Marketing Project Analysis Report

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Tools Used: Excel, Python (Anaconda), SQL, Power BI, DAX
Date: [23/05/2025]

Contents

1. Project Overview

This project involves a comprehensive analysis of XYZ Company's marketing efforts across various digital platforms. The focus was to assess the performance of multiple campaigns, advertisement types, and audience interactions, with the goal of generating actionable insights to optimize future marketing strategies.

2. Objective

- Evaluate the effectiveness of different social media platforms and ad formats.

- Measure key performance metrics such as CTR, CPC, CPA, and conversion rate.

- Identify high- and low-performing campaigns.

- Provide strategic recommendations to enhance marketing ROI.

3. Scope

- Platforms analyzed: TikTok, Instagram, Facebook

- Ad types: Video, Image, Story

- Geographic regions: Abu Dhabi, Cairo, and others

- Gender and age group segmentation

- Campaign objectives: Awareness, Conversion, Traffic

- Timeframe: [year 2024]

4. Stakeholders

- **Marketing Team** – Primary users of the insights for future strategy.

- **Data Analytics Team** – Responsible for data processing and reporting.

- **Management** – Decision-makers using recommendations to allocate budget.

5. Analysis Process

1. **Data Collection:**
   Three primary Excel files (ads, audience, campaign) were obtained from the marketing department.

2. **Data Cleaning & Preprocessing:**
   Using Python (Anaconda), data was cleaned, null values handled, and formats standardized, resulting in three refined CSV files.

3. **Data Integration:**
   The cleaned files were uploaded to SQL(by importing flat files), where relational
   mappings were created between the datasets.

4. **Data Modeling & Calculation:**
   Imported into Power BI. DAX was used to create calculated columns and measures:

- o Click-Through Rate (CTR)

CTR = (ads[Clicks] / ads[Impressions]) * 100

- o Cost Per Click (CPC)

CPC = (ads[Cost] / ads[Clicks])

- o Cost Per Acquisition (CPA)

CPA = (ads[Cost] / ads[Conversions])

- o Conversion Rate

```
Conversion Rate % =
DIVIDE(
     Ads[Conversions],
     CALCULATE(
          AVERAGE(Audience[Reach]),
          FILTER(
               Audience,
               audience[Campaign_ID] = ads[Campaign_ID]))) *100
```

- o Engagements

Total Engagements = (audience[Engagement_Rate] * audience[Reach])

Then we make data modeling by linking campaign id from ads to audience using power bi

5. **Visualization:**
   Interactive dashboards were developed in Power BI for exploratory and explanatory analysis(contains 2 sheets the first for cards and general analysis and the other for campaigns analysis)

6. KPIs and Metrics

- **CTR (Click-Through Rate)**
- **CPC (Cost Per Click)**
- **CPA (Cost Per Acquisition)**

- **Conversion Rate %**

- **Total Engagements**

- **Budget Allocation**

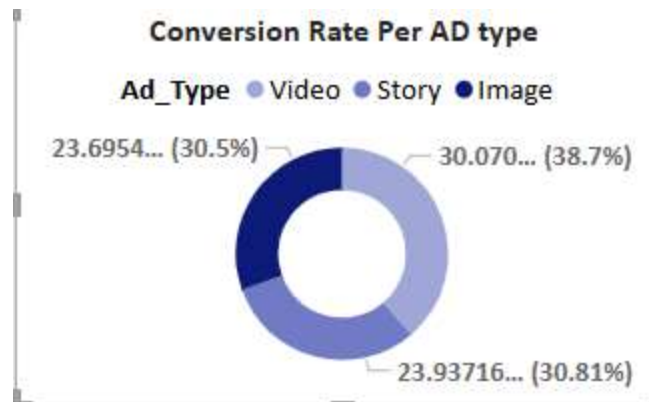- **Platform and Region Performance**

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7. Insights and Recommendations

