# Analysis and Suggestion for SuperHero U Ads on Facebook
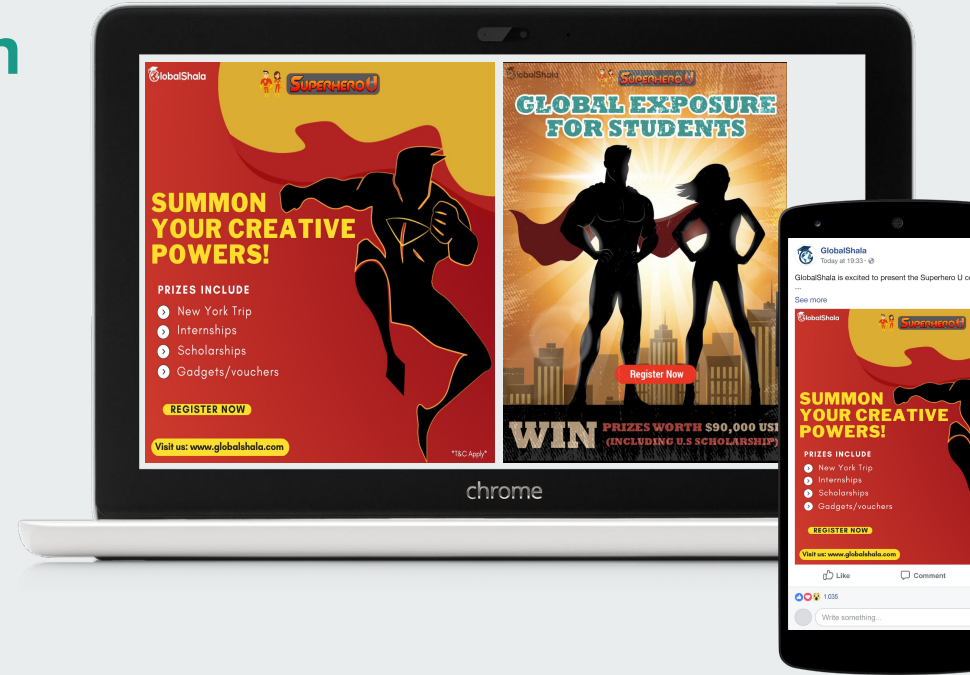
By Group 13B

# Team Introduction

| Team Lead | Project Manager | Project Scribe |
|---|---|---|
| **Mojibola Adekunle** | **Sai Teja Dugyala** | **Jagadeesh Kakamolu** |

| Project Lead | Project Scribe | |
|---|---|---|
| **Seoyoung Kim** | **Khoa Pham** | |

# SUPERHERO U Challenge

**What**
- Competitive event

**When**
- Competition Deadline

**Who**
- Students
- Individual
- Team of 4

**How**
- Comic Strip
- Video
- Presentation

# SUPERHERO U
## Challenge

**Motive**

- Imaginative
- Problem-solving
- Creativitivity
- Innovative

**Themes**

- People
- Peace
- Planet
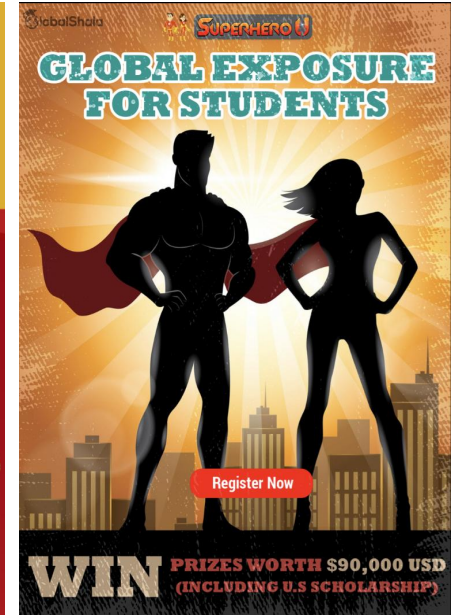- Partnership
- Prosperity



**Inspirations**

- UN Global Compact
- UN Sustainable Development
- UN Women

**Rewards**

- Scholarships
- Cash prizes
- Travels

# Campaign Overview

- **Ad Agency**: Facebook

- **Objective**:

  Promote Event Participation

- **Two Target Audiences**:

  1. Interns (Left Picture)

  2. Educators and Principals

     (Right Picture)

# Project Objective

✓ Determine whether campaigns are successful.

