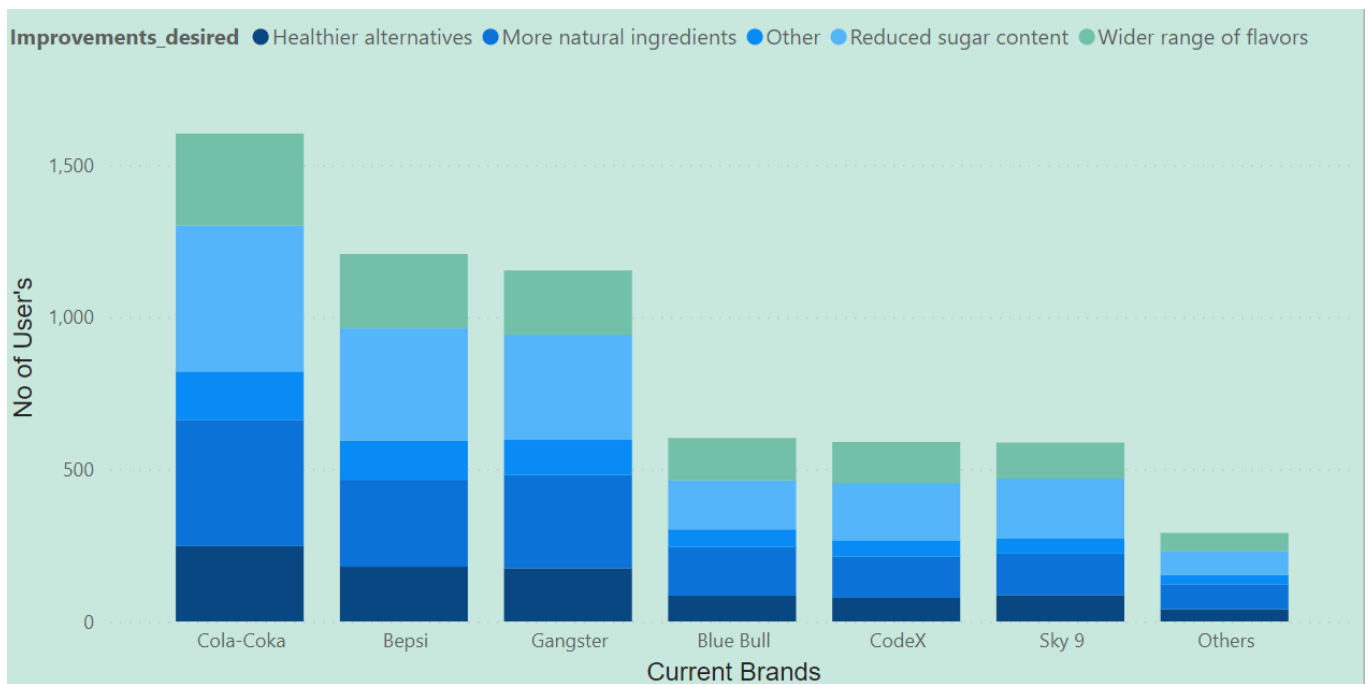


b. How effective are different marketing strategies and channels in reaching our customers?

