

Marketing Campaign Effectiveness Analysis

Using Click-Through & Conversion Metrics

Made by: Alisha Rukhsar Ali



Business Context

A company is running multiple online advertising campaigns across:

- Different **ad types** (Banner, Video, Text, Native)
- Different **ad topics** (Travel, Food, Health, Fashion)
- Different **placements** (Social Media, Search Engine, Website)
- Targeting users with **different demographics** (age, gender, income, location)

However, the company is not sure where its advertising efforts are actually effective.

The goal is to evaluate campaign effectiveness and optimize future marketing spend.



Dataset Overview

The dataset contains 10,000 records representing user interactions with online advertisements across multiple digital platforms.

Each record captures demographic attributes, ad characteristics, and engagement metrics, enabling a comprehensive evaluation of marketing campaign effectiveness.

01. User Demographics: Age, Gender, Income Level, Location

02. Ad Attributes: Ad Type, Ad Topic, Ad Placement

03. Engagement Metrics: Clicks, Click-Through Rate (CTR), Conversion Rate

Key Metrics Used

To evaluate the effectiveness of marketing campaigns, the following core metrics were used:

Click-Through Rate (CTR)

CTR measures the proportion of users who clicked on an advertisement after seeing it. It serves as a key indicator of ad relevance and user engagement, helping identify which ad formats, placements, and topics attract attention.

Conversion Rate

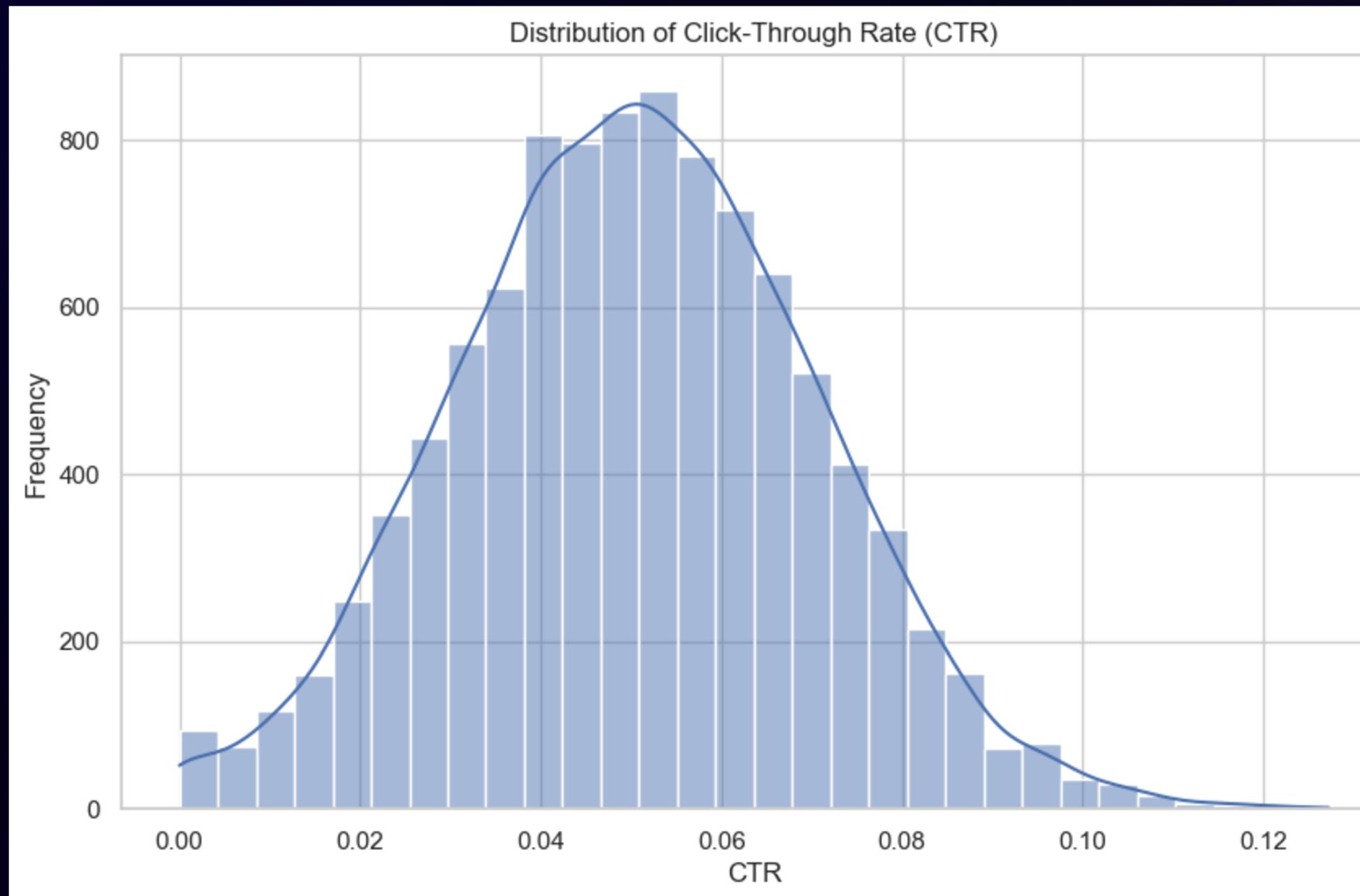
Conversion Rate represents the percentage of users who completed a desired action after clicking an ad. This metric reflects traffic quality and campaign effectiveness, ensuring that high engagement also translates into meaningful outcomes.

Click Volume

Click Volume captures the total number of clicks generated by ads across different segments. It helps distinguish between high-efficiency campaigns and high-scale campaigns, providing context alongside CTR and conversion metrics.

