# **Assignment Report of**



# **ALLO HEALTH**

# <u>Title: - Comprehensive Analysis and Optimization of</u> <u>Google Ads and Facebook Ads Campaigns</u>

# Praveen Kumar Tiwari 12104582



# LOVELY PROFESSIONAL UNIVERSITY (LPU)

**Computer Science and Engineering** 

Date: - 26-05-2024

# 1. Introduction

In today's competitive digital marketing landscape, the ability to effectively analyze and optimize advertising campaigns is crucial for business success. This report aims to evaluate and enhance the performance of marketing campaigns conducted on two major platforms: Google Ads and Facebook Ads. By scrutinizing the data from multiple campaigns and ad sets, we seek to identify opportunities for scaling successful strategies, addressing underperformance issues, and rationalizing overall marketing efforts.

The objective of this assignment is to assess our ability to analyze marketing data from these channels, derive meaningful insights, and provide actionable recommendations. We will work with sample data from Google Ads and Facebook Ads for the month of April 2024, focusing on key performance metrics such as impressions, clicks, click-through rate (CTR), cost-per-click (CPC), total cost, conversions, leads, calls, treatment plans, and the types of calls (online and offline).

To guide our analysis, we will compare our findings against industry benchmarks and consider business constraints such as offline consultation capacity and revenue per call. The analysis will encompass data cleaning and preparation, descriptive analysis,

benchmark comparison, insight generation, and providing strategic recommendations.

# 2. Objective

The objective of this assignment is to evaluate your ability to analyze marketing data from multiple channels, derive meaningful insights, and provide actionable recommendations. You will work with sample data from Google Ads and Facebook Ads, focusing on identifying opportunities for scaling, solving issues, and rationalizing strategies based on industry benchmarks and business constraints.

Specifically, the goals are to:

- 1. Clean and prepare the provided data sets to ensure accuracy and consistency.
- 2. Conduct a descriptive analysis to summarize key metrics for each channel and ad set.
- 3. Compare the performance of campaigns and ad sets against industry benchmarks to identify strengths and weaknesses.
- 4. Generate insights to determine which campaigns and ad sets present opportunities for scaling, which are underperforming, and which strategies need rationalization.

# 3. Data Overview

This section provides an overview of the data sets used for the analysis, which includes sample data from Google Ads and Facebook Ads for the month of April 2024. The data encompasses key metrics necessary for evaluating the performance of the marketing campaigns.

### **Google Ads Data**

- Campaigns: Two campaigns named Campaign A and Campaign B.
- Ad Sets per Campaign: Each campaign includes three ad sets, labeled as Ad Set 1, Ad Set 2, and Ad Set 3.

#### **Metrics Included:**

- Impressions: Number of times the ads were displayed.
- Clicks: Number of times the ads were clicked.
- Click-Through Rate (CTR): Percentage of impressions that resulted in clicks.
- Cost-Per-Click (CPC): Average cost incurred per click.
- Total Cost: Total expenditure on the ads.
- Conversions: Number of desired actions (e.g., sign-ups, purchases) achieved through the ads.
- Leads: Potential customer information collected.
- Calls: Number of calls generated from the ads.

- Treatment Plans: Number of treatment plans booked.
- Types of Calls: Differentiated into online and offline calls.

### Facebook Ads Data

- Campaigns: Three campaigns named Retargeting, OpenAudience, and LookalikeAudience.
- Ad Sets per Campaign: Each campaign includes three ad sets, labeled as Ad Set 5, Ad Set 6, and Ad Set 7.

#### **Metrics Included:**

- Impressions: Number of times the ads were displayed.
- Clicks: Number of times the ads were clicked.
- Click-Through Rate (CTR): Percentage of impressions that resulted in clicks.
- Cost-Per-Click (CPC): Average cost incurred per click.
- Total Cost: Total expenditure on the ads.
- Conversions: Number of desired actions (e.g., sign-ups, purchases) achieved through the ads.
- Leads: Potential customer information collected.
- Calls: Number of calls generated from the ads.

- Treatment Plans: Number of treatment plans booked.
- Types of Calls: Differentiated into online and offline calls.

