Marketing Campaign Performance Analysis using Power BI

Role

Marketing Data Analyst Designed and developed a fully interactive Power BI dashboard to monitor and optimize the performance of digital marketing campaigns across multiple channels.

Project Objective

To enable real-time tracking and strategic decision-making by providing a comprehensive, visual analysis of marketing campaigns. The goal was to uncover actionable insights related to budget efficiency, audience engagement, and revenue contribution across digital platforms such as Google, Facebook, Instagram, and Email marketing.

Tools & Techniques

Tool Used: Microsoft Power BI (Desktop)

Data Source: marketing_campaign_dataset (cleaned and pre-processed)

Visualizations: KPI Cards, Line Charts, Clustered Column Charts, Stacked Bars, Scatter Plots, Slicers

Techniques: DAX Measures, Time Intelligence, Aggregation, Filtering, ALLEXCEPT & CALCULATE, Trend Analysis

Metrics Evaluated: ROI, Revenue, Cost, CPA, CPC, Conversions, Clicks, Impressions

Core KPIs and DAX Measures

Total Cost = SUM(marketing_campaign_dataset[Cost])

Total Revenue = SUM(marketing_campaign_dataset[Revenue])

ROI = DIVIDE([Revenue] - [Cost], [Cost])

CPC = DIVIDE([Cost], SUM(Clicks))

CPA = DIVIDE([Cost], SUM(Conversions))

Conversion Rate = DIVIDE(SUM(Conversions), SUM(Clicks)) * 100

Monthly ROI = CALCULATE(AVG([ROI]), ALLEXCEPT([Date].[Month]))

Key Visual Reports Developed

1. Campaign-Level Financial Overview - Visuals: KPI Cards, Bar Charts, Table
2. Channel-Wise Efficiency Dashboard - Visuals: Bar Charts, Filter Slicers

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3. Monthly Trend Analysis - Visuals: Line Charts

4. Conversion & Acquisition Analysis - Visuals: Stacked Bars, Scatter Plot

Strategic Insights Derived

- Google Ads showed the highest ROI and lowest CPA

- Instagram campaigns were inefficient (high spend, low conversion)

- Facebook had good engagement but moderate ROI

- ROI peaks were observed in June and September

- Top 5 campaigns drove over 60% of total revenue

Recommendations for Marketing Optimization

- Reallocate budget to high-ROI campaigns (Google Search - Product B)

- A/B test creatives on Facebook and Email

- Pause or restructure Instagram campaigns

- Prioritize campaigns during June and September

- Set alerts for CPA and ROI thresholds

Business Impact

- Empowered the marketing team with real-time decision-making tools

- Identified inefficiencies, reducing unnecessary spend

- Enabled a performance-driven campaign planning approach

- Automated monthly reporting with visual storytelling

Project Highlights

- Created over 15 custom DAX measures

- Delivered filterable, executive-friendly dashboards

- Implemented monthly trend tracking for ROI

- Provided deep channel-wise performance segmentation