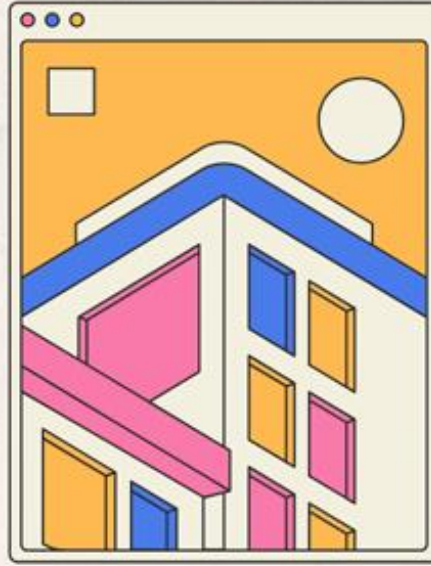
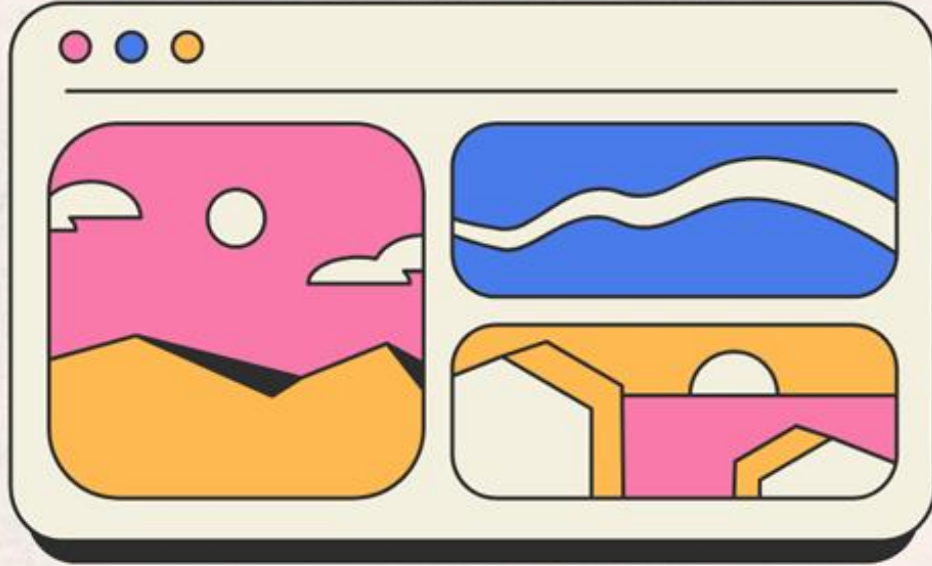
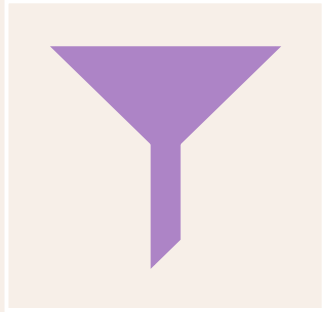


Social Media Marketing



Problem & Proposal



Problem:

No single dashboard to analyze all marketing campaigns.

Data is spread across multiple channels (Email, YouTube, Instagram, Google Ads, Facebook).

Hard to compare campaign types and audience behavior.



Proposal:

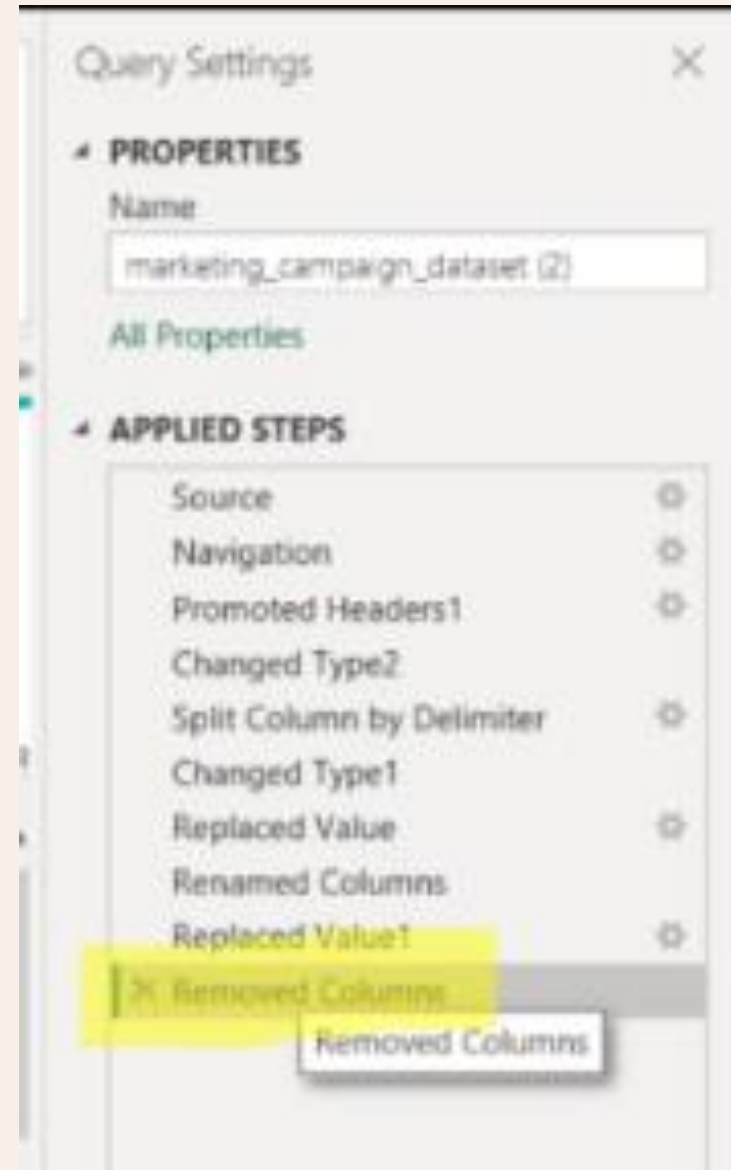
Build an interactive Power BI dashboard for multi-channel marketing analytics.

Combine all campaign data in one model.

Provide KPIs such as CTR, ROI, Conversion Rate & Engagement Score.