CTR Distribution

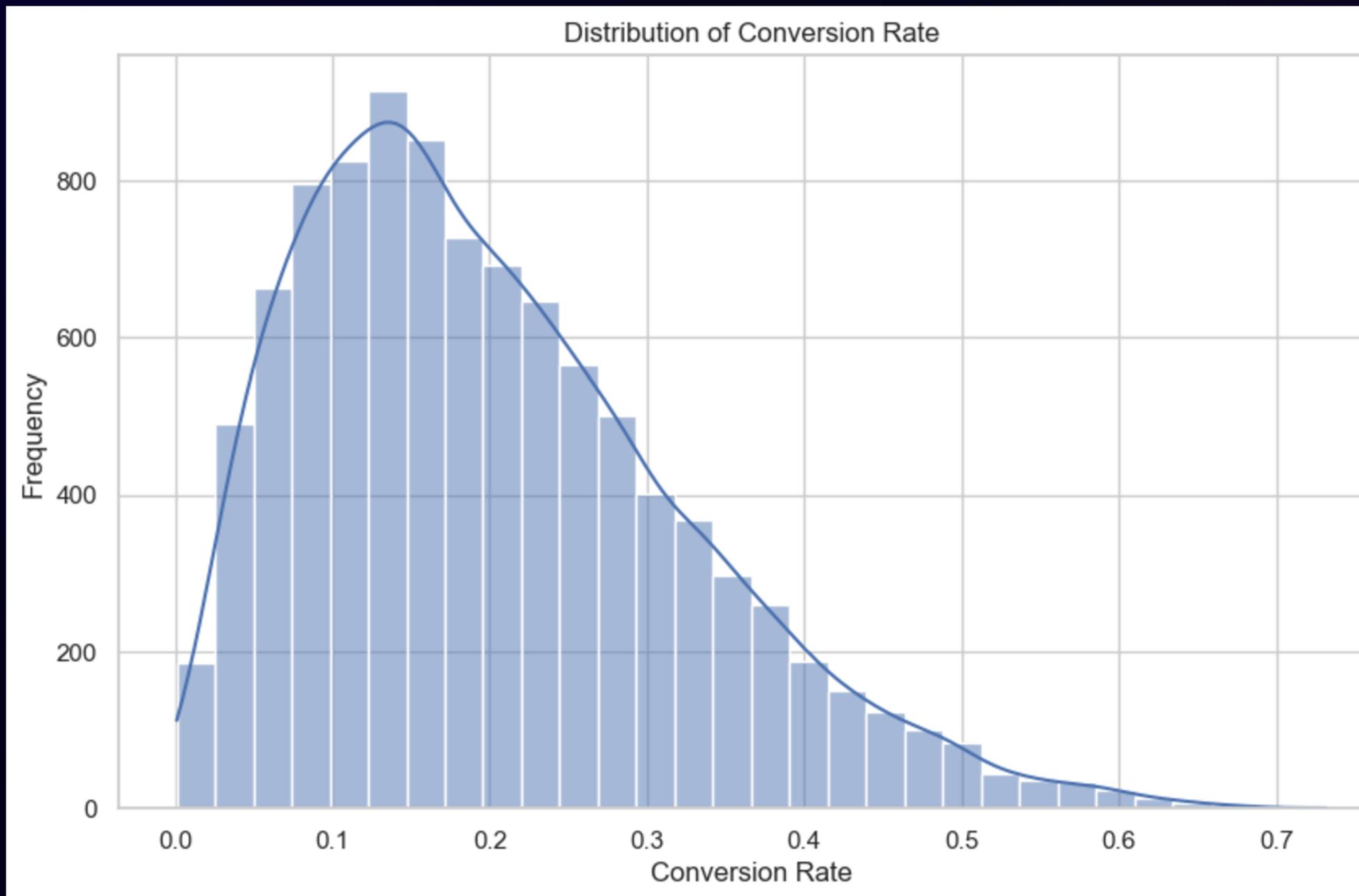
Most Campaigns Perform Within a Narrow Engagement Range



- CTR is concentrated around ~4–6%
- Extremely high CTR campaigns are rare
- Sets a realistic benchmark for engagement

