WEEK 2 ASSIGNMENT

AD CAMPAIGN ANALYSIS

Group 1 Team 2

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Exclusion of Ad Campaign: Campaign 3

INTRODUCTION

Welcome to our data analysis project, centering on data visualization. With meticulous consideration, we have opted to exclude Campaign 3 from our study. In this exploration, we endeavor to present compelling visualizations that substantiate our decision. By analyzing key performance metrics and comparing them with other campaigns, we aim to provide robust evidence supporting the exclusion of Campaign 3, enhancing the accuracy and reliability of our findings.

PROJECT GOAL

The project's goal is to conduct a data analysis focused on data visualization, aiming to validate the exclusion of Campaign 3 from the study. Through comprehensive visualizations and in-depth performance metrics, we seek to present compelling evidence supporting our decision. By comparing Campaign 3 with other campaigns, this analysis will ensure the accuracy and credibility of our findings, guiding informed marketing strategies.

METHODOLOGY

The methodology involves a multi-step approach to support the exclusion of Campaign 3. Firstly, we gather and preprocess the campaign data. Next, we perform exploratory data analysis to identify relevant performance metrics. We then create data visualizations, comparing Campaign 3 with the other campaigns across key indicators. Utilizing statistical tests and visualization techniques, we aim to present evidence substantiating the exclusion decision. Rigorous validation and peer review ensure the credibility and reliability of our findings, empowering data-driven marketing strategies and decision-making.

After completing the initial analysis, we proceed with the following steps to strengthen our argument for the exclusion of Campaign 3:

- Conduct comparative analysis: In-depth comparison of Campaign 3 with the remaining campaigns will involve examining click-through rates, cost per click, cost per result, frequency, and other relevant metrics to uncover performance disparities and validate the exclusion.
- Interactive Visualizations: To enhance stakeholder engagement and understanding, interactive Visualizations will be developed, enabling users to explore the data, manipulate visualizations, and gain actionable insights for strategic decision-making.