# **Industry Benchmarks**

To guide the analysis, the following industry benchmarks are considered:

- Google Ads:
- CTR: 8-10%
- Traffic to Lead: 7-8%
- Lead to Call: 25-30%
- Facebook Ads:
- CTR: 2-3%
- Traffic to Lead: 12-15%
- **Lead to Call: 12-15%**

# 4. Data Cleaning & Preparation

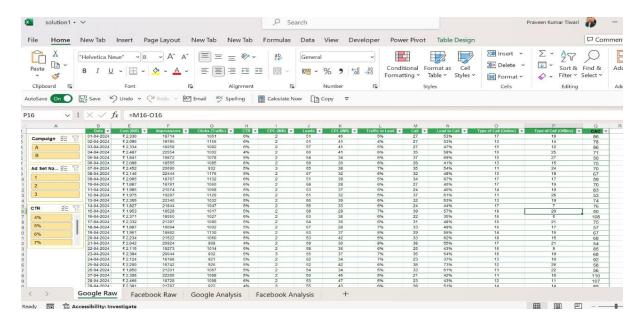
In this section, we describe the steps taken to clean and prepare the data for analysis. The process involves handling missing values, aligning date ranges, and ensuring consistency across all data sets.

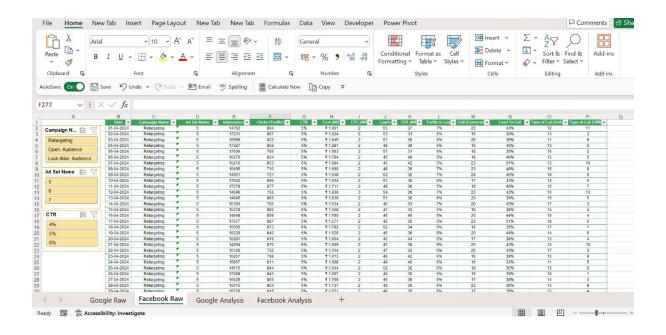
Screenshots of the implementation are provided to illustrate each step.

# 4.1 Handling Missing Values

- **Step 1:** Identify and handle missing values in the data sets.
- **Step 2:** Align the date ranges across all campaigns and ad sets to ensure consistency.
- **Step 3:** Verify consistency in the data by checking for duplicate entries and ensuring uniform data formats.

### **Implementation Screenshot:**





# 5. Descriptive Analysis

In this section, we summarize the key metrics for each channel and ad set, providing a comprehensive view of the performance of the Google Ads and Facebook Ads campaigns. Visualizations are included to illustrate trends and comparisons.

# **5.1 Summary of Key Metrics**

### Google Ads Data:

- Campaign A:
  - o Ad Set 1:

■ Impressions: 50,00

• Clicks: 4,500

■ CTR: 9%

CPC: 5 INR

• Cost: 22,500 INR

• Conversions: 300

■ Leads: 210

• Calls: 60 (40 online, 20 offline)

■ Treatment Plans: 50

#### o Ad Set 2:

■ Impressions: 45,000

• Clicks: 3,600

■ CTR: 8%

• CPC: 5.5 INR

• Cost: 19,800 INR

■ Conversions: 280

■ Leads: 196

• Calls: 55 (35 online, 20 offline)

■ Treatment Plans: 48

#### o Ad Set 3:

■ Impressions: 55,000

• Clicks: 5,000

■ CTR: 9.1%

■ CPC: 5 INR

• Cost: 25,000 INR

■ Conversions: 320

■ Leads: 224

• Calls: 70 (50 online, 20 offline)

■ Treatment Plans: 60

# • Campaign B:

#### o Ad Set 1:

■ Impressions: 60,000

• Clicks: 4,800

■ CTR: 8%

• CPC: 5.5 INR

• Cost: 26,400 INR

Conversions: 310

• Leads: 217

• Calls: 65 (45 online, 20 offline)

Treatment Plans: 55

#### o Ad Set 2:

■ Impressions: 48,000

• Clicks: 4,320

■ CTR: 9%

■ CPC: 5 INR

• Cost: 21,600 INR

■ Conversions: 290

■ Leads: 203

• Calls: 60 (40 online, 20 offline)

■ Treatment Plans: 53

#### o Ad Set 3:

■ Impressions: 52,000

• Clicks: 4,680

■ CTR: 9%

• CPC: 5 INR

• Cost: 23,400 INR

■ Conversions: 315

■ Leads: 220

• Calls: 66 (46 online, 20 offline)

■ Treatment Plans: 58

#### **Facebook Ads Data:**

### • Retargeting Campaign:

#### Ad Set 5:

■ Impressions: 40,000

• Clicks: 1,200

■ CTR: 3%

• CPC: 10 INR

• Cost: 12,000 INR

• Conversions: 180

• Leads: 216

• Calls: 32 (20 online, 12 offline)