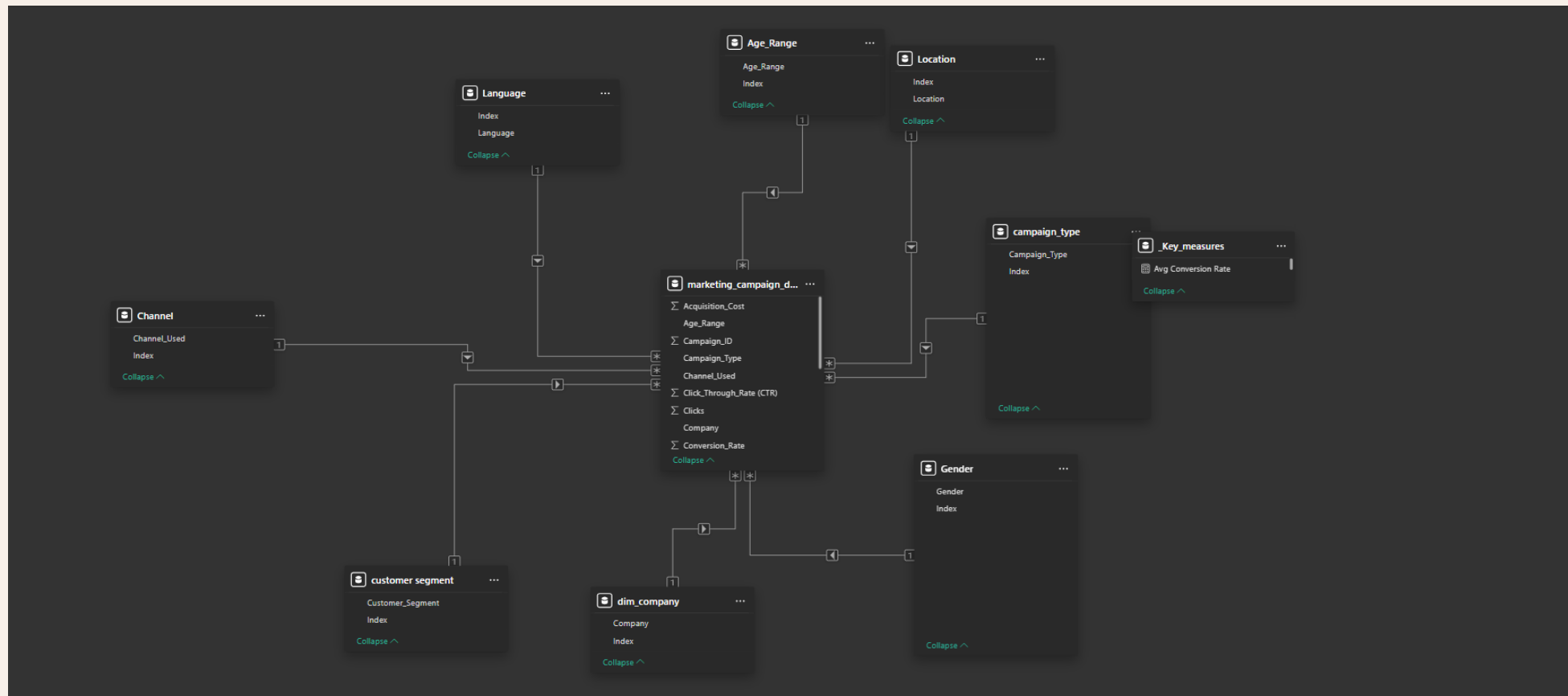
Data Source & Cleaning

- Dataset: Marketing Campaign
- Source: Kaggle
- Cleaning Steps:
 - Handled nulls.
 - Fixed data types (Dates, Numbers).
 - Removed unwanted columns.