Campaign Cost
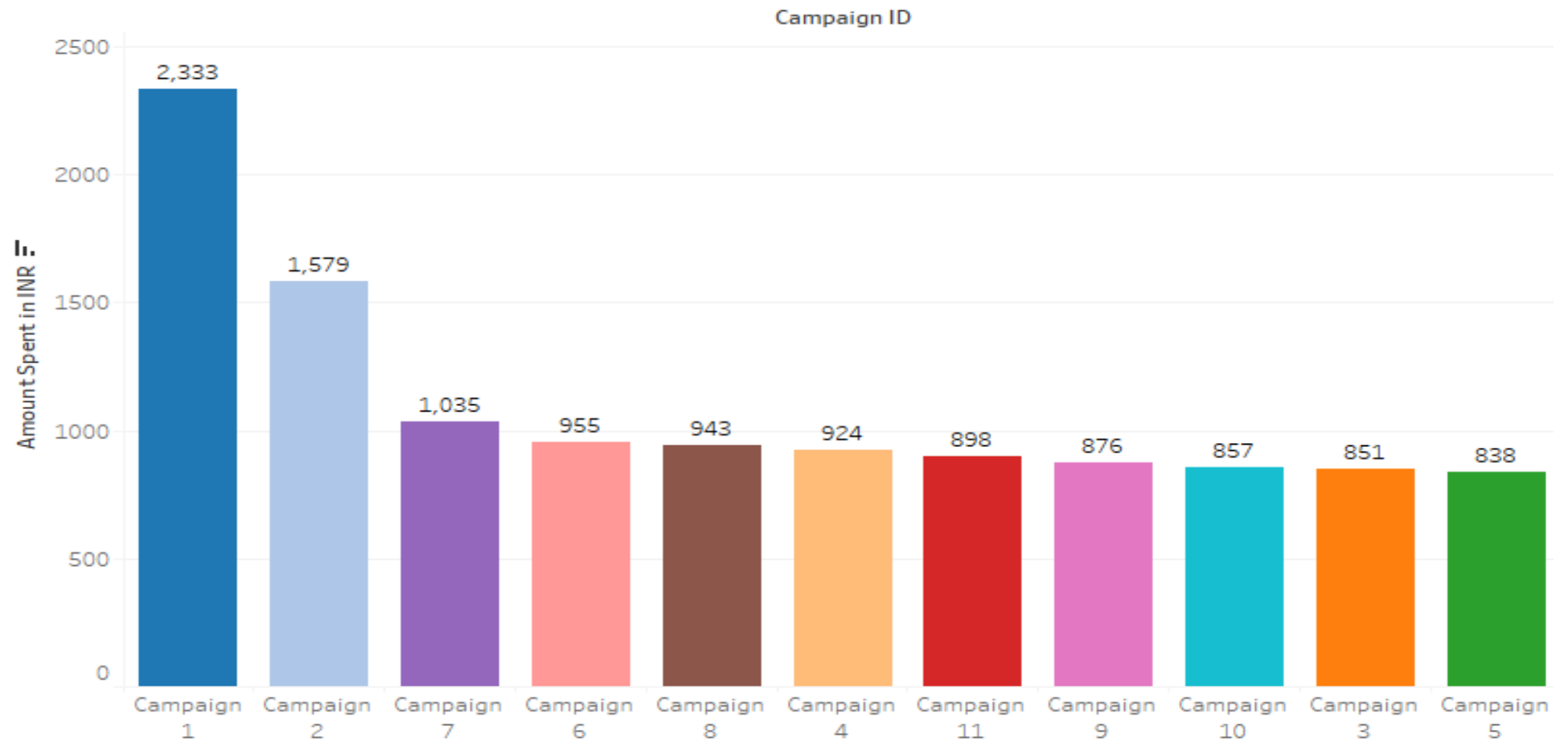
Campaign ID
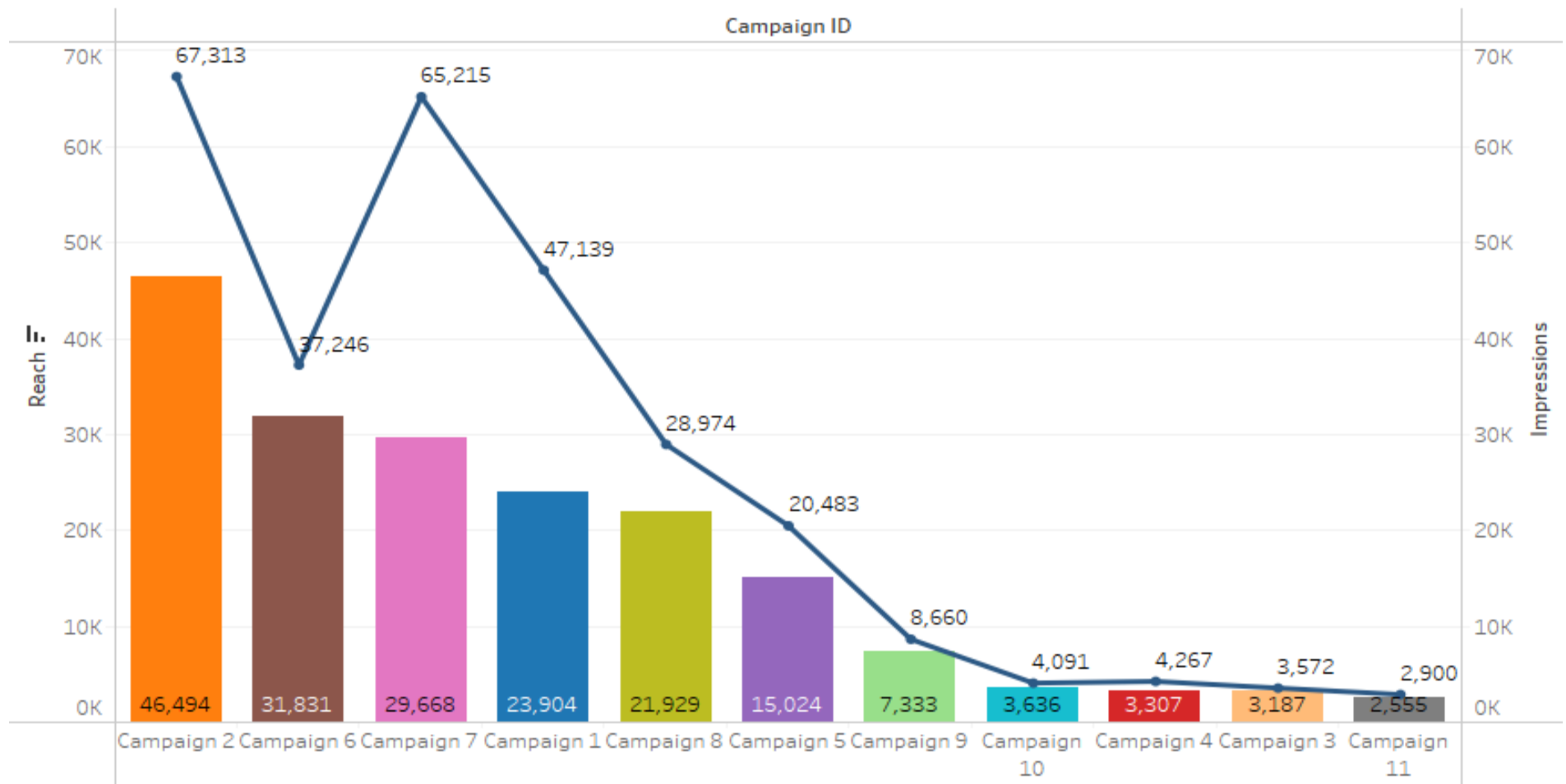

- Campaign 1 has the highest spend with 2333 INR, while Campaign 5 has the lowest spend with 838 INR.
- Campaign 3 has a spend of 851 INR, which is lower than the majority of other campaigns, except for Campaigns 5 which have even lower spend.