🔍 **Key Insights:**

- **Platform Performance:**

  - TikTok has the highest **conversion rate** and lowest **CPA**, followed by Instagram and Facebook. (shown in this cluster column line chart) CPA measures how much it costs to gain one customer or complete one desired action so when it decreases it describes more money saving and increased profitability in other hand conversion rate is directly proportional to efficacy of platform finally we can say that TikTok is the best platform available.
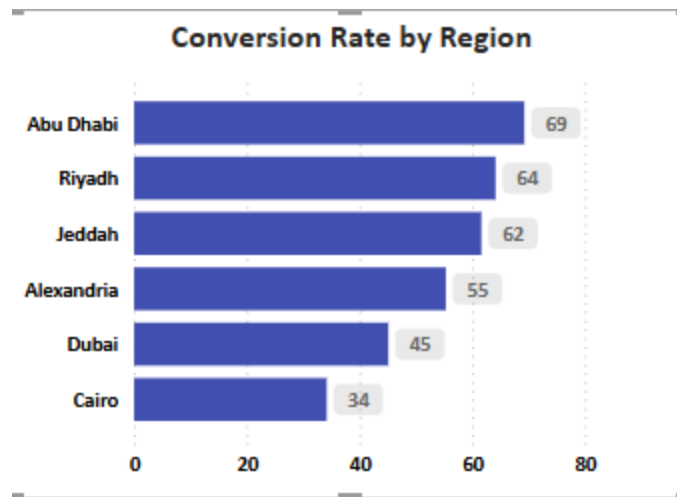

CPA and Conversion rate Per Platform

● Sum of CPA ● Sum of Conversion Rate %
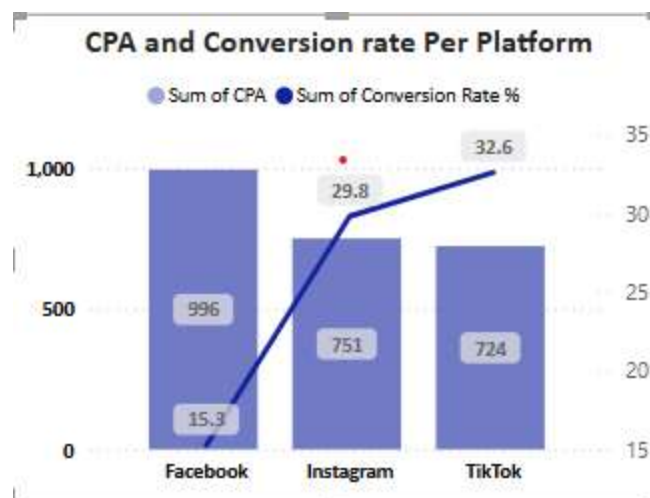
- **Ad Type Performance:**

  - **Video ads** outperform image and story formats in conversion rates by the highest percentage 38.7%   (Dounut chart)

Conversion Rate Per AD type

Ad_Type ● Video ● Story ● Image

23.6954... (30.5%)   30.070... (38.7%)

23.93716... (30.81%)

- **Regional Performance:**

  o Highest conversion rates are observed in **Abu Dhabi**, lowest in **Cairo**.(Bar chart)

Conversion Rate by Region

| Region	Value
Abu Dhabi	69
Riyadh	64
Jeddah	62
Alexandria	55
Dubai	45
Cairo	34

- **Gender Analysis:**

  o **Female users** recorded higher total engagements than males that means females reach is bigger than that of males and this encourages us to focus more on females needs .(Bar chart)

Engagement By Gender
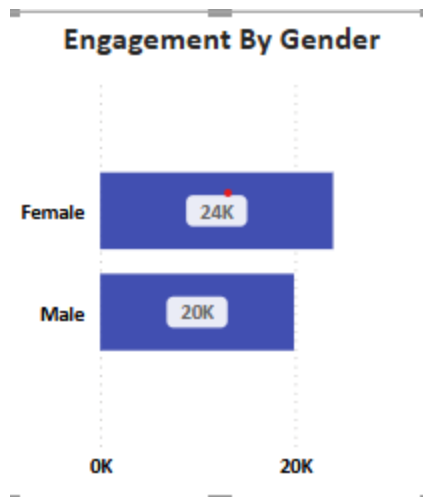
- **Age Segmentation:**

