REPORT OF ANALYSIS FOR GLOBALSHALA MARKETING AD CAMPAIGN

To achieve success in any advertisement campaign, there are key social media metrics that we need to track such as cost per reach (CPR), reach, impression, amount spent on ads, unique link clicks (ULC) and cost per click (CPC).

Objective:

Projet deliverables is to analyze the Marketing Team's data from Facebook Super U ad campaign in order to identify underperforming ads that should be discontinued so as to cut the company's marketing expenses.

Timeline :

The timeline for this project is Sunday, 5 February 2023, 12:00 AM

The Analytics Team :

- Koomson Edward Abbey – Team Lead
- Marieme Zouari – Team Project Manager
- Azzah Arshad– Team Project Manager
- Glory Agunwa – Team Scribe
- Ogochukwu Mercy Ezeh – Team Project Lead

Process :

We have approached some technical steps to tackle this problem:

1. Data understanding - the key to success on any data project is to understand the data in detail. So, we took the time to understand the data model and domain of your business.

2. Data extraction - after understanding the main topic, we architected what an ideal dataset should look like for this problem and extracted it from the relevant data sources.

3. After extracting the raw data, we needed to process and model this data into a dataset that can precisely answer the business questions and produce analytics.In our case, we achieved this by grouping the Campaign IDs by the important metrics such as Reach, Impressions, Amount spent and CPR.

4. With the new dataset, we used our analytical expertise to uncover insights from this dataset and to produce visualizations to describe the insights.

5. Data-informed Decision making - And finally we used these insights to unlock business decisions and to make recommendations on next step.

Tools for Data Analysis

Once we have data ready, we can try analyzing it using different tools.

In our project, we have used some graphing packages from Python(Matplotlib, seaborn) and also Tableau as great tools for data visualization.

Data understanding:

- FBs Ads Performance Overview:

Impressions	Reach	Frequency Average	Unique Link Clicks (ULC) Average	Cost Per Click (CPC) Average	Amount Spent in INR Average
289860	188868	1	478	3	1099

- Reach around the world:

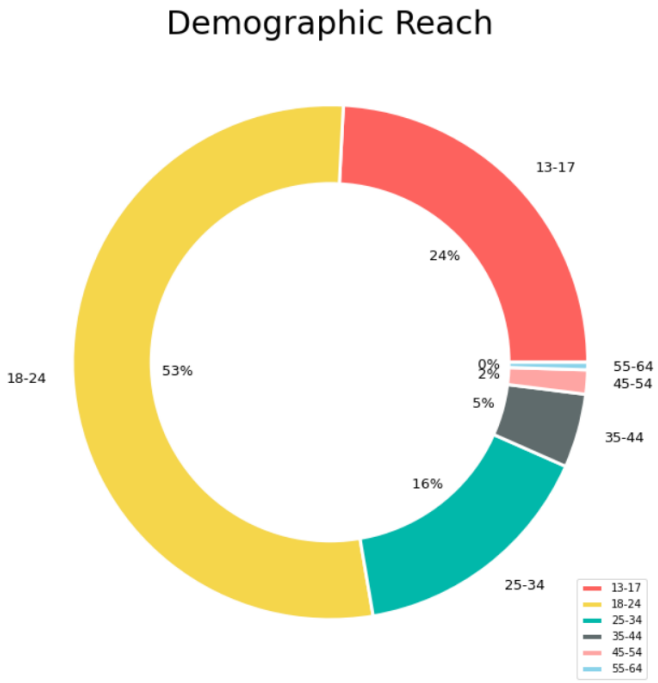
- Demographic Reach (Age):

Using a couple of lines of code in Python , we generated a pie chart showing Percentage for different age groups.

```
[42] import matplotlib.pyplot as plt
     import pandas as pd

     df =pd.read_csv('/content/Globalshala marketing team.csv')
```