Conversion Rate Distribution

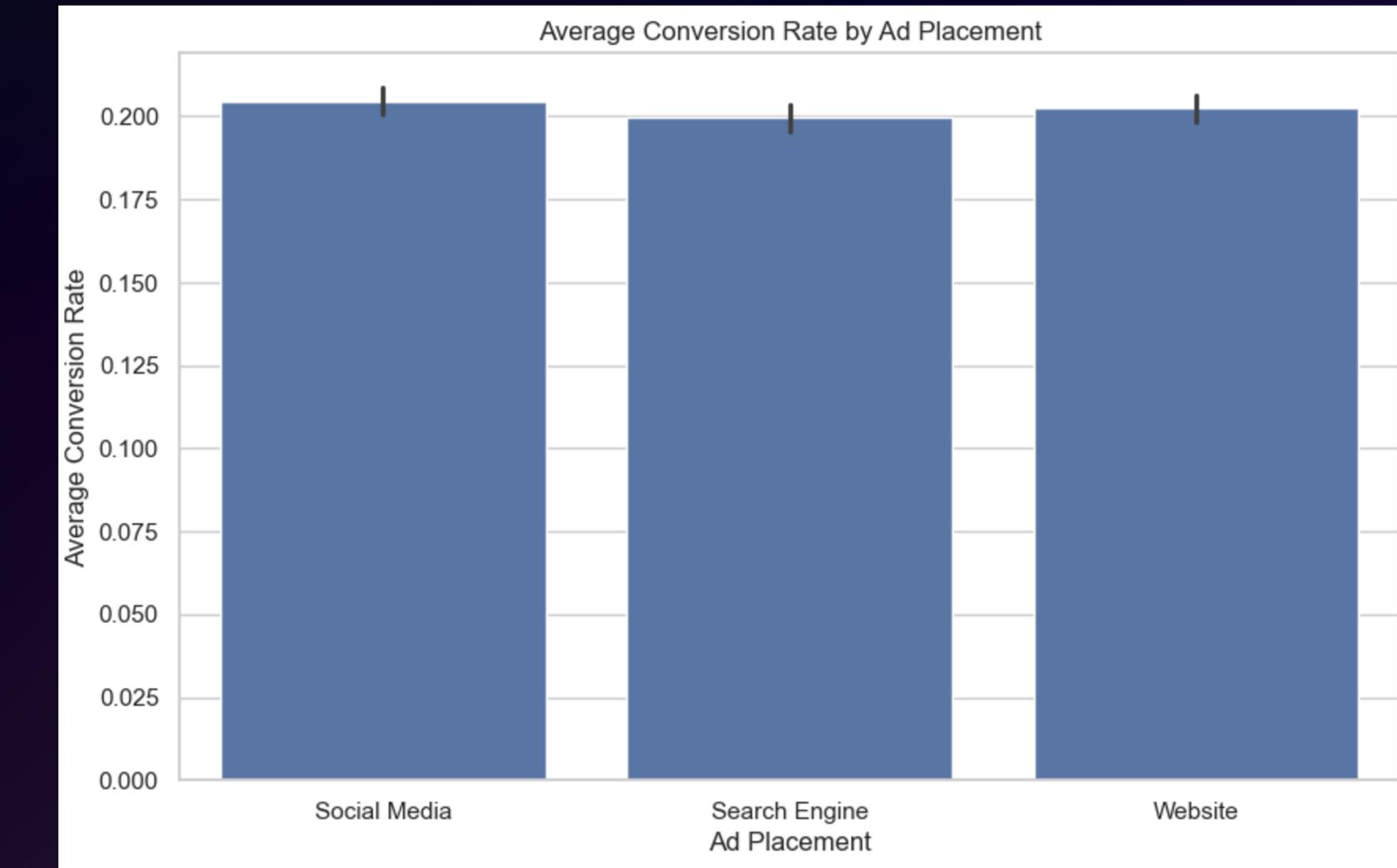
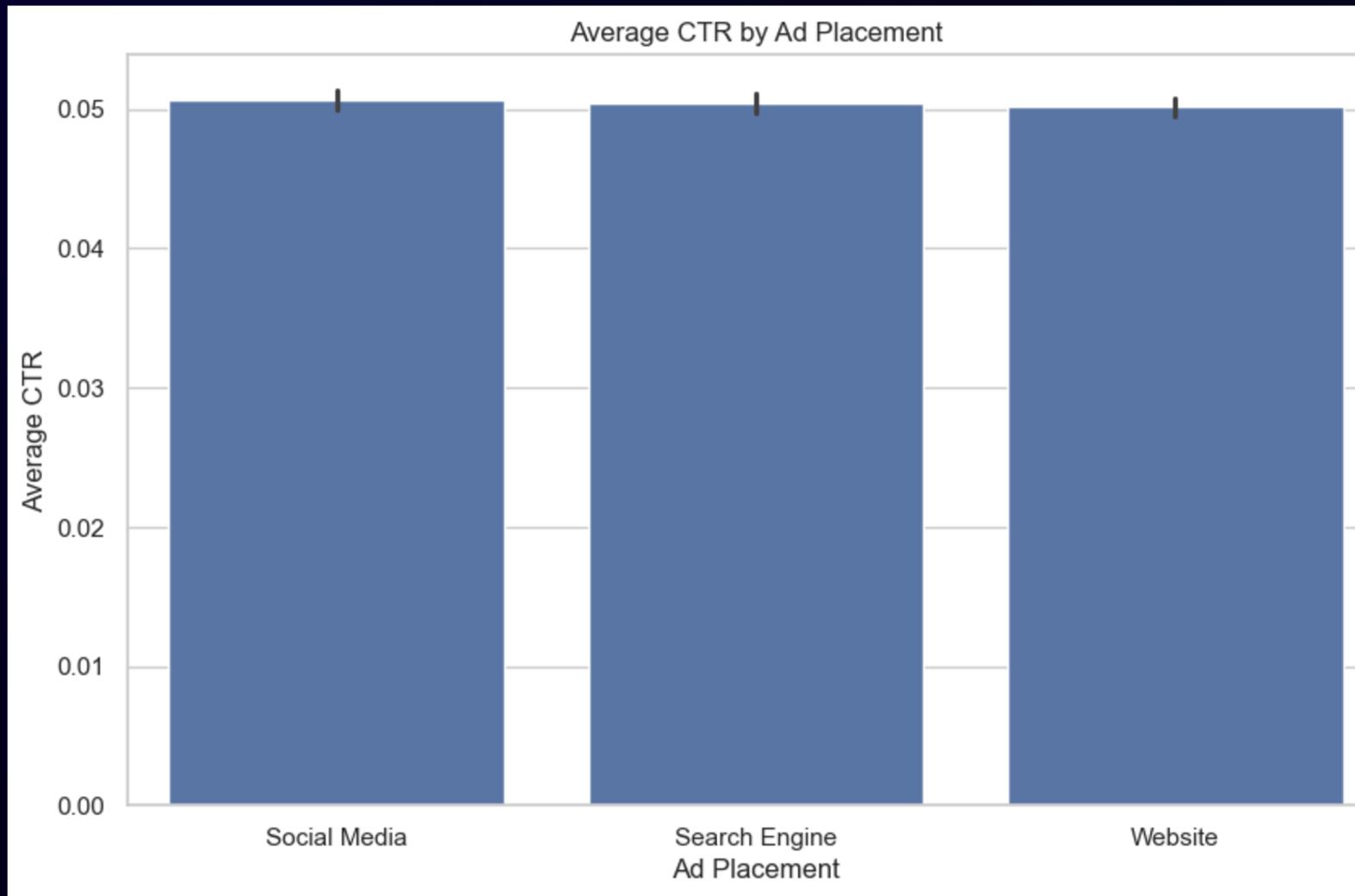
Conversion Performance Varies Much More Than Engagement