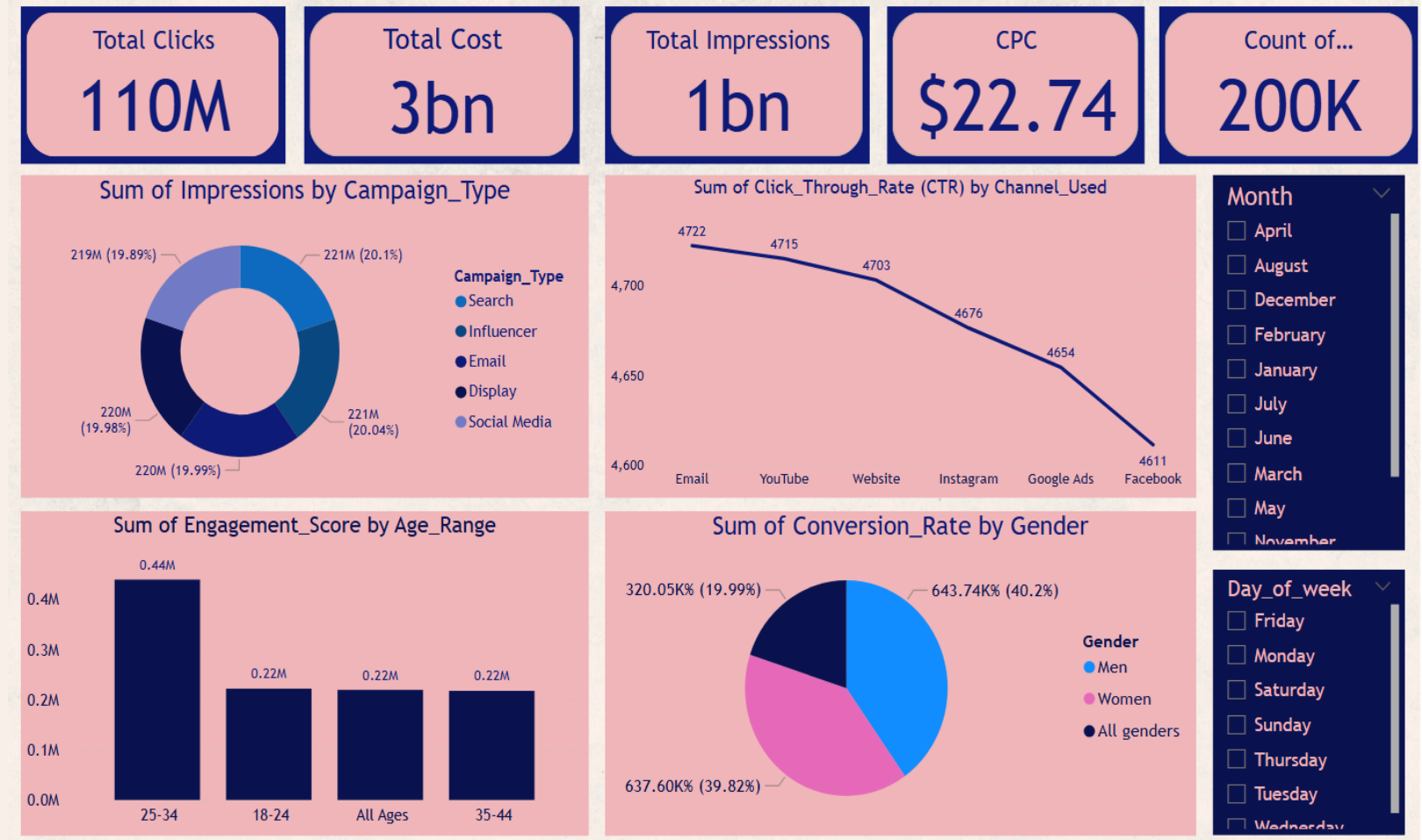
Data Model (Star Schema)

- The central Fact Table is **marketing_campaign_data**, containing all the numeric metrics like cost, clicks, CTR, conversions, etc. Around it we have dimension tables such as Channel, Age Range, Location, Campaign Type, Gender, and Company.