Reach of Each Campaign
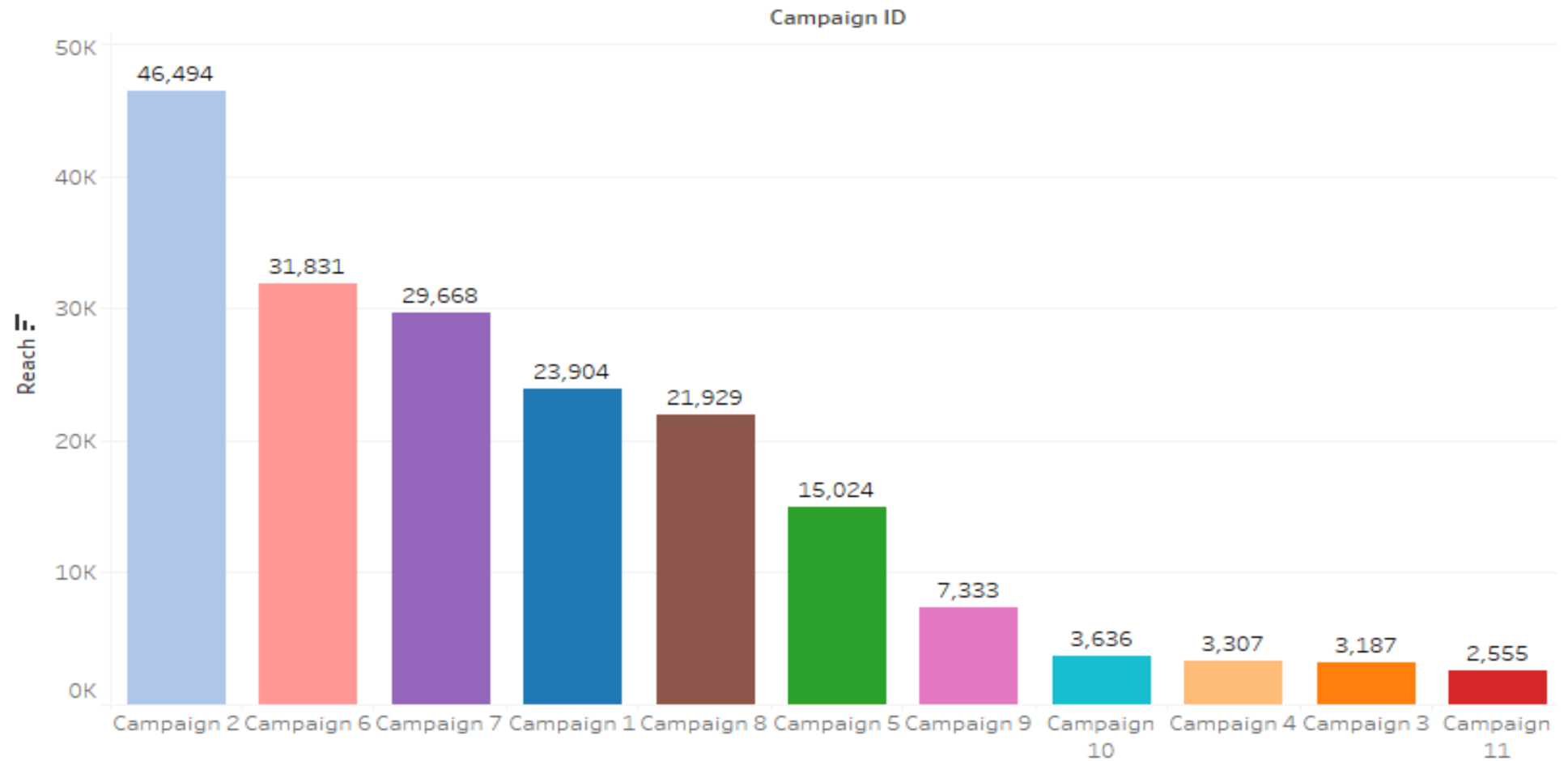
- Campaign 2 excels with 46,494 reach, while Campaign 11 lags with the lowest reach of 2,555 among all campaigns.
- Campaign 3 (3,187) outperforms 4, 10, 9, and 11 in reach but lags behind others (2, 5, 8, 1, 7, 6, and 2), showing room for improvement.

