

# Marketing Funnel Conversion Analysis

## *Report Summary*

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### 1. Project Overview

This project analyzes over **43,000 digital marketing campaign records** from January 2023 to June 2024. The goal is to understand where the marketing funnel loses potential customers, which segments perform best, and how to optimize budget for maximum return.

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### 2. Data & Approach

- **Data columns:** Channel, Country, Device, Ad Creative, Impressions, Clicks, Landing Page Views, Add to Cart, Purchases, Spend, Revenue
  - **Main KPIs:** Cost per Acquisition (CPA), Return on Ad Spend (ROAS), Conversion Rates at each funnel stage
  - **Process:**
    - Cleaned the data (fixed dates, removed/fixed missing and inconsistent values)
    - Calculated KPIs by segment (channel, device, country, creative)
    - Visualized drop-off, trends, and segment performance
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### 3. Key Findings

- **Biggest drop-off** is between **Impressions and Clicks**. Only ~3% of impressions turn into clicks.
- **All channels deliver similar ROAS** (about 0.3), but **YouTube has the lowest CPA**, making it most cost-effective for customer acquisition.
- **US and Taiwan** are the top markets for purchases. **Indonesia** shows high ROAS, but this is likely an outlier due to low spend.
- **Mobile devices drive the highest purchase volume**, but desktop users are a bit cheaper to acquire.
- **No strong seasonality** found, but there was a small spike in March 2024, probably due to a new campaign.

## 4. Recommendations

1. **Shift some budget to YouTube**—it's the most cost-efficient channel.
  2. **Test new creative and improve ad targeting**—to capture more clicks at the top of the funnel.
  3. **Monitor high-ROAS markets** (like Indonesia) to see if results can be repeated with higher spend.
  4. **Keep focusing on mobile**, but consider extra campaigns for desktop users to improve cost efficiency.
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## 5. Data Issues & Cleaning

- Fixed 400+ invalid dates (wrong months, fixed in Excel/Python)
  - Standardized inconsistent values (channel, country, device, creative names)
  - Filled blanks with zero where appropriate (e.g., no clicks, no purchase)
  - Documented all steps in the issue log sheet
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## 6. Conclusion

By understanding the marketing funnel, we see most losses happen early (impressions to clicks). Improving creative and targeting can increase efficiency. YouTube, mobile devices, and key markets like the US and Taiwan offer the best opportunities for better ROI.