✓ Suggest campaign's removal with low ad effectiveness in terms of return on investment.
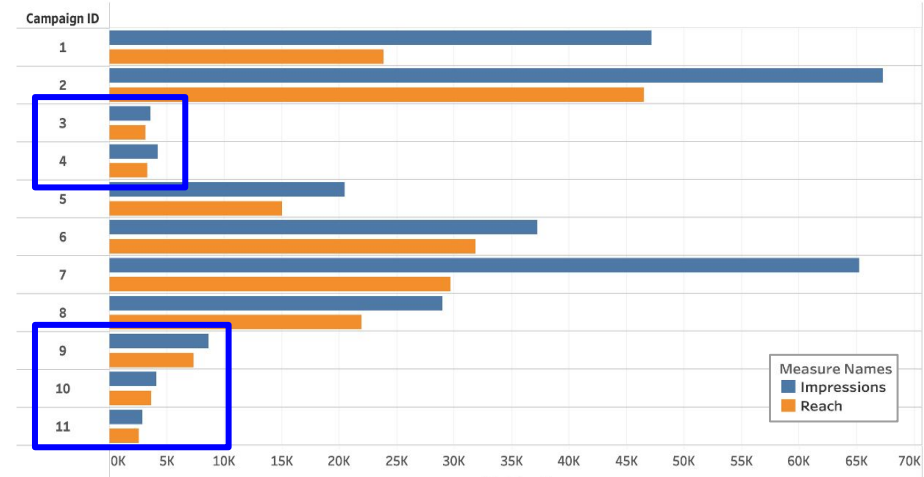
# Dataset Overview

✓ Total Number of Campaigns Analysed - 11

✓ Dataset - 16 feature columns

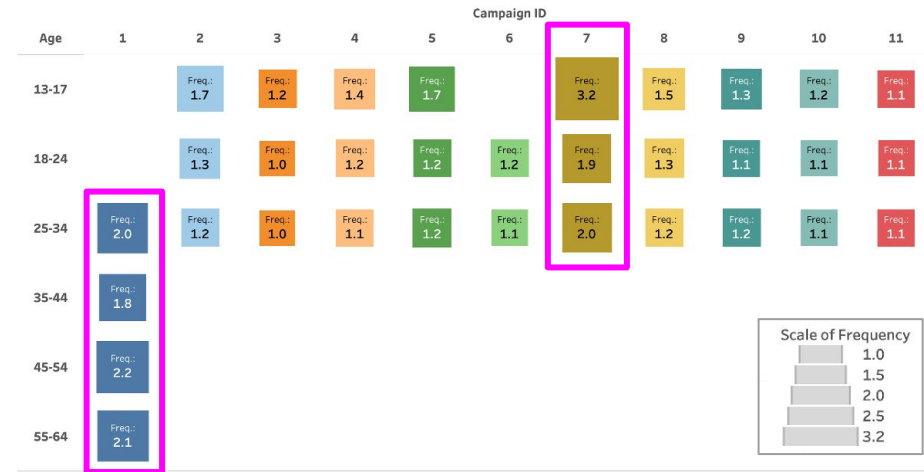| Basic Info | Action Info | Click Info | Cost Info |
|---|---|---|---|
| Campaign ID<br>Campaign Name<br>Audience<br>Age<br>Geography | Reach<br>Impressions<br>Frequency | Clicks<br>Unique Clicks<br>Unique Link Click<br>Click-Through Rate<br>Unique Click-Through Rate | Amount Spent<br>Cost Per Click<br>Cost per Result |

# Data Analysis -

# Frequency

1. Number of people and times seen ads were relatively **low** in **Campaigns 3, 4, 9, 10, and 11**.

2. The ad seems **to have appealed more to campaigns 1 and 7**, which represent high frequencies, and to the **13-17 age group**, which is relatively higher than other groups.