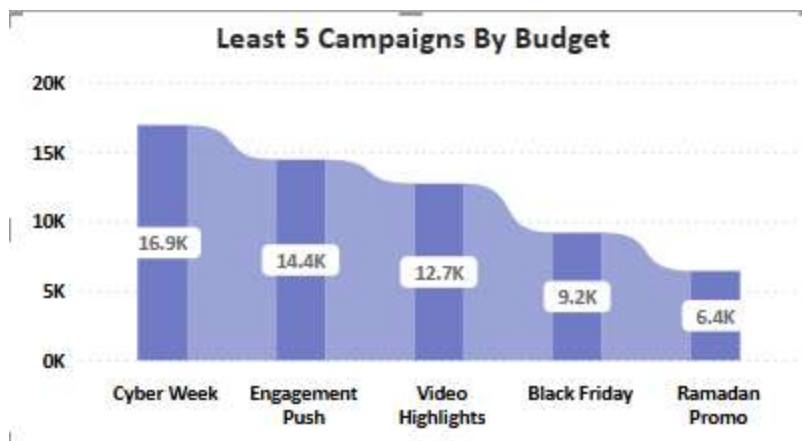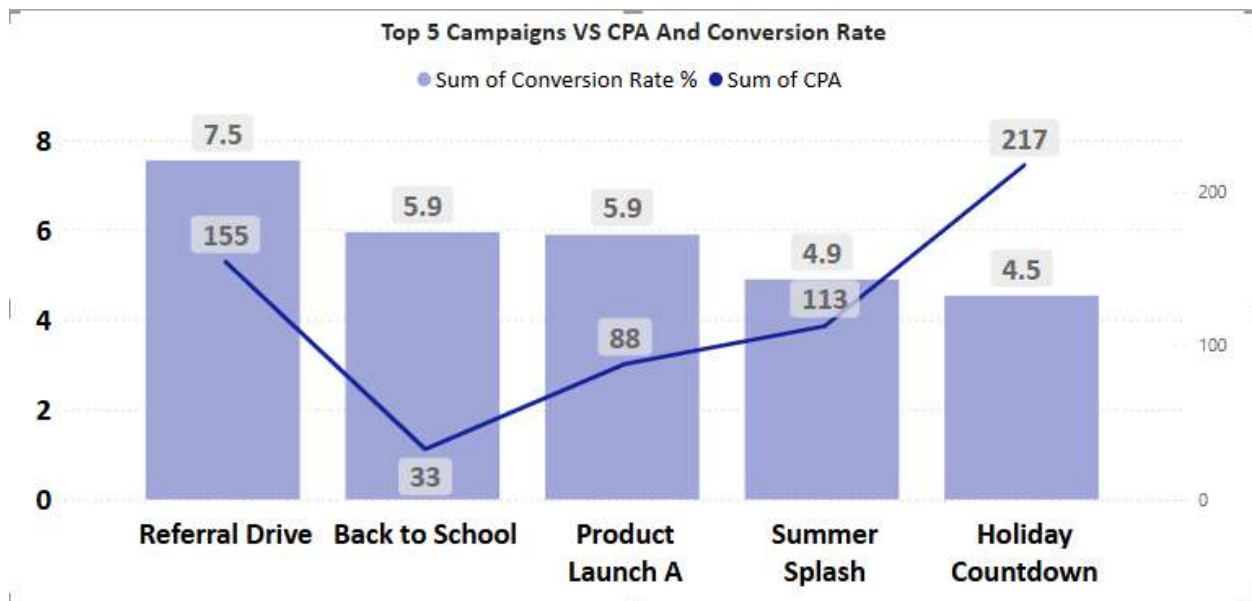 - Conversion and CTR varied significantly across age groups.(Clustered column line chart) we notice that the age group +55 has both the highest CTR and Conversion rate and this gives us hint to focus on this age category needs.

