Digital Marketing Metrics & Campaign Analysis

I was inspired to do this project in my own time from my research about Trainline and the position of Junior MarTech Analyst. Also, I tried to simulate real-world MarTech analysis using SQL and Tableau.

For this project I used a data set from Kaggle named ‘’Digital Marketing Metrics & KPIs to Measure (SQL) ‘’ and contains 308 rows and 11 columns, representing the daily performance of different marketing campaigns. Also, it includes key fields such as campaign_name, category, impressions, clicks, leads, orders, revenue, and mark_spent. The dataset enables the calculation of essential marketing KPIs such as ROMI (Return on Marketing Investment), CPC (Cost Per Click), CPL (Cost Per Lead), CAC (Customer Acquisition Cost), AOV (Average Order Value), and conversion rates, which are crucial for evaluating campaign effectiveness and guiding strategic decision-making.

The primary goal of this project was to evaluate the performance and efficiency of marketing campaigns by analyzing their ROI (Return on Investment), cost-effectiveness, and user engagement. The project focuses on answering key business questions such as:

- Which campaigns deliver the best return?
- Which marketing channels are most cost-efficient?
- When are customers most active?

By calculating and visualizing relevant KPIs, the project can help in data-driven decisions which can optimize marketing strategies and improve customer acquisition efficiency.

To begin the analysis, I first imported the dataset into MySQL Workbench by creating a custom database and defining a table schema that matched the dataset's structure. After verifying a successful data load, I wrote SQL queries to calculate KPIs including ROMI, CPC, CPL, CAC, Conversion Rates and AOV. Then, I grouped and aggregated these metrics across different dimensions such as campaign names, marketing categories and dates to uncover patterns, trends, and top-performing campaigns.

To visualize my results, I exported the KPIs outputs into Tableau and built a clean, interactive dashboard that shows the most actionable insights from the data.

The 1st chart in the dashboard, “Weekly Revenue vs. Marketing Spend” shows us how campaign performance over time. This comparison helps quickly identify weeks where marketing spend was efficient and where it underperformed.

The 2nd chart, “CPC / CPL / CAC by Category” breaks down the average cost efficiency of each marketing channel. I calculated three core metrics CPC (Cost Per Click), CPL (Cost Per Lead) and CAC (Customer Acquisition Cost) and grouped by campaign category (e.g., influencer, media, search, social). This grouped bar chart reveals which types of campaigns deliver the most value for money. For example, influencer marketing had the lowest CAC. These insights are critical for

marketing teams aiming to optimize spend by channel and allocate budget toward the most cost-effective sources of traffic, leads, and conversions.

The 3rd chart, “Top Campaigns by ROMI” identifies the most efficient marketing campaigns based on their Return on Marketing Investment. ROMI was calculated as (Revenue - Spend) / Spend, then averaged per campaign using SQL. We visualized the top 10 campaigns with the highest ROMI with the “youtube_blogger” campaign to have average ROMI of 3.07, which practically means that returned over 3 times of the spent amount. This chart empowers marketing teams to focus on campaigns that consistently deliver high returns while reevaluating underperformers.

The 4rth and final chart, “ROMI by Category” summarizes the average return on marketing investment across each campaign type. Using SQL, I calculated the average ROMI per category, with the total revenue and total spend. The insights showed us that the influencer campaigns stand out with a ROMI of 1.7, which is more than twice the money initially invested. This high-level comparison supports strategic decisions around which types of campaigns to prioritize in future planning and highlights influencer marketing as the most profitable channel in this dataset.

In conclusion, this project offered valuable insights into the effectiveness and efficiency of various digital marketing campaigns. By calculating and analyzing key performance metrics like ROMI, CPC, CPL, and CAC, I was able to identify top-performing campaigns and channels. The Tableau dashboard brings these insights to life, making it easy to communicate findings with stakeholders.

Tableau-MarketingCampaignPerformanceDashboard