\* **Reach:** Number of people who saw the ad
\* **Impressions:** Times spent watching ad
\* **Frequency** = Impressions/Reach



Comparision between Impressions and Reach for each Campaign

Measure Names
- Impressions
- Reach

Frequency broken down by Campaign ID vs. Age

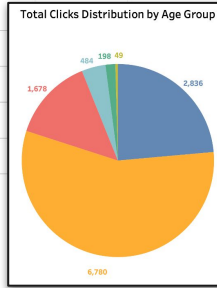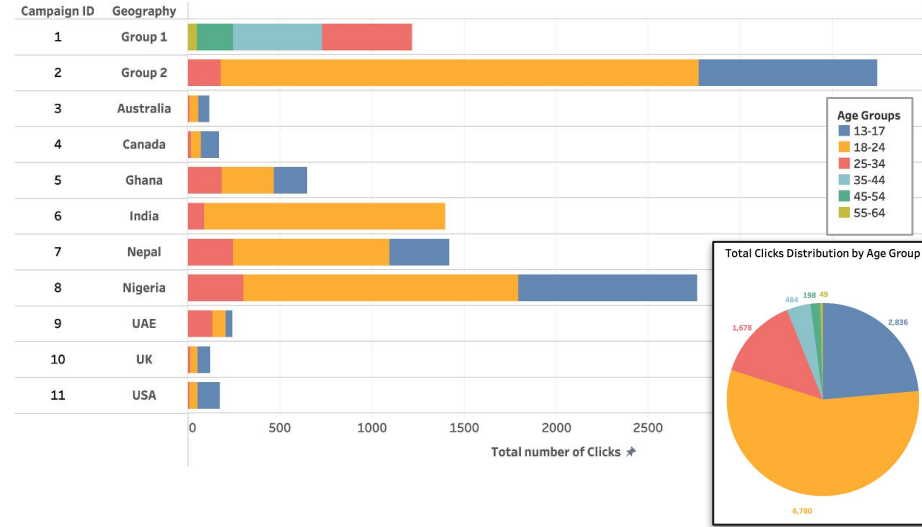| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----|---|---|---|---|---|---|---|---|---|----|----|
| 13-17 | | Freq.: 1.7 | Freq.: 1.2 | Freq.: 1.4 | Freq.: 1.7 | | Freq.: 3.2 | Freq.: 1.5 | Freq.: 1.3 | Freq.: 1.2 | Freq.: 1.1 |
| 18-24 | | Freq.: 1.3 | Freq.: 1.0 | Freq.: 1.2 | Freq.: 1.2 | Freq.: 1.2 | Freq.: 1.9 | Freq.: 1.3 | Freq.: 1.1 | Freq.: 1.1 | Freq.: 1.1 |
| 25-34 | Freq.: 2.0 | Freq.: 1.2 | Freq.: 1.0 | Freq.: 1.1 | Freq.: 1.2 | Freq.: 1.1 | Freq.: 2.0 | Freq.: 1.2 | Freq.: 1.2 | Freq.: 1.1 | Freq.: 1.1 |
| 35-44 | Freq.: 1.8 | | | | | | | | | | |
| 45-54 | Freq.: 2.2 | | | | | | | | | | |
| 55-64 | Freq.: 2.1 | | | | | | | | | | |

Scale of Frequency
- 1.0
- 1.5
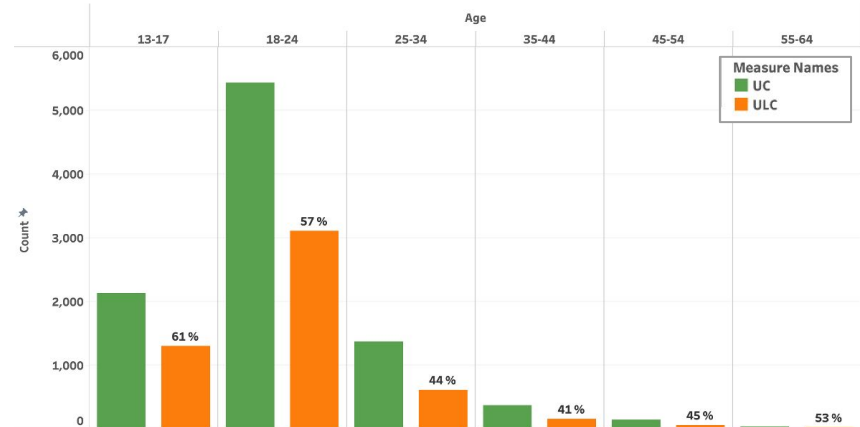- 2.0
- 2.5
- 3.2