CTR and Conversion Rate Per Age Group
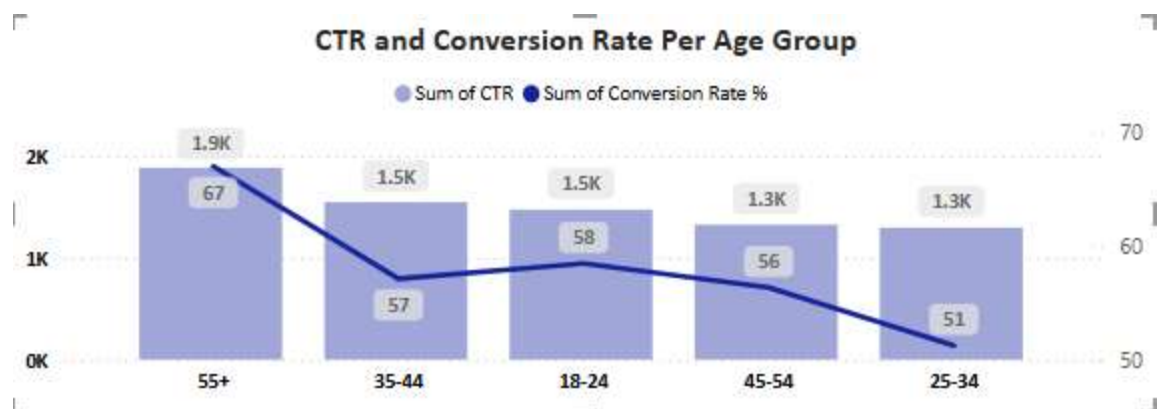
- **Campaign Evaluation:**

  - Top 5 campaigns (by conversion rate & low CPA) and bottom 5 campaigns (by budget) were identified. (Clustered column line chart + ribbon chart)

    (Referral drive – Back to school – Product launch A – Summer splash – Holiday countdown) are the most successful campaigns in accordance to highest conversion rates.

Top 5 Campaigns VS CPA And Conversion Rate

● Sum of Conversion Rate % ● Sum of CPA

	Referral Drive	Back to School	Product Launch A	Summer Splash	Holiday Countdown
Conversion Rate %	7.5	5.9	5.9	4.9	4.5
CPA	155	33	88	113	217

Least 5 Campaigns By Budget

Cyber Week	Engagement Push	Video Highlights	Black Friday	Ramadan Promo
16.9K	14.4K	12.7K	9.2K	6.4K

- **Campaign Objectives:**
  - o **Awareness campaigns** resulted in the highest conversion rates, followed by conversion and traffic campaigns.(Funnel chart)

Campaigns Conversion Rates By Objective

100%

Awareness	31.25
Conversions	25.26
Traffic	21.20

67.8%
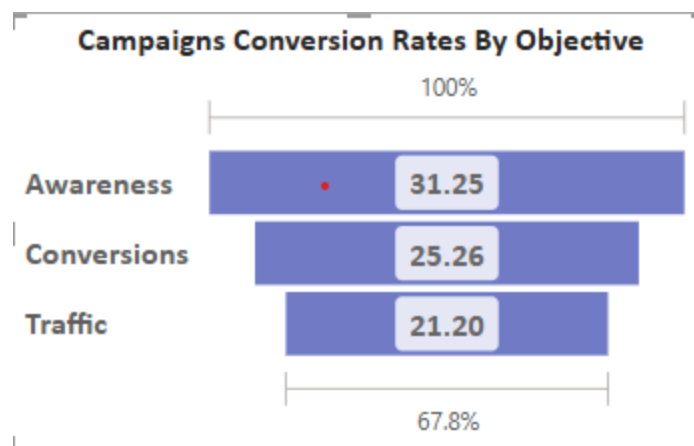
💡 Recommendations:

1. **Increase investment in TikTok** campaigns due to high ROI.

2. **Prioritize video content** over images and stories for better conversions.

3. Focus budget on high-performing regions such as **Abu Dhabi** and Gulf area.

4. Design tailored content for **female audiences** and highly engaging age groups like + 55.

5. Reevaluate low-budget campaigns—assess if underperformance is due to budget limitations or strategy misalignment.

6. Allocate more resources to **awareness-oriented** campaigns to drive conversion funnel entry.

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8. Glossary

- **CTR (Click-Through Rate):** Percentage of users who clicked on an ad.

- **CPC (Cost Per Click):** Average cost incurred for each ad click.

- **CPA (Cost Per Acquisition):** Cost to acquire a customer or conversion.

- **Conversion Rate:** Percentage of users who completed a desired action.

- **Engagement:** Interactions such as likes, comments, and shares.

- **Awareness Campaigns:** Marketing aimed at brand exposure.

- **Traffic Campaigns:** Designed to drive users to a landing page or site.

- **ROI** stands for **Return on Investment**.