Reach and Impression

Campaign ID

| Campaign	Reach	Impressions
Campaign 2	46,494	67,313
Campaign 6	31,831	37,246
Campaign 7	29,668	65,215
Campaign 1	23,904	47,139
Campaign 8	21,929	28,974
Campaign 5	15,024	20,483
Campaign 9	7,333	8,660
Campaign 10	3,636	4,091
Campaign 4	3,307	4,267
Campaign 3	3,187	3,572
Campaign 11	2,555	2,900

- Campaign 2 leads in reach (46,494) and impressions (67,313), while Campaign 6 and 7 follow closely, excelling in engagement.
- Campaign 3 ranks second lowest in both reach (3,187) and impressions (3,572), trailing other campaigns except for Campaign 11. Improvement needed.

Amount Spent for every Campaign Location

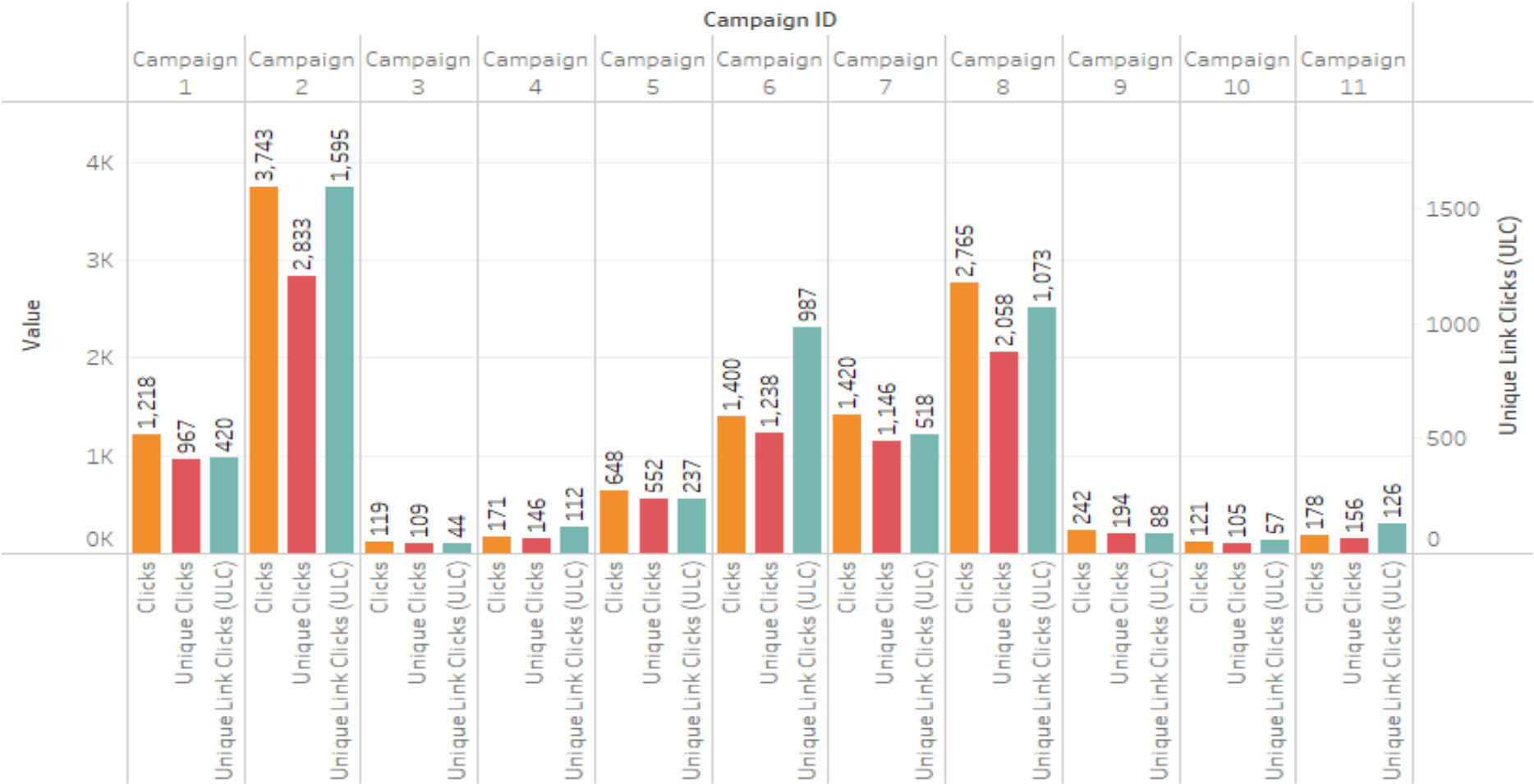|				
Group 1 (Australia, Canada, United Kingdom, Ghana, Nigeria, Pakistan, United States) 2,333	Nepal 1,035	Canada 924	USA 898	UAE 876
	India 955	UK 857		Ghana 838
Group 2 (Australia, Canada, United Kingdom, Ghana, Niger, Nigeria, Nepal, Pakistan, Thailand, Taiwan) 1,579	Nigeria 943	Australia 851		