- Conversion rates show high variability
- Indicates differences in traffic quality and intent
- Engagement ≠ business outcome

Placement Performance

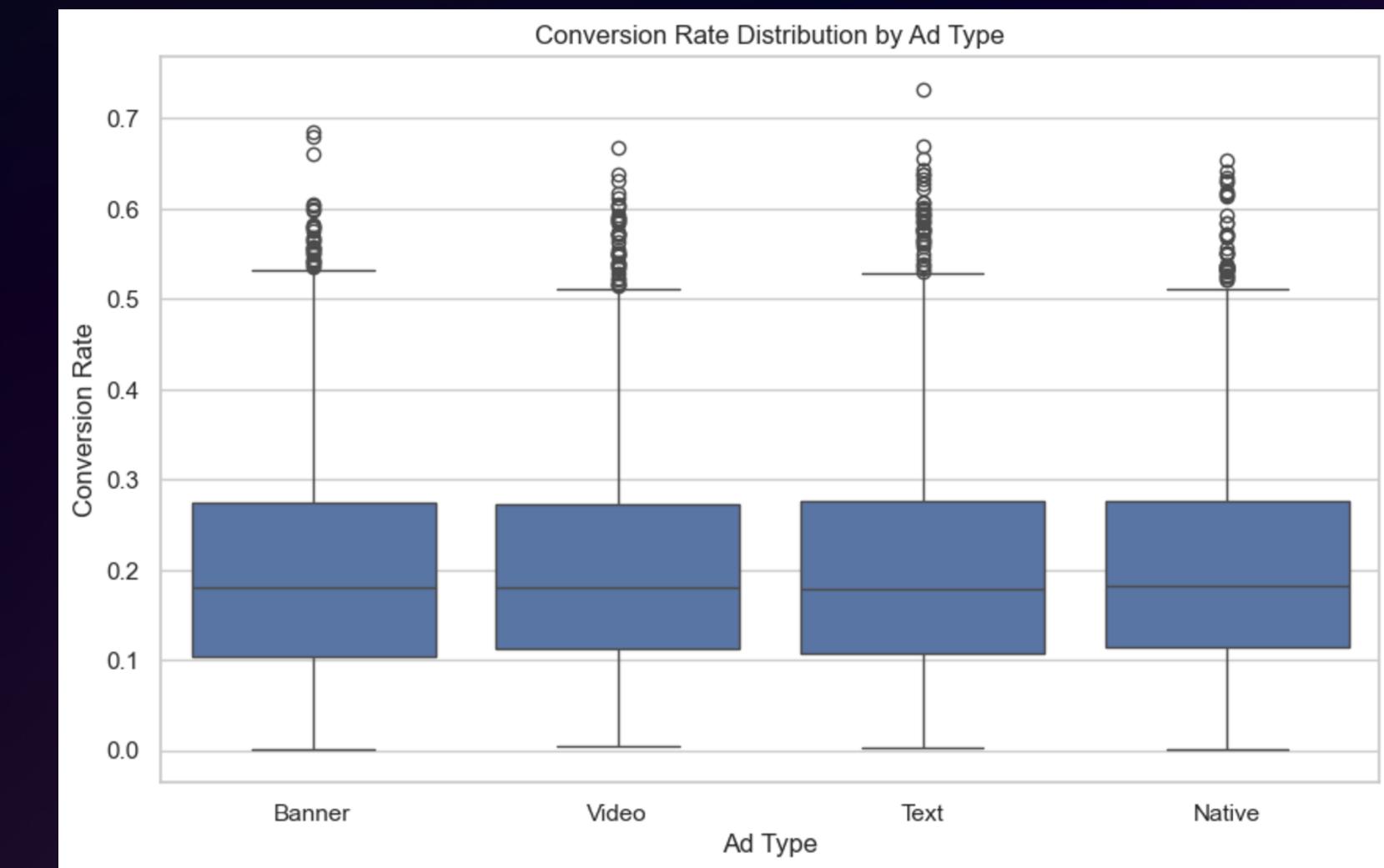
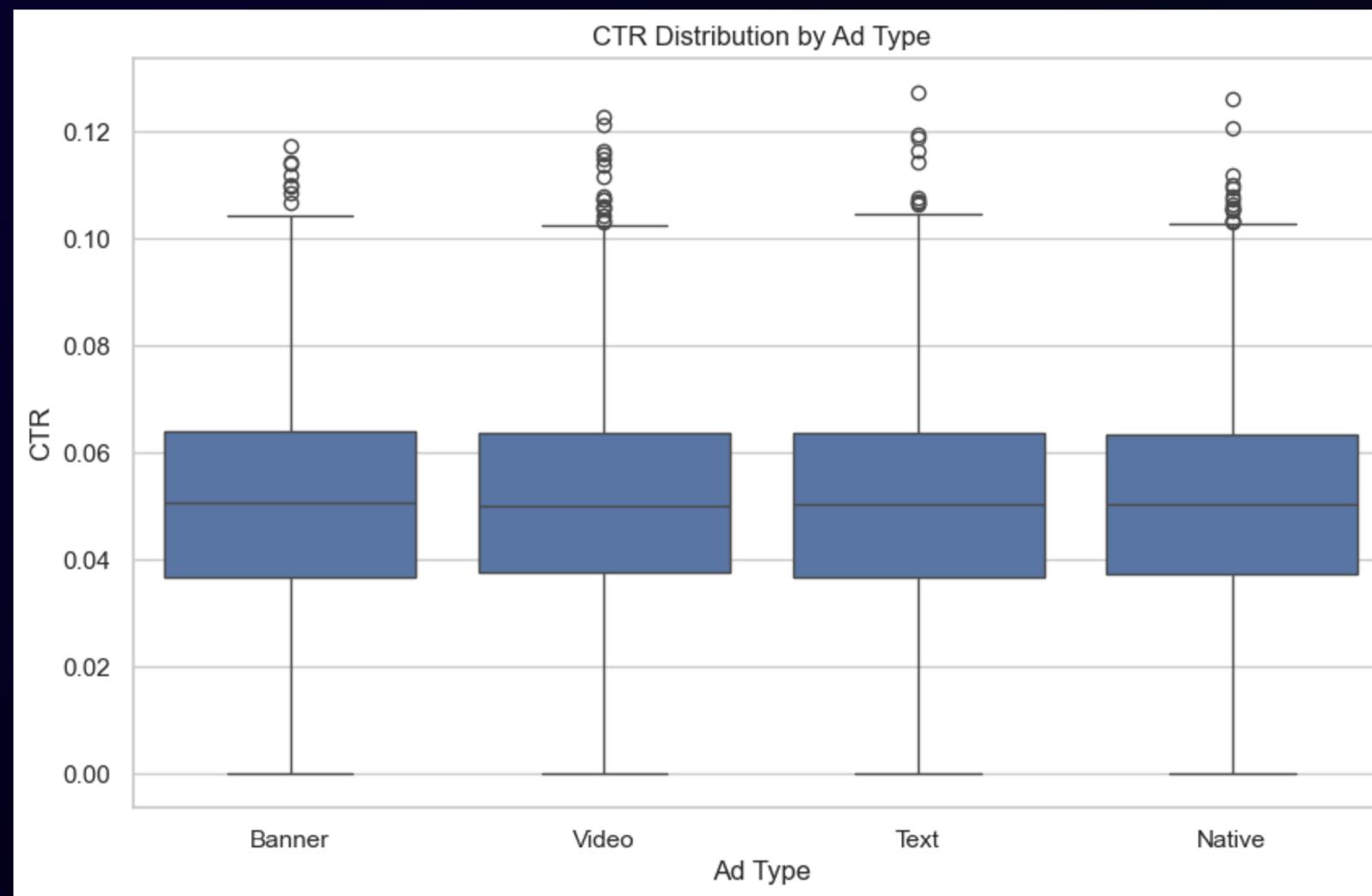
Similar Engagement Across Channels, Different Conversion Outcomes