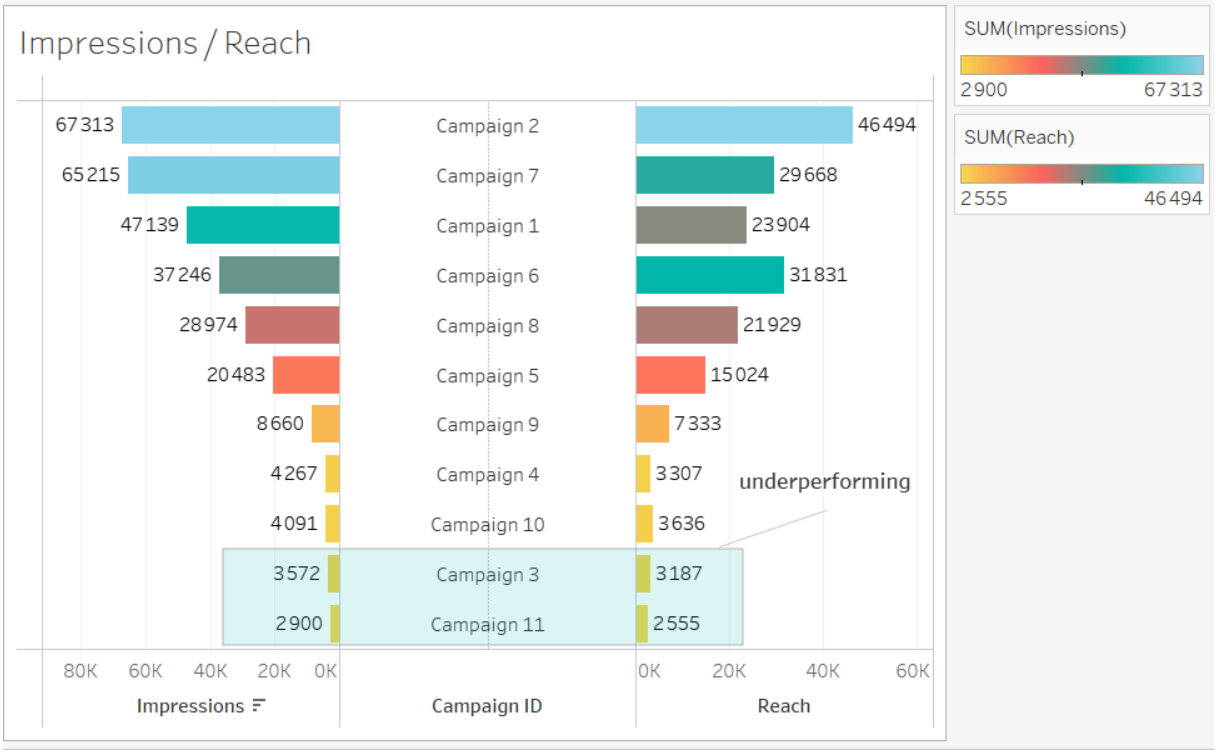
```
colors = ['#fd625e','#f5d64b','#01b8aa','#5f6b6c','#fea5a3','#8ad3ea']
explode = (0.05,0.05,0.05,0.05,0.05,0.05)
df.groupby(['Age']).sum().plot(kind='pie', y='Reach', autopct='%3.0f%%',
                               colors = colors,
                               wedgeprops={'linewidth': 3.0, 'edgecolor': 'white'},
                               figsize=(20, 11),
                               textprops={'fontsize': 13})

plt.title('Demographic Reach',fontsize = 30)
plt.ylabel('Reach', fontsize=16)
centre_circle = plt.Circle((0,0),0.70,fc='white')
fig = plt.gcf()
fig.gca().add_artist(centre_circle)
```

```
<matplotlib.patches.Circle at 0x7fc6537b20d0>
```



Deliverables :

1. Comparison of Reach and Impression



In this simple butterfly chart, impressions and reach are being compared. The items on the right represent the reach which depicts the number of users who see the ads at least once while the impressions, a metric which represents the total number of times an ad is displayed to audience is on the left.

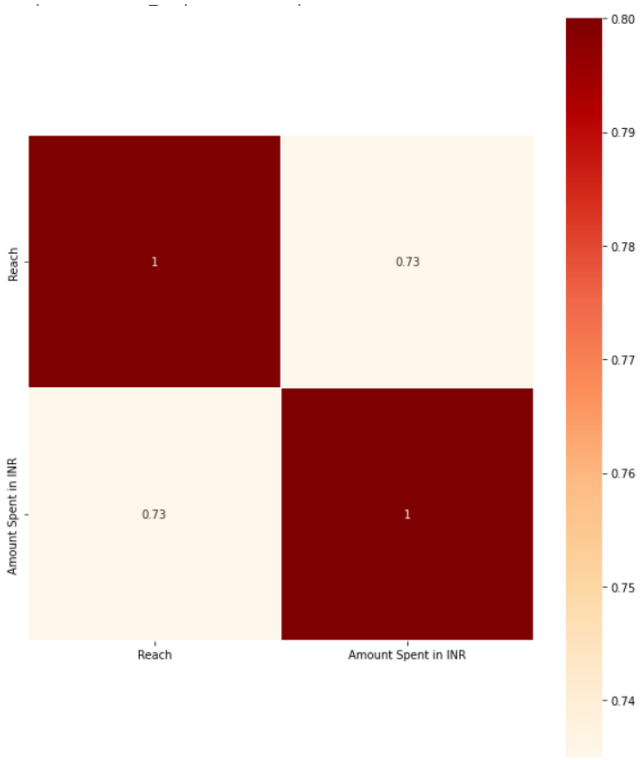
Reach and impressions are within the same range for the campaigns except for campaign 7 whose impression is larger than its reaches by about 40 points.