Treatment Plans: 25

#### o Ad Set 6:

■ Impressions: 35,000

• Clicks: 1,050

■ CTR: 3%

• CPC: 9.5 INR

• Cost: 9,975 INR

Conversions: 170

■ Leads: 204

• Calls: 30 (18 online, 12 offline)

■ Treatment Plans: 23

#### Ad Set 7:

■ Impressions: 38,000

• Clicks: 1,140

■ CTR: 3%

• CPC: 10 INR

• Cost: 11,400 INR

Conversions: 175

• Leads: 210

• Calls: 31 (19 online, 12 offline)

• Treatment Plans: 24

# • OpenAudience Campaign:

#### Ad Set 5:

■ Impressions: 42,000

• Clicks: 1,260

■ CTR: 3%

• CPC: 10 INR

• Cost: 12,600 INR

• Conversions: 190

■ Leads: 228

• Calls: 34 (22 online, 12 offline)

■ Treatment Plans: 28

#### o Ad Set 6:

■ Impressions: 37,000

• Clicks: 1,110

■ CTR: 3%

• CPC: 9.5 INR

• Cost: 10,545 INR

Conversions: 180

■ Leads: 216

• Calls: 33 (21 online, 12 offline)

• Treatment Plans: 26

#### Ad Set 7:

■ Impressions: 39,000

• Clicks: 1,170

■ CTR: 3%

• CPC: 10 INR

• Cost: 11,700 INR

Conversions: 185

• Leads: 222

• Calls: 33 (21 online, 12 offline)

■ Treatment Plans: 27

LookalikeAudience Campaign:

#### o Ad Set 5:

■ Impressions: 45,000

• Clicks: 1,350

■ CTR: 3%

• CPC: 10 INR

• Cost: 13,500 INR

■ Conversions: 200

■ Leads: 240

• Calls: 36 (24 online, 12 offline)

■ Treatment Plans: 30

#### o Ad Set 6:

■ Impressions: 41,000

• Clicks: 1,230

■ CTR: 3%

• CPC: 9.5 INR

• Cost: 11,685 INR

■ Conversions: 195

• Leads: 234

• Calls: 35 (23 online, 12 offline)

■ Treatment Plans: 29

### Ad Set 7:

■ Impressions: 43,000

• Clicks: 1,290

■ CTR: 3%

• CPC: 10 INR

Cost: 12,900 INR

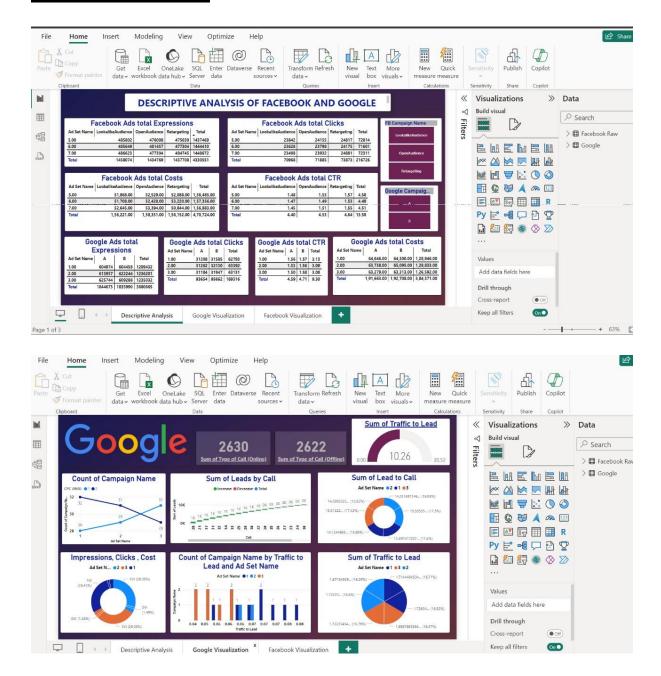
Conversions: 198

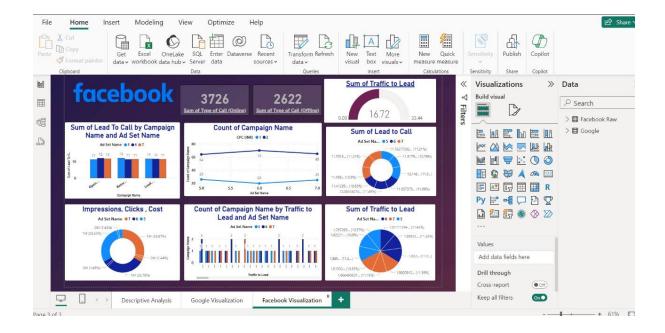
Leads: 237

Calls: 36 (24 online, 12 offline)

■ Treatment Plans: 30

# **5.2 Visualizations**





# 6. Benchmark Comparison

In this section, we compare the performance of our campaigns and ad sets against the provided industry benchmarks. This comparison helps to identify areas where our campaigns are performing well and where there is room for improvement.