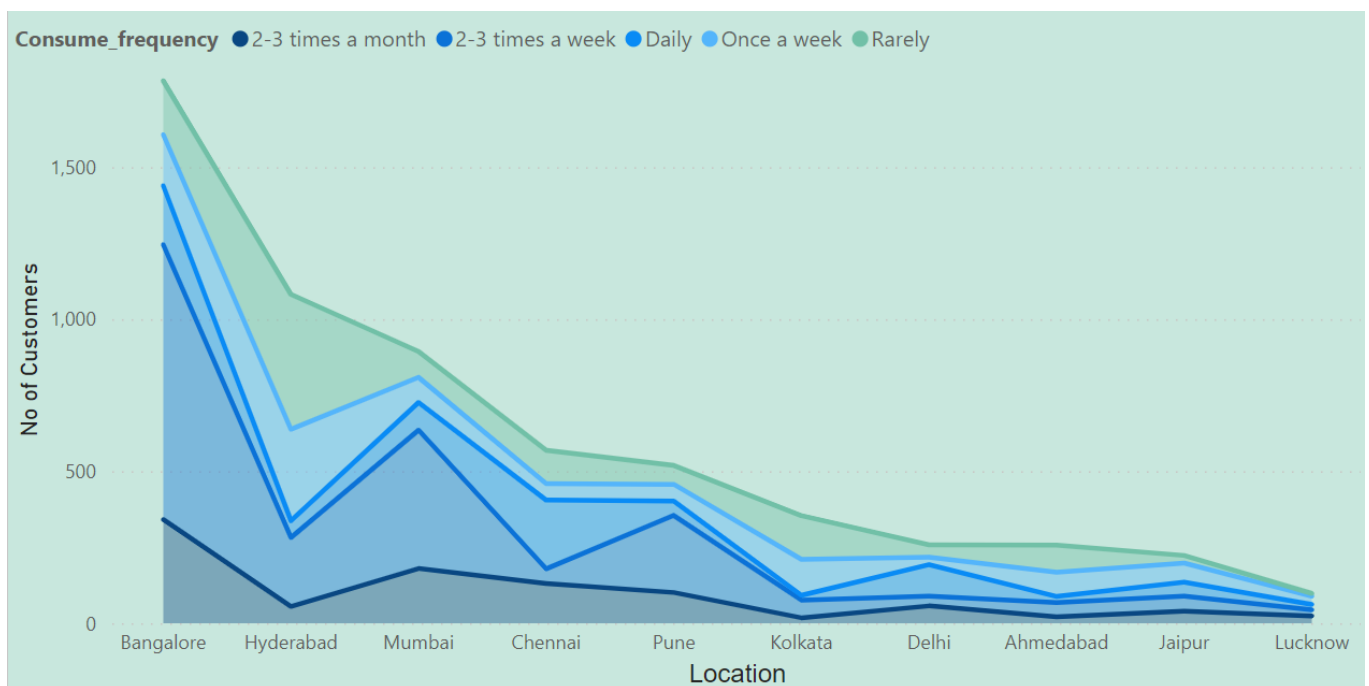


5. Brand Penetration:

a. What do people think about our brand? (Overall rating)?