- Group 1 has the highest spend with 2333 INR, while Ghana has the lowest spend with 838 INR.
- Campaign 3, which represents Australia, has a spend of 851 INR. It's higher than the spends of Ghana but lower than any other locations.

Campaigns vs Age Group
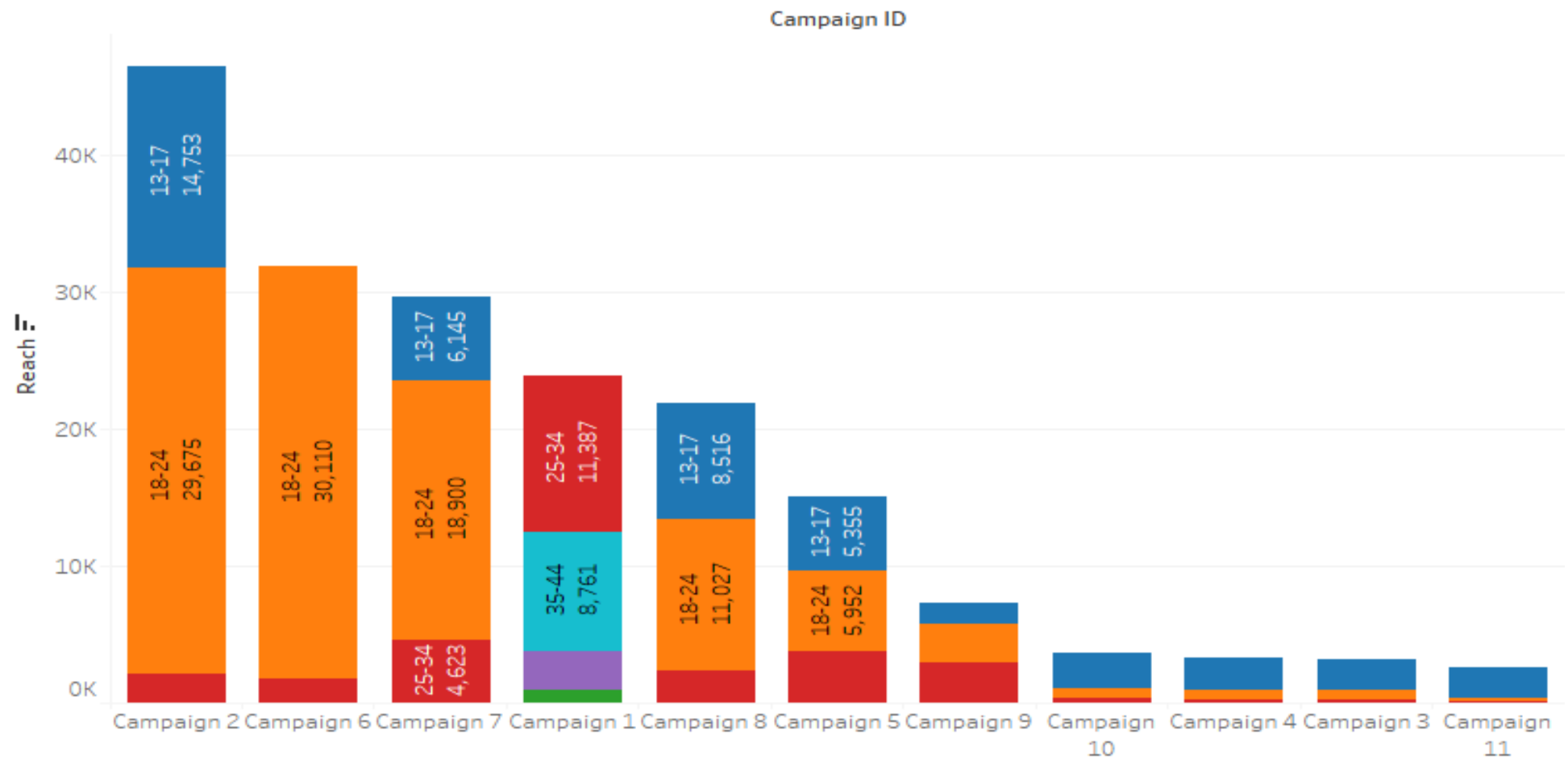
Campaign ID

- Campaign 2 has the highest overall reach, followed by Campaign 6, Campaign 7, Campaign 1, and Campaign 8. The remaining campaigns (5, 9, 10, 4, and 11) have progressively lower reach.
- Campaign 3 (Australia) has lower reach than others: 704 (18-24), while Campaign 2 and 6 exceed 29k. Lowest in 13-17, 25-34 age groups.

Click vs Unique Click vs Link Click

Campaign ID

Campaign 1 — Clicks: 1,218 | Unique Clicks: 967 | Unique Link Clicks (ULC): 420