- CTR is similar across all placements
- Social Media & Website convert slightly better
- Placement decisions should consider conversion, not CTR alone

Ad Type Effectiveness

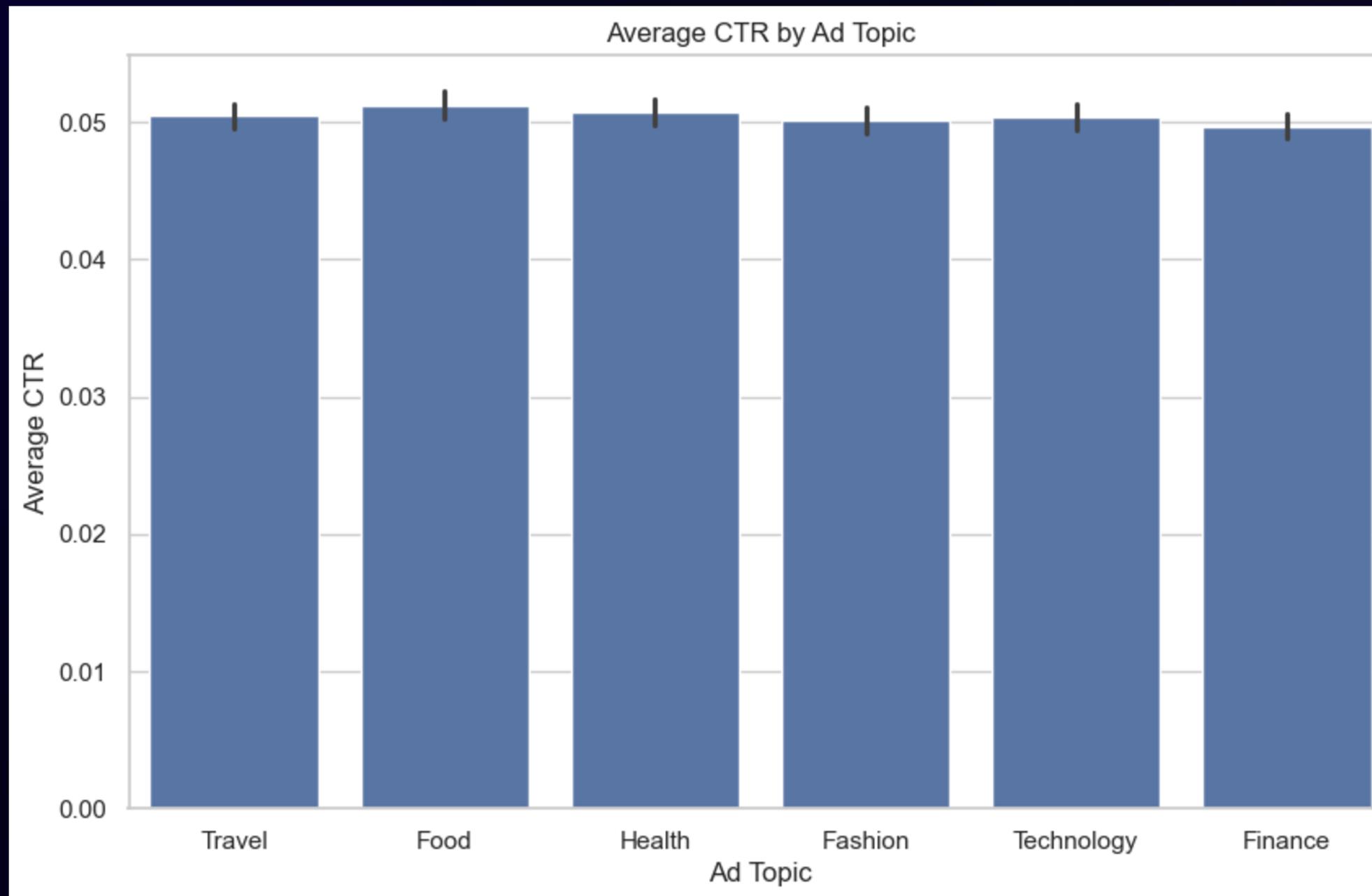
No Ad Format Guarantees Superior Performance