# Data Analysis -

# Clicks



1. **Campaigns 2, 8** and the **18-24 age group** clicked on ad the **most**.

2. Effectiveness assessment **by age** is challenging due to **the limited data** for age groups **over 35**.

3. **Most** (around 50%) **people** tend to **click on the link after watching** the ad.

\* **Clicks:** Total number of Clicks on the campaign's ad
\* **Unique Clicks (UC):** Number of people who clicked the link
\* **Unique Link Clicks (ULC):** Number of people who saw and clicked

### Total Clicks by Campaign/Geography and Age Group

| Campaign ID | Geography |
|---|---|
| 1 | Group 1 |
| 2 | Group 2 |
| 3 | Australia |
| 4 | Canada |
| 5 | Ghana |
| 6 | India |
| 7 | Nepal |
| 8 | Nigeria |
| 9 | UAE |
| 10 | UK |
| 11 | USA |

Age Groups
- 13-17
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64

Total number of Clicks

### Total Clicks Distribution by Age Group

2,836 · 6,780 · 1,678 · 484 · 198 · 49

### Comparison of Unique Click (UC) and Unique Link Click (ULC) by Age Group

Measure Names
- UC
- ULC

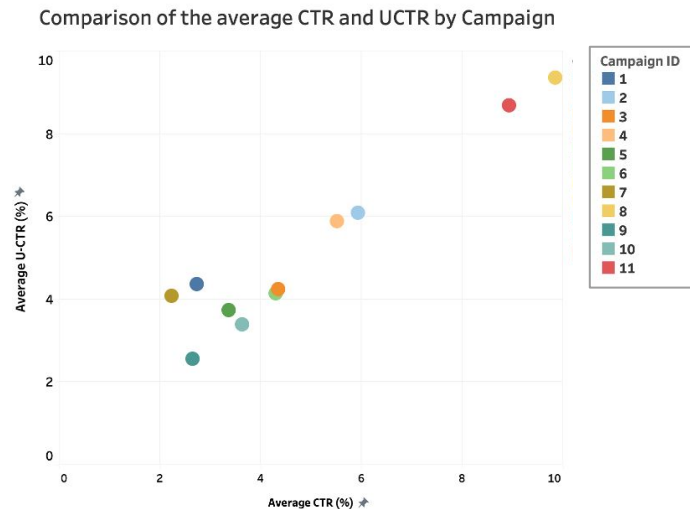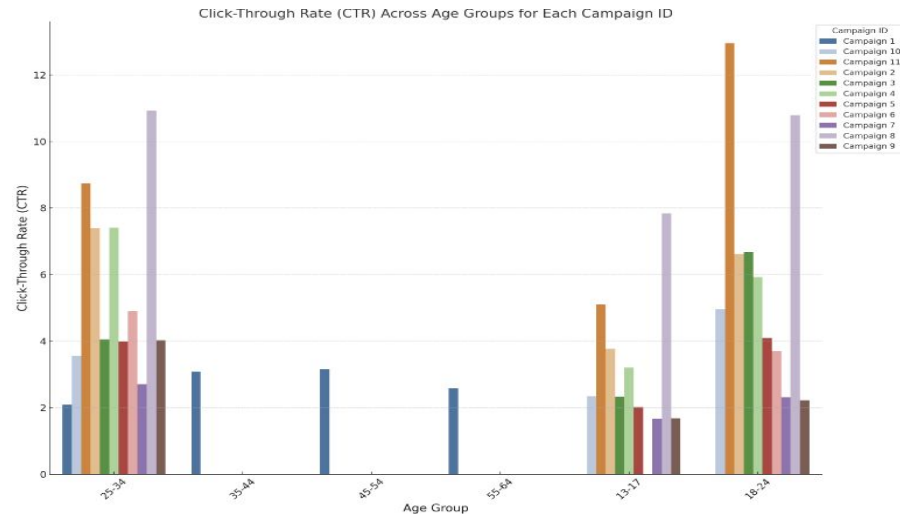| Age | 13-17 | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 |
|---|---|---|---|---|---|---|
| ULC % | 61 % | 57 % | 44 % | 41 % | 45 % | 53 % |