Campaign 2 — Clicks: 3,743 | Unique Clicks: 2,833 | Unique Link Clicks (ULC): 1,595
Campaign 3 — Clicks: 119 | Unique Clicks: 109 | Unique Link Clicks (ULC): 44
Campaign 4 — Clicks: 171 | Unique Clicks: 146 | Unique Link Clicks (ULC): 112
Campaign 5 — Clicks: 648 | Unique Clicks: 552 | Unique Link Clicks (ULC): 237
Campaign 6 — Clicks: 1,400 | Unique Clicks: 1,238 | Unique Link Clicks (ULC): 987
Campaign 7 — Clicks: 1,420 | Unique Clicks: 1,146 | Unique Link Clicks (ULC): 518
Campaign 8 — Clicks: 2,765 | Unique Clicks: 2,058 | Unique Link Clicks (ULC): 1,073
Campaign 9 — Clicks: 242 | Unique Clicks: 194 | Unique Link Clicks (ULC): 88
Campaign 10 — Clicks: 121 | Unique Clicks: 105 | Unique Link Clicks (ULC): 57
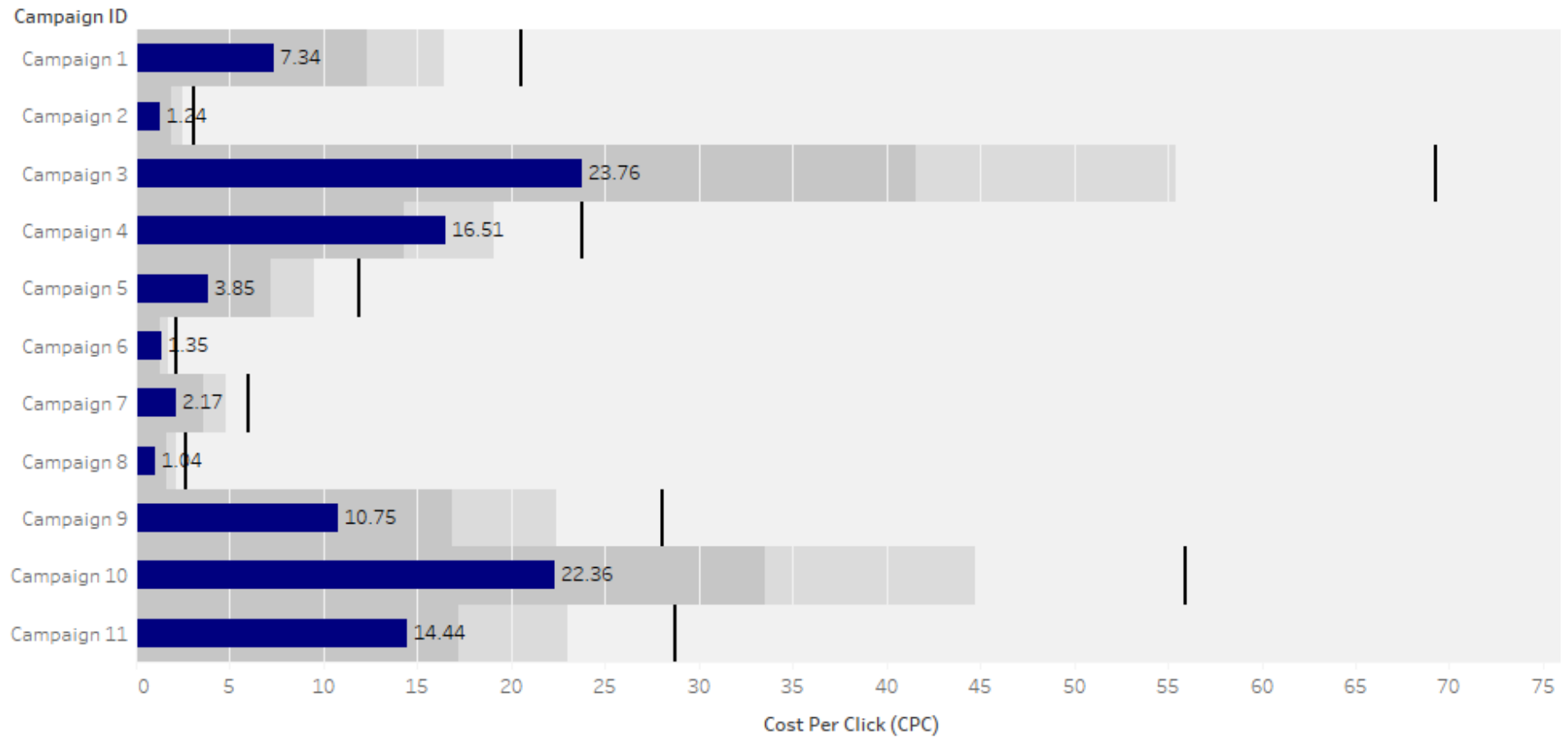Campaign 11 — Clicks: 178 | Unique Clicks: 156 | Unique Link Clicks (ULC): 126