- All ad types show overlapping performance
- Video & Native show occasional high outliers
- Creative format alone is not a silver bullet

Ad Topic Performance

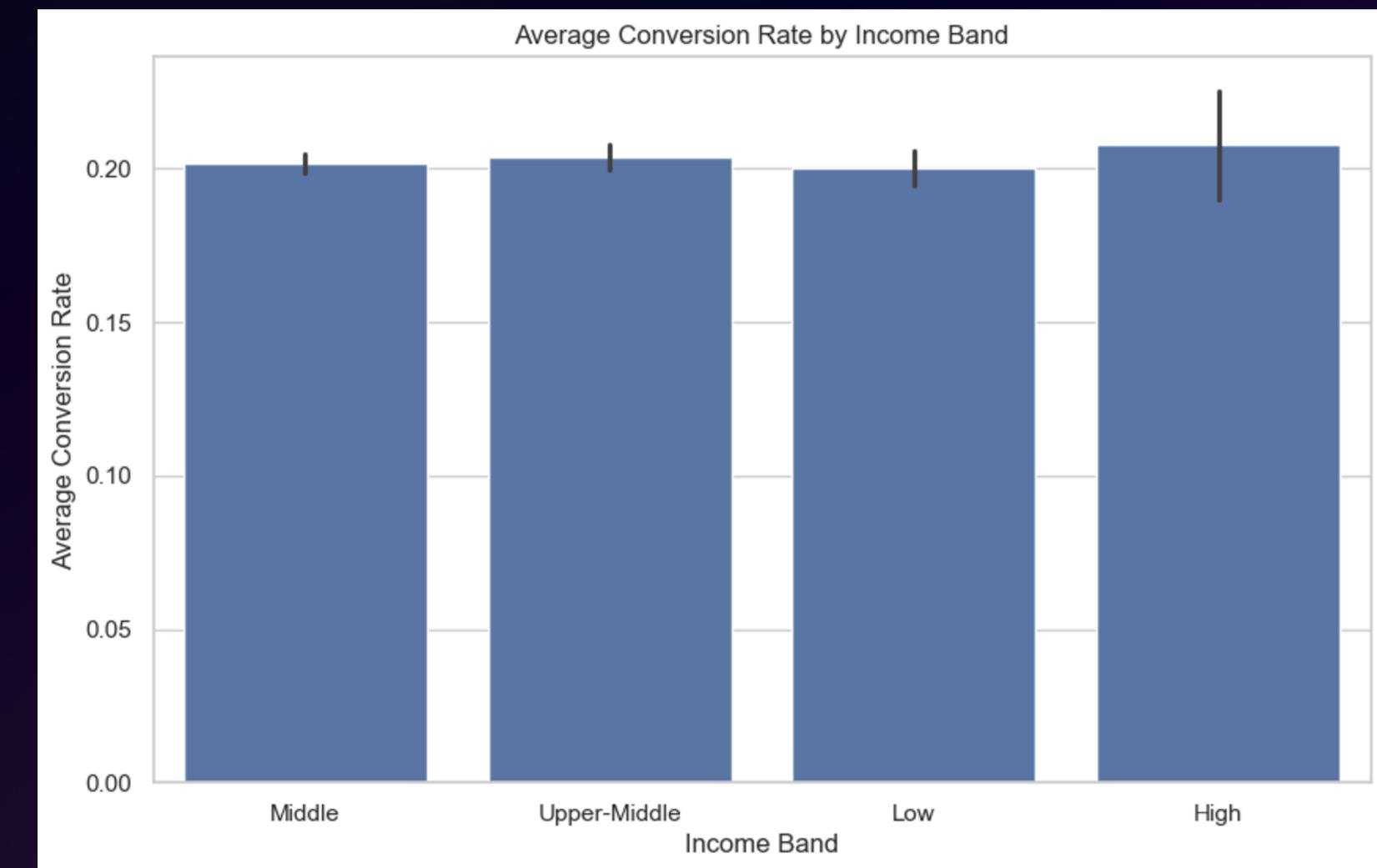
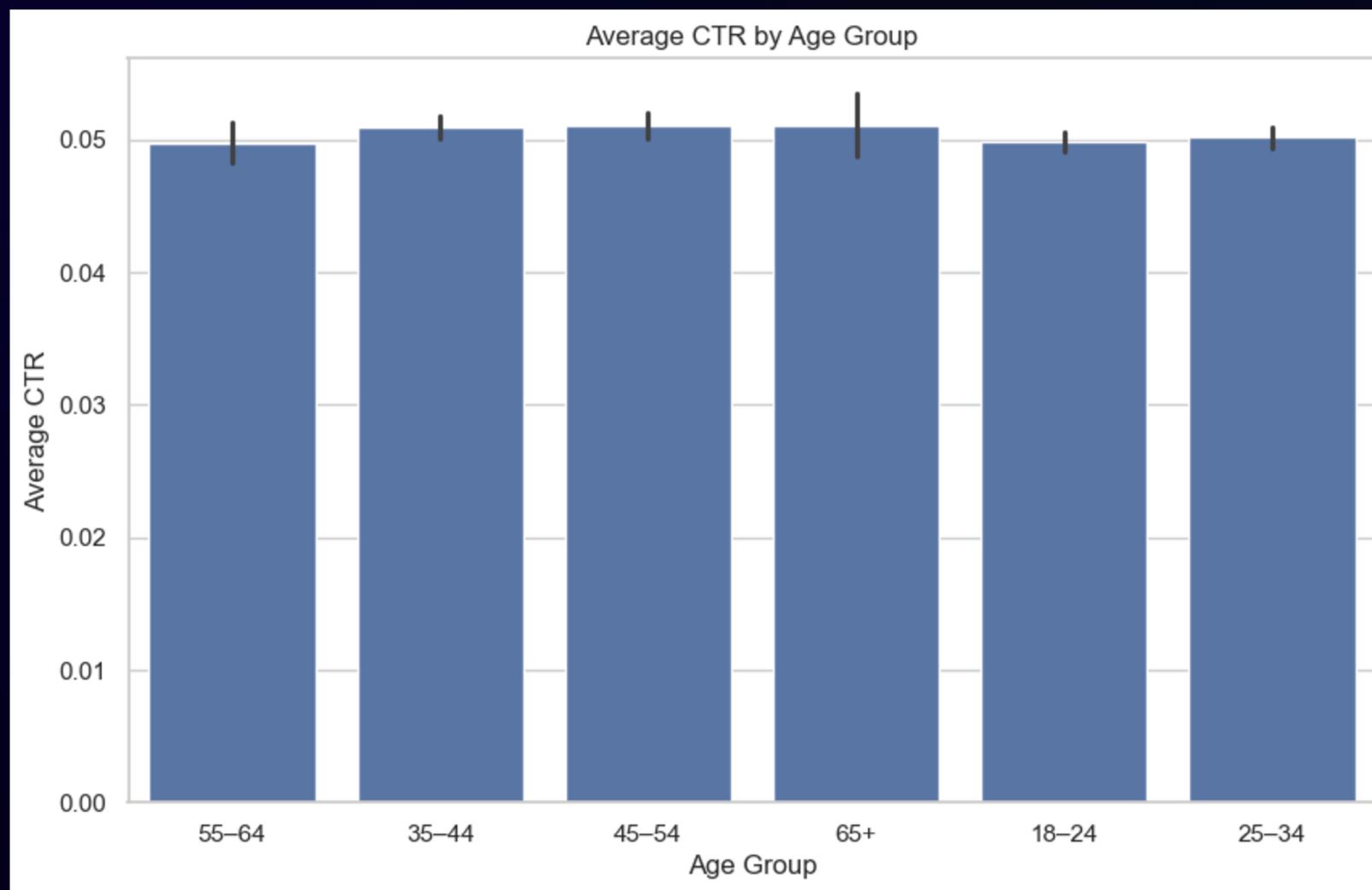
Content Topic Drives Marginal Differences in Engagement