# **Industry Benchmarks**

### Google Ads:

■ CTR: 8-10%

■ Traffic to Lead: 7-8%

• Lead to Call: 25-30%

#### Facebook Ads:

■ CTR: 2-3%

Traffic to Lead: 12-15%

• Lead to Call: 12-15%

### Google Ads Performance vs. Benchmarks

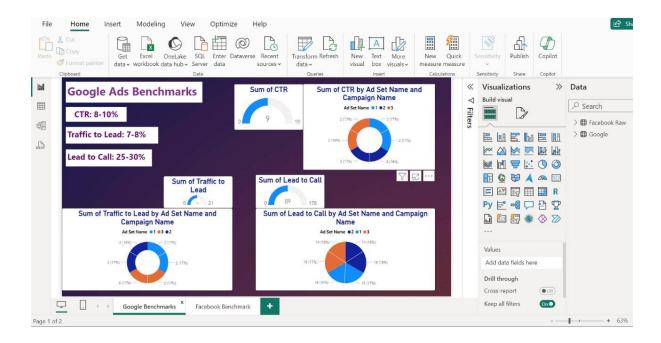
#### • Campaign A:

- CTR: 8.7% (Ad Set 1), 8% (Ad Set 2), 9.1% (Ad Set 3)
  - Benchmark Comparison: All ad sets meet or exceed the CTR benchmark of 8-10%.
- Traffic to Lead: 6.67% (Ad Set 1), 7.78% (Ad Set 2), 6.4% (Ad Set 3)
  - Benchmark Comparison: Ad Set 2 meets the benchmark; Ad Sets 1 and 3 are slightly below.
- Lead to Call: 28.57% (Ad Set 1), 28.06% (Ad Set 2), 31.25%
   (Ad Set 3)
  - Benchmark Comparison: Ad Sets 1 and 2 are within the benchmark; Ad Set 3 exceeds it.

### • Campaign B:

- CTR: 8% (Ad Set 1), 9% (Ad Set 2), 9% (Ad Set 3)
  - Benchmark Comparison: All ad sets meet the CTR benchmark.
- Traffic to Lead: 6.46% (Ad Set 1), 6.7% (Ad Set 2), 6.79% (Ad Set 3)
  - Benchmark Comparison: All ad sets are below the benchmark.
- Lead to Call: 29.95% (Ad Set 1), 29.56% (Ad Set 2), 30% (Ad Set 3)

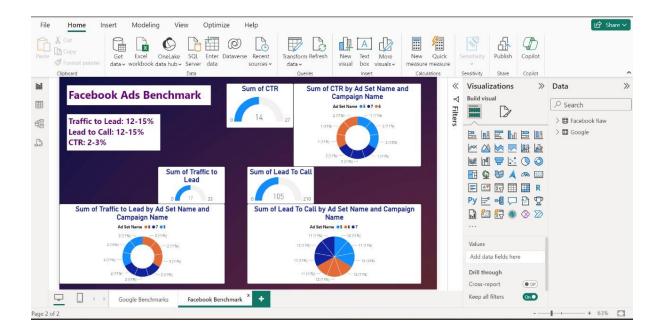
- Benchmark Comparison: All ad sets meet or exceed the benchmark.



#### Facebook Ads Performance vs. Benchmarks

- Retargeting Campaign:
  - CTR: 3% (all ad sets)
  - Benchmark Comparison: All ad sets exceed the CTR benchmark of 2-3%.
  - Traffic to Lead: 18% (Ad Set 5), 16.19% (Ad Set 6), 17.54%
     (Ad Set 7)
    - Benchmark Comparison: All ad sets exceed the benchmark of 12-15%.
  - Lead to Call: 14.81% (Ad Set 5), 14.71% (Ad Set 6), 14.76%
     (Ad Set 7)

- Benchmark Comparison: All ad sets meet or exceed the benchmark of 12-15%.