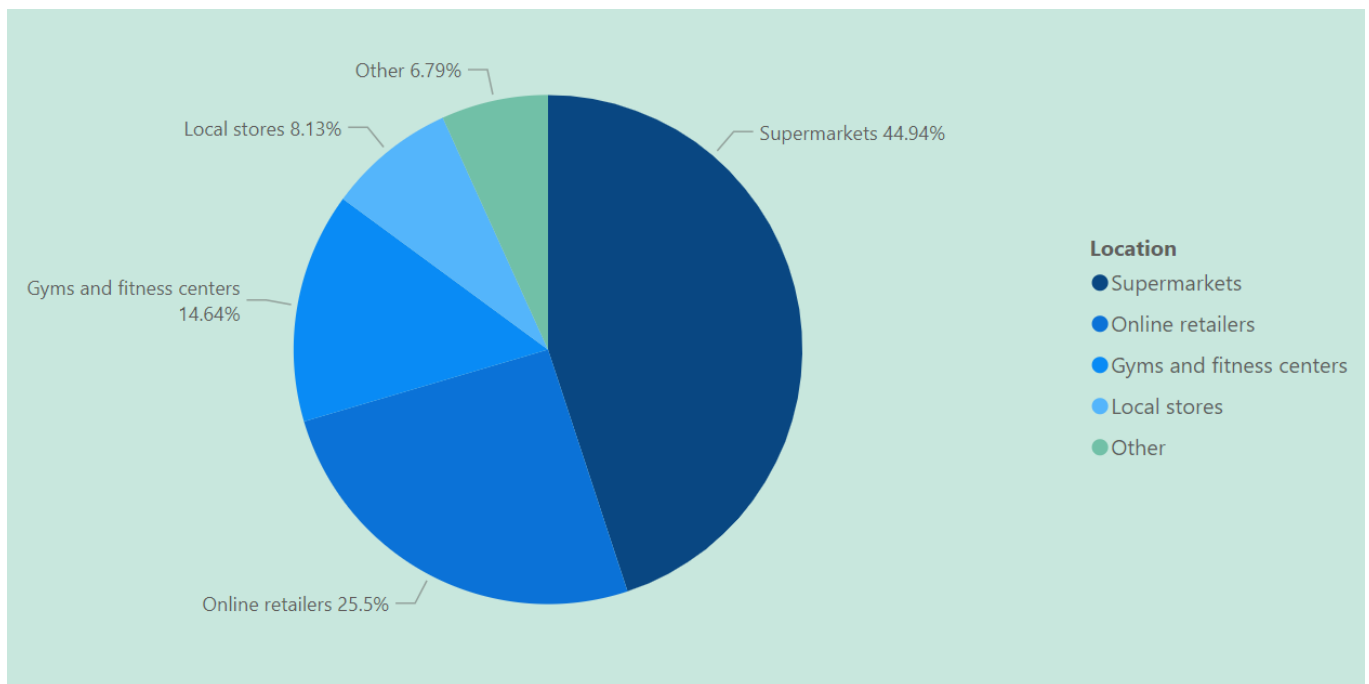


b. Which cities do we need to focus more on?