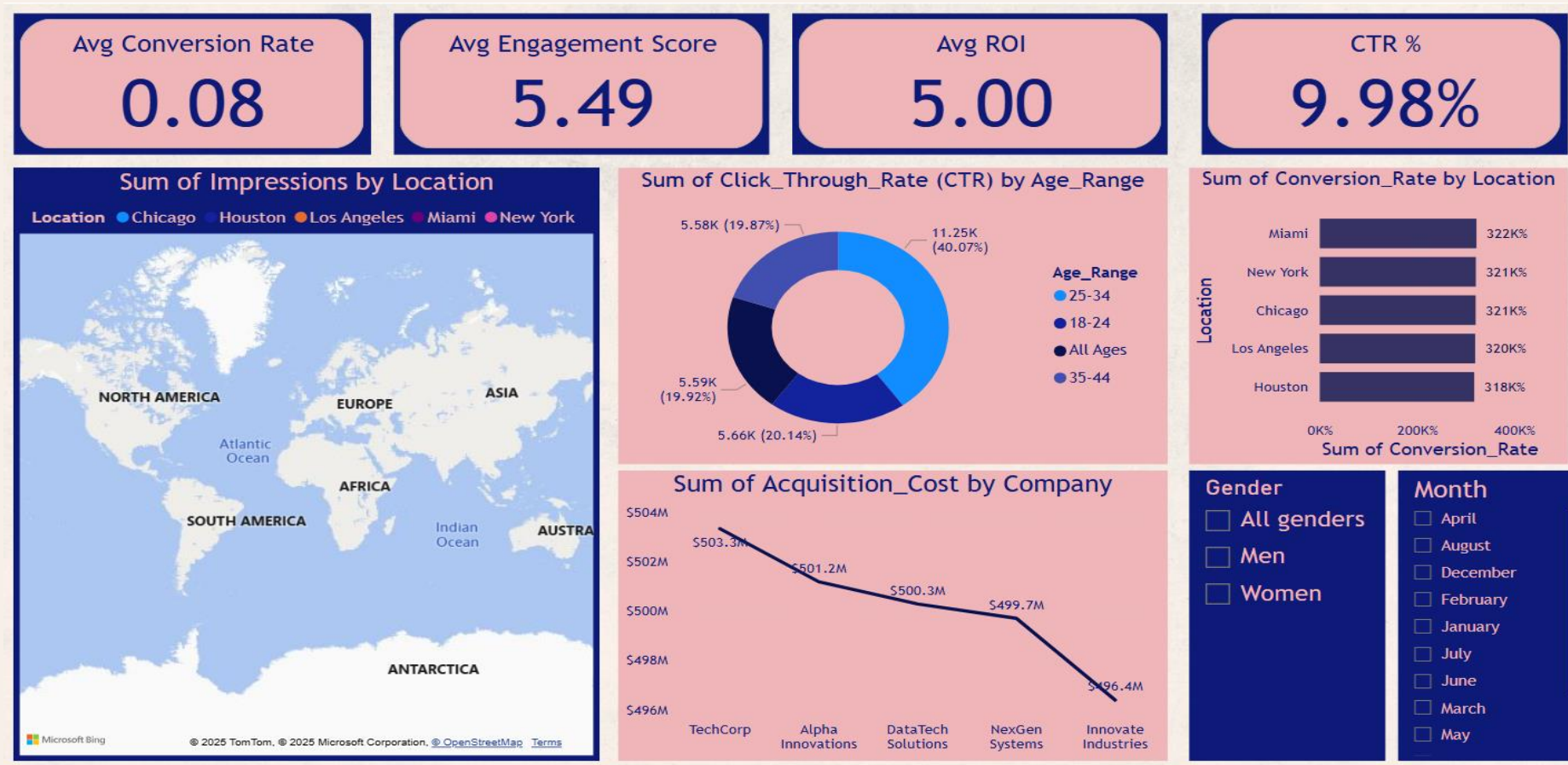
Executive Summary (Page 1)

- Shows overall performance: Total Clicks, Total Cost, Total Impressions.
- Includes main KPIs like CTR%, CPC, Avg ROI.
- Provides high-level view for executives.



