

Data Strategy & Requirements Document: Meta Ads Performance Analysis

BI Analyst: Tanzil Ali Rizvi

Client/Sponsor: Hypothetical Digital Marketing Analytics Team

Purpose:

Convert stakeholder needs into data requirements for building a Power BI dashboard that analyzes the full Meta advertising performance lifecycle—from impressions to clicks, engagements, and conversions—using datasets such as ADs.csv, Campaigns_Detailed.csv, Events_AD.csv, and User_Detailing.csv.

Data Sources:

- ADs.csv – Creative-level information: ad type, media details, impressions, clicks.
- Campaigns_Detailed.csv – Campaign metadata: objective, start/end dates, targeting attributes.
- Events_AD.csv – User interactions: clicks, comments, likes, shares, purchases.
- User_Detailing.csv – Age, gender, country details for audience segmentation.
- External: Meta Ads Manager exports or Google Sheets storage.

Required Data Fields:

- Ad-level: ad_id, ad_type, impressions, clicks, spend, media_format.
- Campaign-level: campaign_id, objective, budget, frequency, platform.
- Event-level: event_type, event_timestamp, user_id, ad_id.
- User: age_group, gender, location, device_type.

Data Cleaning & Transformation Rules:

- Standardize event_type values across Events_AD.
- Convert timestamps into Date, Day, Month for trend analysis.
- Derive calculated metrics: CTR, Engagement Rate, Conversion Rate.
- Ensure one-to-many relationships: Campaign → Ads → Events.
- Handle missing demographic details through fallback categories.

Metric Definitions:

- $\text{CTR} = \text{Clicks} / \text{Impressions}$
- $\text{Engagement Rate} = \text{Engagements} / \text{Impressions}$
- $\text{Conversion Rate} = \text{Purchases} / \text{Clicks}$
- $\text{Ad Effectiveness Index} = \text{Composite score of CTR, Engagement, Conversion}$
- $\text{Funnel Drop-off \%} = \text{Stage N} / \text{Stage N-1}$

Success Criteria:

- Dashboard refreshes smoothly with accurate KPIs.
- Interactive filtering by age, gender, country, and ad type.
- Consistent definitions across datasets to avoid broken relationships.
- Clear visual storytelling for non-technical marketing stakeholders.
- Actionable insights for budget optimization and audience targeting.