# Data Analysis -

## CTR / UCTR

1. The **higher CTR** between 18 and 34 age groups indicates **more clicks per Impressions** relatively. It is difficult to compare groups over 35 due to limited data.

2. When examining CTR and UCTR by campaign, **campaigns 8 and 11** stand out with the highest values, signifying **a greater proportion of viewers clicking** on the ad compared to others.

\* **Clicks-Through Rate (CTR)** = Clicks / Impressions * 100 (%)
\* **Unique Clicks-Through Rate (UCTR)** = UC / Reach * 100 (%)



Click-Through Rate (CTR) Across Age Groups for Each Campaign ID


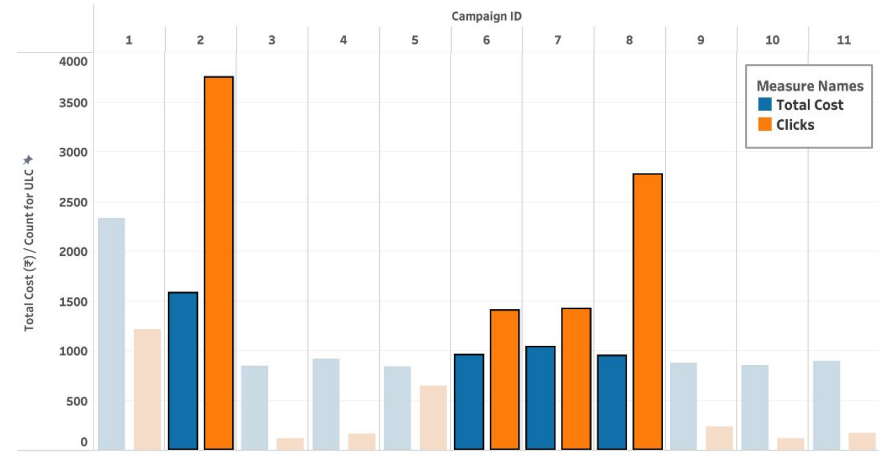
Comparison of the average CTR and UCTR by Campaign
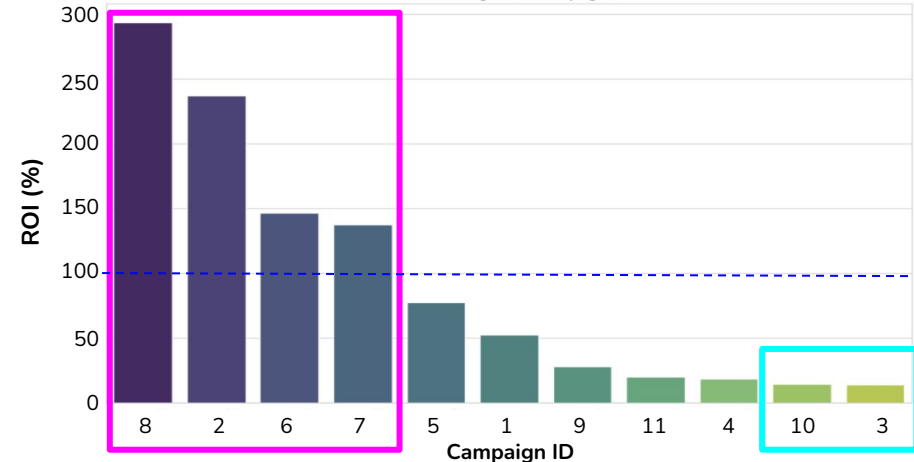
# Data Analysis -

# Cost vs Clicks

1. **Campaigns 2, 6, 7, and 8** generated more clicks than the advertising cost (assuming 1₹ per click).