- Food, Health, Travel slightly outperform others
- Differences are incremental, not dramatic
- Targeting & execution matter more than topic alone

Audience Insights

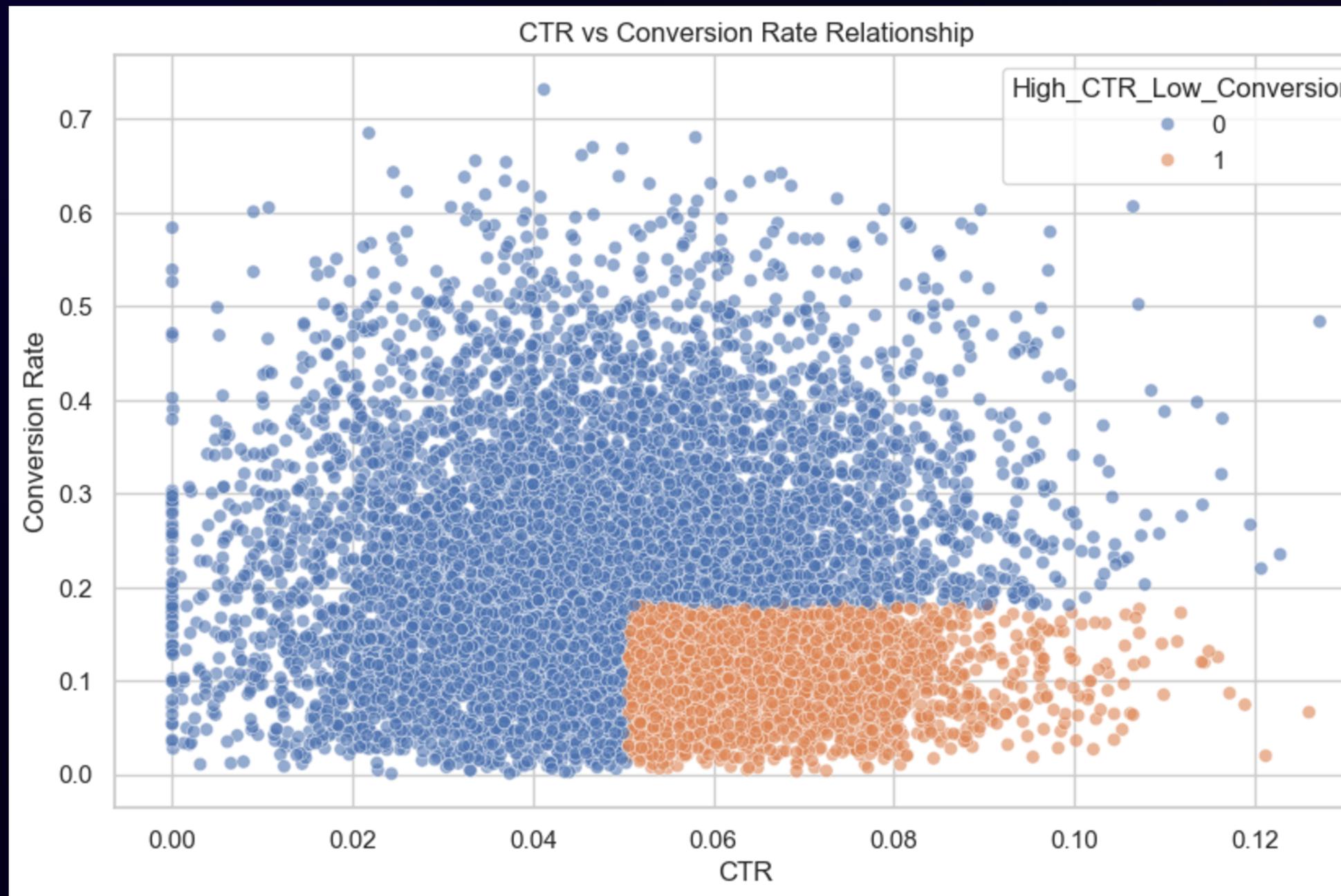
Audience Quality Has a Stronger Impact Than Creative Format