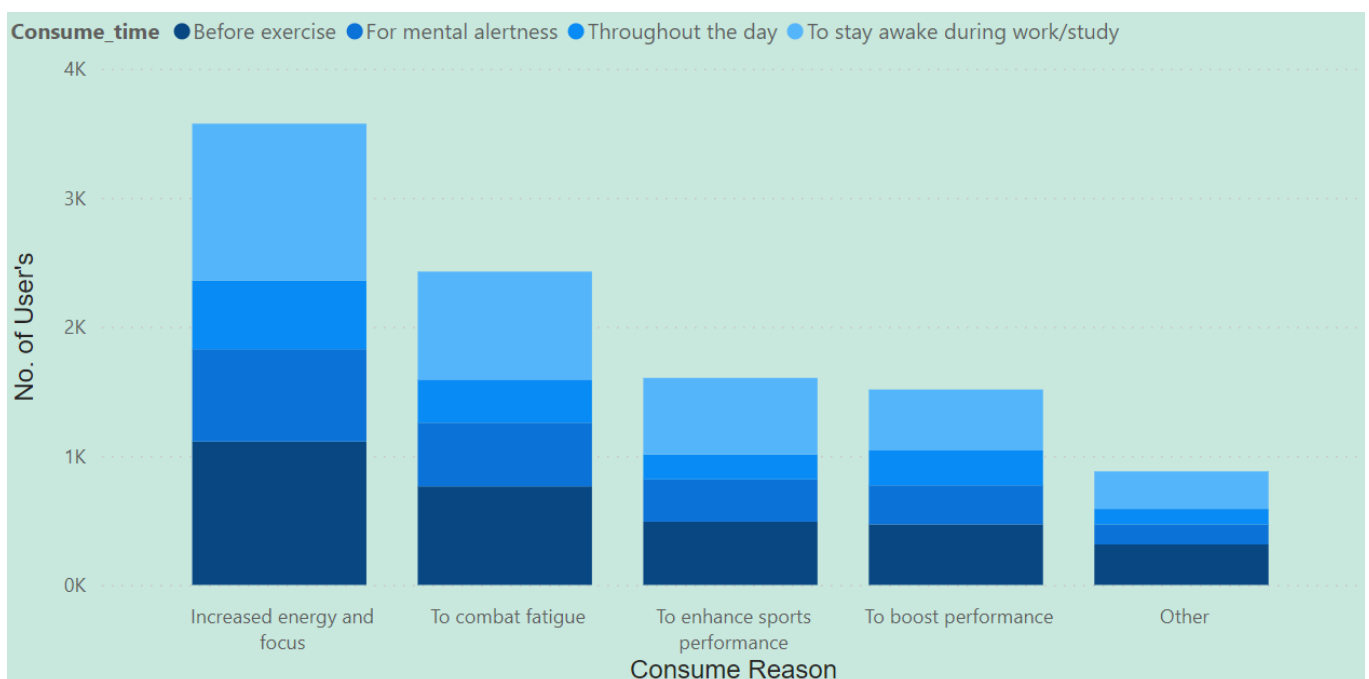


6. Purchase Behavior:

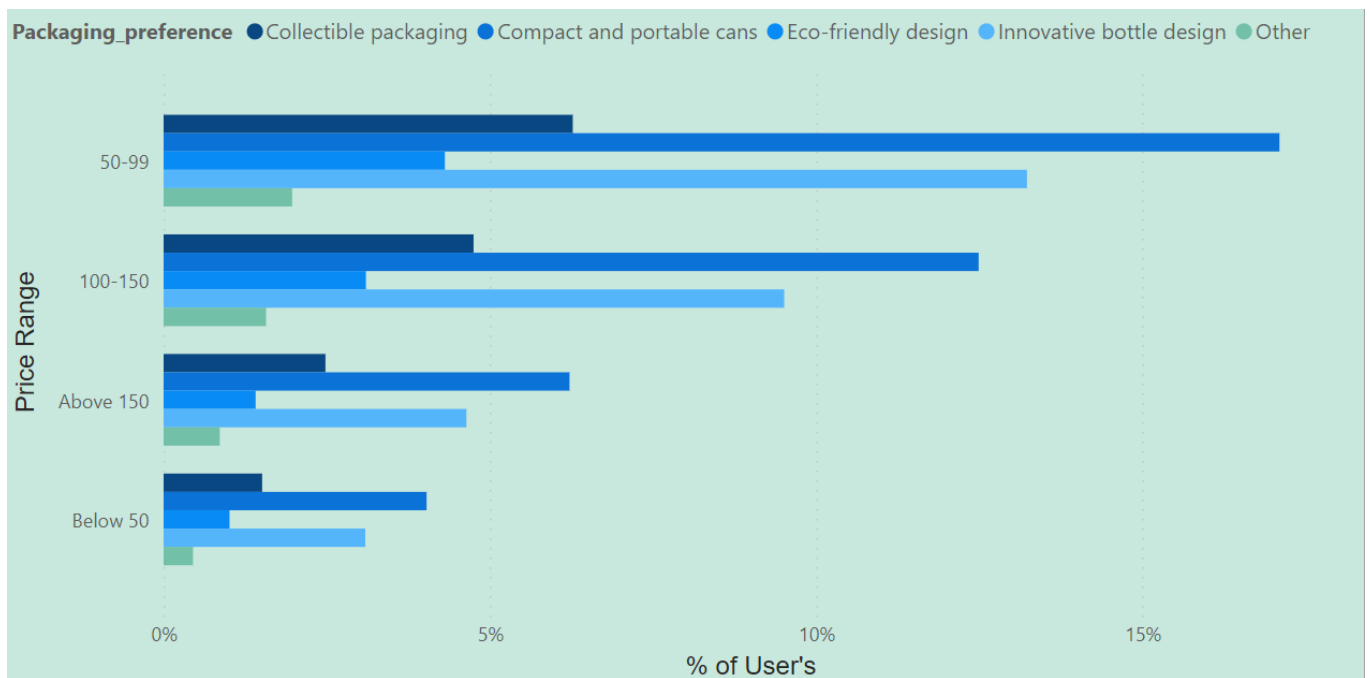
a. Where do respondents prefer to purchase energy drinks?



b. What are the typical consumption situations for energy drinks among respondents?



c. What factors influence respondents' purchase decisions, such as price range and limited-edition packaging?



7. Product Development

a. Which area of business should we focus more on our product development?



Summary

In conclusion, this comprehensive report highlights key insights from the analysis of CodeX given data. It recommends some changes according to market trends and Customer's preference. Immediately you have to shift your marketing path to Online Ads and Tv commercials. Respect the improvements that user wanted like reduced sugar content in products, a wide range of flavors and the presence of your brand in that city is a must win element for you. As a biggest city of brands, you have to Bangalore as but you have to target Mumbai and Chennai as well because market trend shows the increase in customers of brands there. Customers which use rarely the energy drinks are increasingly significantly in Bangalore as compared to others So you have to target them more through Tv Commercials and Online Ads.

Source

The dataset to me is provided by atomcamp.