2. **Return on Investment (ROI)** Ranking indicates these campaigns achieved ROI values **exceeding 100%**, indicating their **cost-effectiveness**.

3. **Campaigns 3 and 10** show the **lowest** ROI values.

* **ROI** = Clicks/Total Cost (Currency) * 100



Comparison of Total Ad Cost and Total Clicks by Campaign



ROI Rankings for All Campaigns

# Data Analysis -
# Ineffective Ads

1. Campaigns 3 and 10 exhibit **higher CPC and CPR** values compared to others.

2. **Campaign 3** has the highest **Cost per LC** at **₹23.11**, followed by **Campaign 10** at **₹18.65**.

3. A **higher the cost** per click/ULC indicates **lower ad effectiveness**.

* **Cost per Click (CPC)** = Total cost / Clicks (₹)
* **Cost per Result (CPR)** = Total cost / ULC (₹)
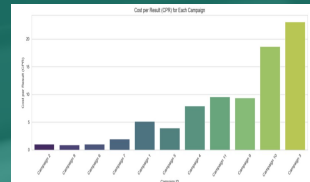
## Comparison of Cost per Click (CPC) and Cost per Result (CPR)
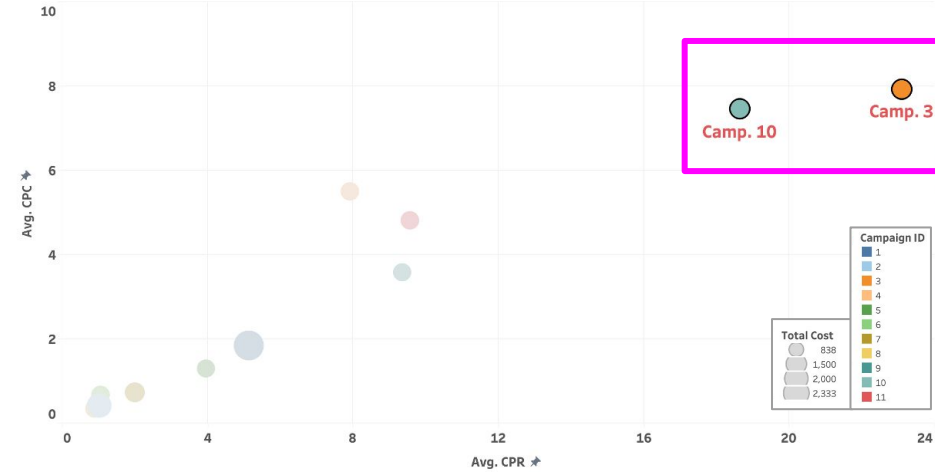


## Cost per Link Click by Campaign

| | | | |
|---|---|---|---|
| Campaign 3 ₹ 23.11 | Campaign 11 ₹ 9.57 | Campaign 9 ₹ 9.35 | Campaign 4 ₹ 7.93 |
| Campaign 10 ₹ 18.65 | Campaign 1 ₹ 5.13 | Campaign 5 ₹ 3.97 | Campaign 7 ₹ 2.00 |
| | | | Campaign 6 ₹ 1.06 |

Total cost
838 — 2,333

# Conclusion

- This **project** focused on assessing the **effectiveness of the "SUPERHERO U"** advertised on Facebook across **11 campaigns**.

- **Age group analysis limitation** was observed, with only half of the groups (over 35) present in **Campaign 1.**

- Clear insights into advertising efficiency emerged when considering **total investment costs**. **: Campaigns 8, 2, 6, and 7** showed **high ROI**, indicating **cost-effectiveness**. Conversely, **Campaigns 3 and 10**, with **elevated CPR**, were **deemed inefficient** due to high cost per click.

- **In conclusion**, we recommend **terminating Campaigns 3 and 10** to improve overall ROI and cost-effectiveness.