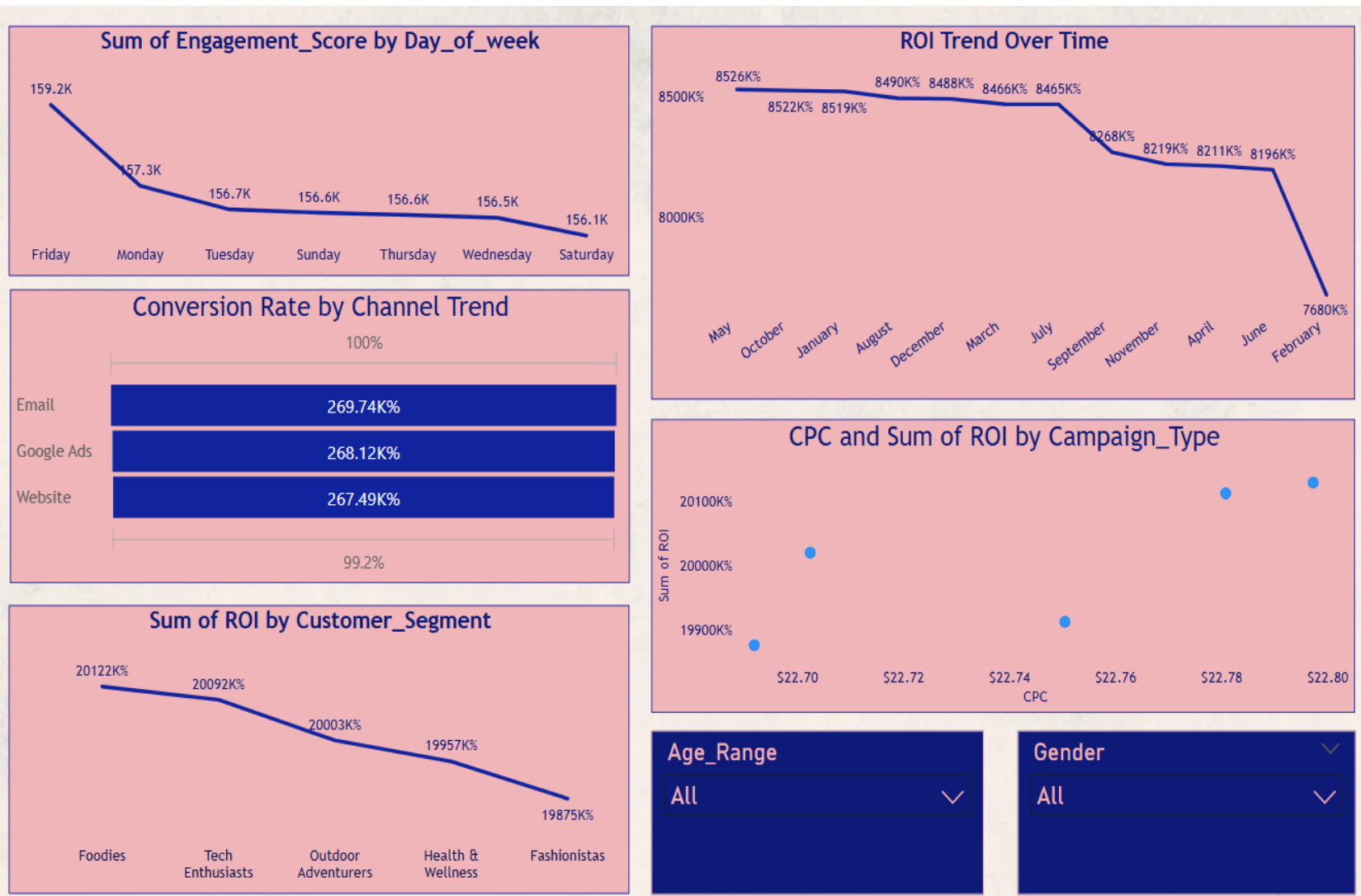
Campaign Analysis (Page 2)

- This analysis shows which campaign types perform best in terms of impressions and which channels drive higher CTR. It helps evaluate the effectiveness of each marketing channel and identify high-performing areas.



Audience (Page 3)

- This page shows detailed campaign performance insights: Engagement is highest on Fridays, Email has the strongest conversion rate, ROI decreases over time, and Foodies/Tech Enthusiasts are the top-performing customer segments. The CPC vs ROI chart helps identify which campaign types deliver the best return for the lowest cost.



Challenges & Solutions

Challenge	Solution
Inconsistent data formats	Used Power Query to standardize data
Choosing the right visuals	Used 3-page layout (Executive, Campaign, Audience)
Understanding KPIs formulas	Created DAX measures and validated them

Results & Insights

Email is the strongest channel with the highest CTR and conversion rate. Age group 25–34 shows the highest engagement, while Miami and New York lead in impressions and conversions. ROI has slightly declined over time, but Foodies and Tech Enthusiasts remain the most profitable segments. CPC is stable across campaigns, with some campaigns achieving high ROI at relatively low cost.

Future Work

01

Connect the model to real-time data via APIs.

02

Add predictive analysis for best-performing channels.

03

Automate refresh schedule in Power BI Service.

04

Apply Row-Level Security for different managers.

GitHub & Delivery

[haneen35/Data-analysis-depi-project](#)