From the chart above, we can conclude that campaigns 3, 10 and 11 have the lowest amounts of reaches and impressions.

2. Comparing Reach with the Amount Spent

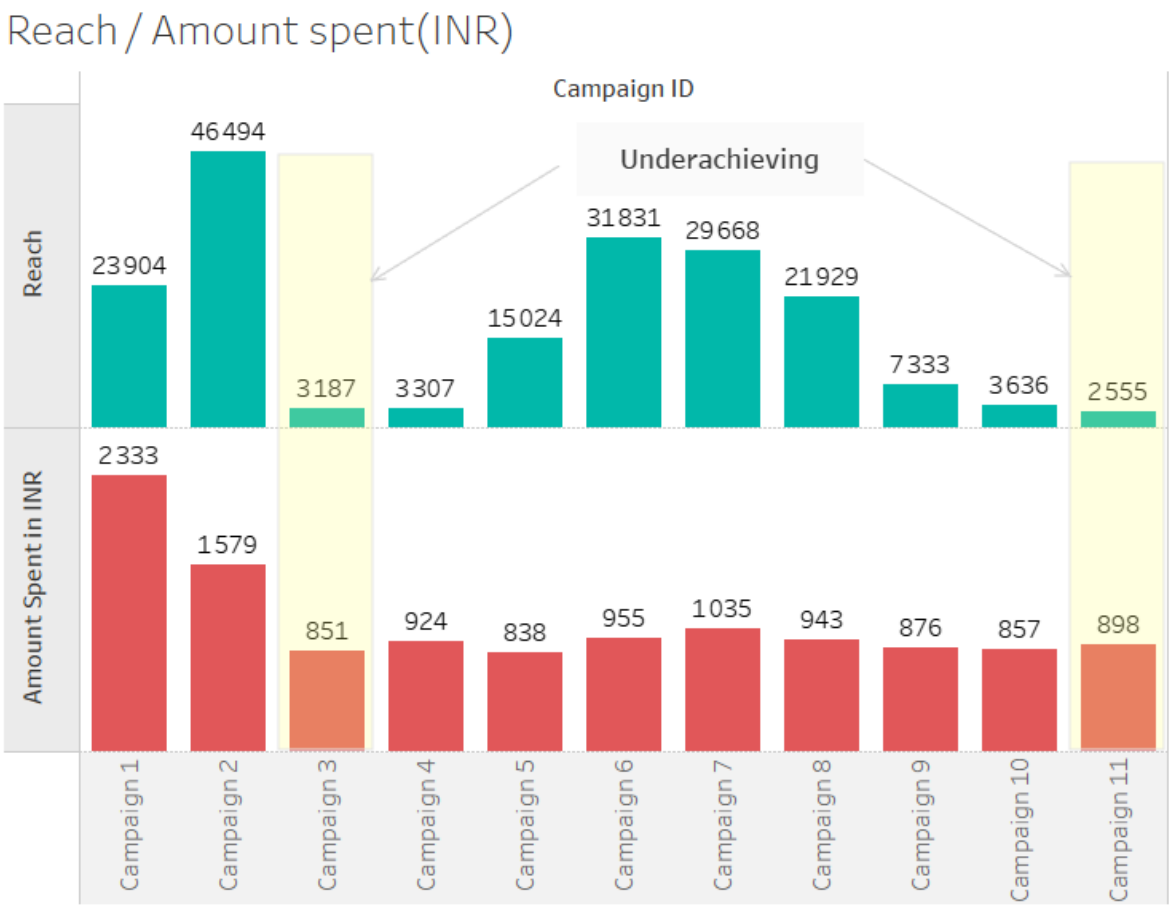
This correlation heatmap, which is a graphical representation of a correlation matrix ,represent the correlation between different variables.

We focus on the two variables: Reach and Amount spent in INR.



The two variables have strong positive correlation (greater than 0.7).