- Older users show slightly higher engagement
- High-income users convert significantly better
- High-income segments represent high-value targets

CTR vs Conversion Relationship

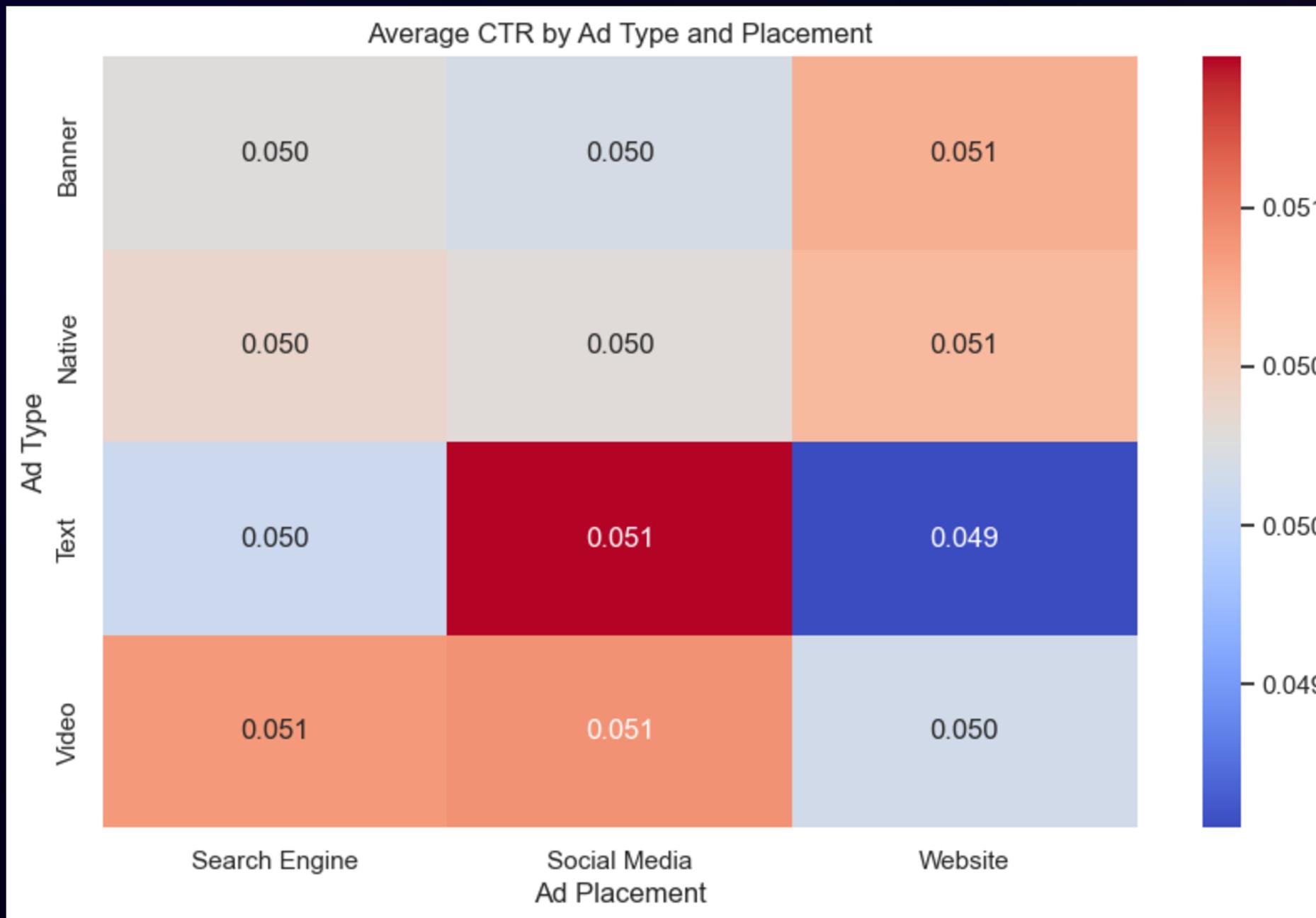
High Engagement Does Not Always Translate Into Conversions



- Weak correlation between CTR and conversion
- Clear cluster of high-CTR / low-conversion users
- Indicates funnel inefficiencies

Heatmap: Ad Type × Placement

No Single Ad Type–Placement Combination Dominates Engagement



- CTR values are tightly clustered
- Video + Social Media performs consistently well
- CTR differences alone don't justify aggressive budget shifts

Key Insights

- CTR is stable; conversion varies significantly
- Audience characteristics drive conversion more than format
- High-CTR / low-conversion segments indicate optimization gaps
- Funnel alignment is more important than creative changes alone



01.

Optimize campaigns
based on conversion,
not CTR

03.

Use Video ads for
awareness, Website
placements for
conversion

02.

Prioritize high-
income and older
user segments

04.

Improve landing
pages for high-
engagement / low-
conversion traffic

Recommendations





The End