- Campaign 2 excels with 3743 clicks, 2833 unique clicks, and 1595 unique link clicks, indicating superior user engagement.
- Campaign 3 has the lowest clicks (119), unique clicks (109), and unique link clicks (44), suggesting challenges in user engagement.

Click Through Rate vs Unique Click Through Rate
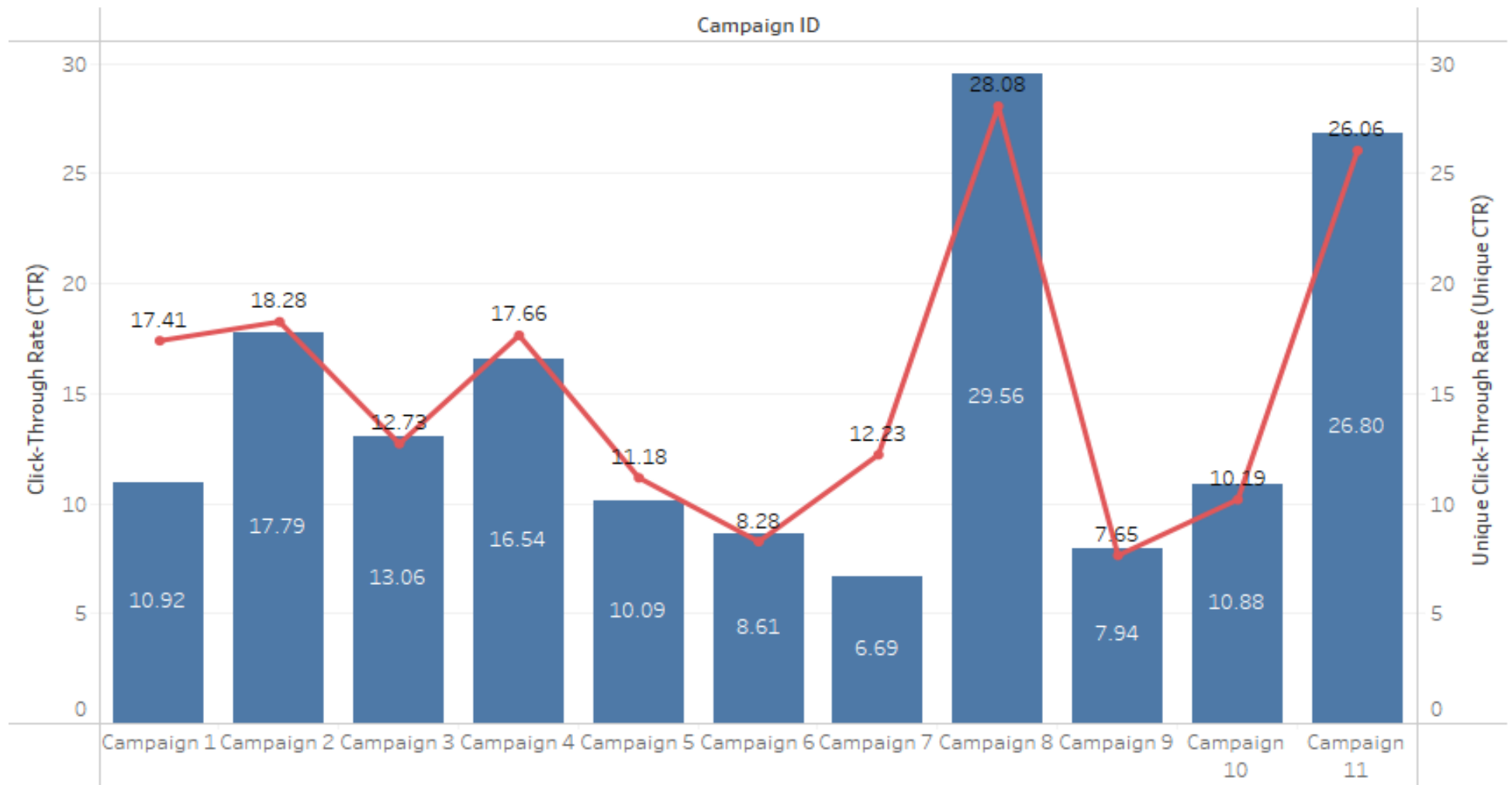
- Campaign 8 and 11 excel in CTR and Unique CTR, while Campaign 7 lags, needing improvement in user engagement.
- Campaign 3 (Australia) outperforms 5, 6, 9, and 7 in CTR and Unique CTR but lags behind 8, 11, 2, 4, 1, 10, showing potential for improvement