This leads to discover the relationship between them

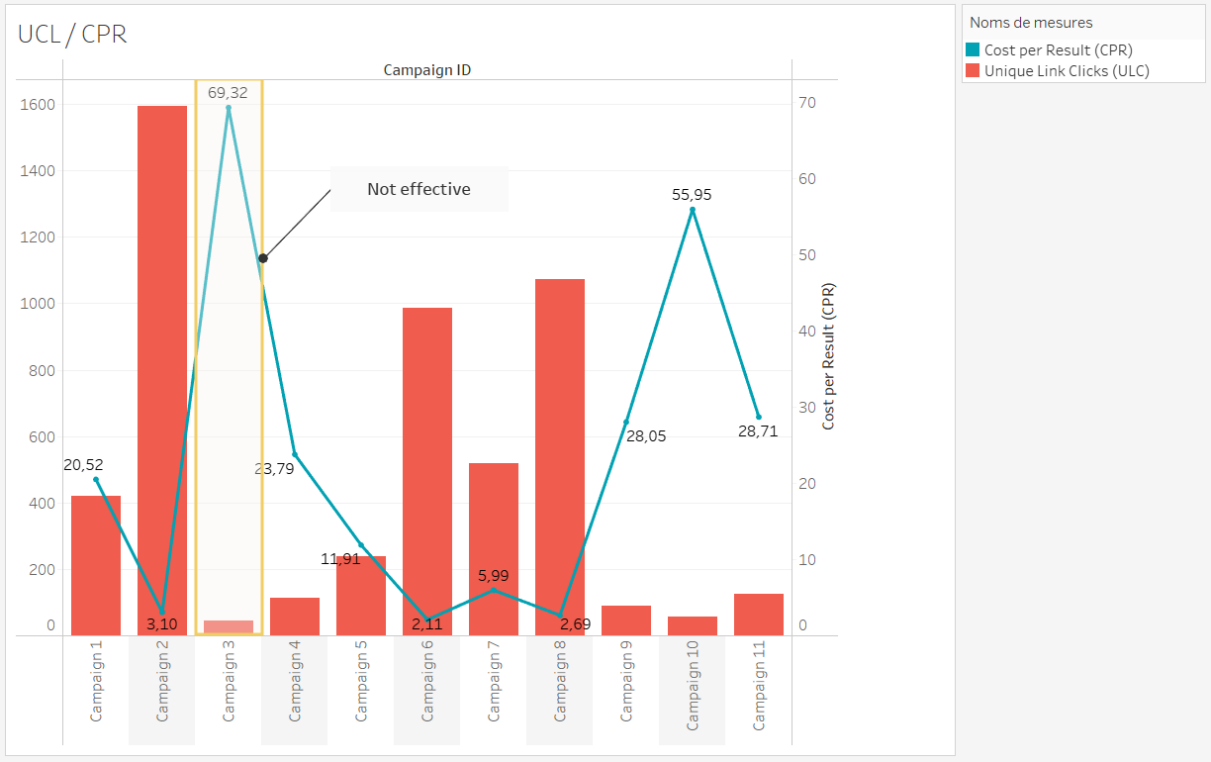


Comparing the Reach of each campaign to the total amount spent for each campaign, it can be seen that campaigns 3, 4, 10 and 11 have less reach and have their amount spent for campaign within the same range of (850-930) INR. Campaigns 3 and 11 have the least reach overall and are the least cost effective.

3. Relationship between ULC and CPR

The chart below shows the comparison between cost per result of each ad campaign and the unique link-clicks of each campaign. The bar chart represents the unique link-clicks (ULC), a metric used to measure the % of times people(unique) saw the ad and then clicked on the link. The line chart represents the cost per result (CPR), a metric that measures the average cost per result.

From the chart we can conclude that campaign 3 has the highest CPR and the least ULC. Judging by the CPR AND ULC, we can conclusively state that campaigns 3, 4, 9, 10 and 11 are poor performers while campaigns 2, 6, 7, and 8 are good performers.



Recommendation

The CPR (Cost Per Reach) and ULC (Unique Link Click) are important metric markers of success in an advertisement campaign. The CPR measures the total cost of the campaign divided by the total number of people reached. The ULC tracks a campaign's ability to generate a unique set of 'link clicks'. These metrics provide valuable insight into the efficiency and reach of an ad campaign, giving brands a better understanding of the success of their efforts.

When an advertisement has low unique link clicks and a high cost per result, it is likely that the ad is not effectively reaching its target audience or resonating with them. The best course of action would be to analyze the ad's design, messaging, and delivery to understand why it is not achieving the desired results. One option would be to adjust the ad's content to be more engaging and target a more specific audience. Another option would be to try different delivery platforms and formats, such as using influencers, running carousel ads, or using video ads. It is important to understand the user's behavior in order to determine the best approach for optimizing the ad.

Conclusion

After visualizing and comparing the results, we came to a conclusion that Campaign 3 is having the lowest number of reaches and impressions, while also having a higher amount spent. Therefore, Campaign 3 can be considered for removal due to their low result and cost efficiency.