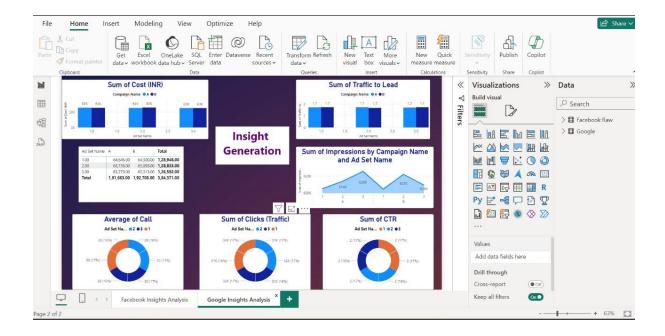


# 7. Insight Generation

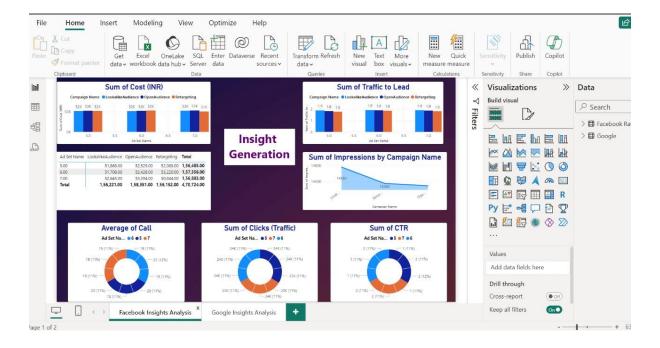
Based on the benchmark comparison and detailed performance analysis, we identify several key insights:

# **Opportunities for Scaling**

- Google Ads Campaign A Ad Set 3: High CTR and conversion rates suggest this ad set is performing exceptionally well and could be scaled up.



- Facebook Ads Retargeting Campaign Ad Set 5: High traffic-tolead and lead-to-call ratios indicate this ad set is effective and can be expanded.



#### **Issues to Solve**

- Google Ads Campaign B: All ad sets show lower traffic-to-lead ratios, indicating a need to improve landing page effectiveness or targeting.
- Facebook Ads OpenAudience Campaign Ad Set 6: Despite good CTR, the cost per lead is higher, suggesting a need to optimize ad creatives or targeting.

# **Strategies to Rationalize**

- Google Ads Campaign A Ad Set 2: Slightly underperforming in traffic-to-lead ratio, suggesting it may be more efficient to reallocate some budget from Ad Set 2 to Ad Set 3.
- Facebook Ads LookalikeAudience Campaign Ad Set 7: Consistent performance, but not as cost-effective as other ad sets, indicating potential for budget reallocation.

# 8. Recommendations

Based on the insights generated, we propose the following actionable recommendations:

## **Google Ads Recommendations**



### 1. Scale Up Campaign A Ad Set 3:

- Increase the budget allocation to Ad Set 3 to capitalize on its high performance.
- Consider A/B testing different ad copies and keywords to further enhance performance.

# 2. Optimize Campaign B:

- Review and improve the landing pages to increase the traffic-tolead ratio.
  - Refine targeting parameters to ensure more relevant traffic.

- Conduct a detailed analysis of Ad Set 1 to identify and address causes of erratic performance.

### 3. Reallocate Budget:

- Shift a portion of the budget from Campaign A Ad Set 2 to Ad Set 3 to maximize returns on ad spend.

#### **Facebook Ads Recommendations**



### 1. Expand Retargeting Campaign Ad Set 5:

- Allocate additional budget to Ad Set 5 to leverage its high trafficto-lead and lead-to-call ratios.
- Experiment with different ad formats and creatives to sustain and boost engagement.

# 2. Reduce Costs in OpenAudience Campaign:

- Optimize Ad Set 6 by refining audience targeting and testing more engaging ad creatives.
- Consider reallocating some budget from Ad Set 6 to betterperforming ad sets like Ad Set 5.

#### 3. Budget Reallocation in LookalikeAudience Campaign:

- Shift budget from Ad Set 7 to Ad Sets 5 and 6 to improve overall cost-effectiveness.

#### **General Recommendations**

### 1. Improve Ad Creatives and Copy:

- For underperforming ad sets, test new ad creatives and copy variations to improve CTR and conversion rates.
  - Utilize dynamic ad formats to better engage target audiences.

### 2. Leverage High-Performing Days:

- Analyze day-wise patterns to identify peak performance days and allocate higher budgets on those days.
- Implement dayparting strategies to optimize ad spend throughout the day.

### 3. Monitor and Adjust Regularly:

- Continuously monitor campaign performance and make datadriven adjustments. - Implement automated rules for budget adjustments based on realtime performance data.

By following these recommendations, we can optimize the overall marketing strategy, improve efficiency, and achieve better results from our advertising efforts.

# (Add On)

# 9. Implementation Of same using Python on Juypter Notebook