Cost Per Click vs Cost per Result

Campaign ID

Cost Per Click (CPC)

Campaign	Value
Campaign 1	7.34
Campaign 2	1.24
Campaign 3	23.76
Campaign 4	16.51
Campaign 5	3.85
Campaign 6	1.35
Campaign 7	2.17
Campaign 8	1.04
Campaign 9	10.75
Campaign 10	22.36
Campaign 11	14.44

- Campaign 8 (CPC: 1.04 INR) and Campaign 6 (CPR: 2.11 INR) are the most cost-effective, driving clicks and results efficiently.
- Campaign 3 has high cost per click (23.76 INR) and cost per result (69.32 INR), less cost-effective and efficient than other campaigns.

CONCLUSION

In conclusion, our data analysis project centered on data visualization successfully substantiates the exclusion of Campaign 3 from our study. Through a meticulous examination of performance metrics and a wide array of visualizations, we have unveiled significant disparities between Campaign 3 and other campaigns. The evidence gathered, based on statistical tests and comprehensive visual representations, solidifies our decision to exclude Campaign 3. These findings will serve as a reliable foundation for strategic marketing initiatives, empowering data-driven decision-making and fostering improved campaign effectiveness.

TEAM ROLES AND CONTRIBUTION IN WEEK 2

Fathima Farhan k k (Team Lead): Maintained the collaboration and organized the team properly. For the week 2 assignment, assigned the tasks to each member of the team as well. Created one data visualization to support our recommendation from week 1 analysis and refined the design of visualization using Tableau. Did the editing part and compilation.

Rahat Parveen (Team Lead): Guided and supported the team while efficiently completing assigned tasks.

Neha Mathew (Project Lead): Scheduling the meeting and taking notes during the meeting, also maintaining the assignment doc and any other relevant information. Provides guidance, support, and motivation to team members, sets expectations, and ensures that everyone understands their roles and responsibilities.

Kavya (Project Manager): Assigns tasks to team members based on their skills, strength and expertise and ensures that each team member understands their responsibilities and roles in their project. Facilitate effective communication between team members and ensure that everyone is informed about project updates, changes and important decisions.

Balaganesh (Project Manager): Actively participated in team meetings,gaining a comprehensive understanding of the project's objectives and scope. Effectively contributed to the team's efforts and ensuring seamless coordination among team members. Also, Engaged in constructive interactions with other team members, Effective communication and motivation are vital to keep the team engaged and focused on achieving project milestones.

Aritra Basu (Project Scribe): Recorded action items in meetings, tracks progress, and updates their status in subsequent meetings for accountability. Conducted analysis, created visualizations, edited documents.

Koushal Chouhan (Project Scribe): Recorded action items assigned to team members during meetings and track the progress of these action items and update their status in subsequent meetings to ensure accountability and follow-through.

Gabriel Okwundu (Project Lead): Ensured that the Team Charter for the week 1 deliverable was completed. I made sure to gain a thorough understanding of the assignments that are to be carried out and learn from the more experienced team members. I also have and will continue to be assertive and passive to ensure that the deliverables are completed to the best of the team's ability and put in efforts to ensure perfect team work.

Siddivinayaka Sahukari (Project Lead): Ensured that the mistakes in the week-1 project are resolved and worked on the assignments effectively. Improving analytical and visualization skills through the assignments from day to day. Active participant of the team meetings and ensures that the assigned tasks are completed.

Jayadeep kommuri(Project Lead): holding the group accountable for meeting deadlines and ensuring that the project deliverables are being met.