

Online Advertising Performance Analysis

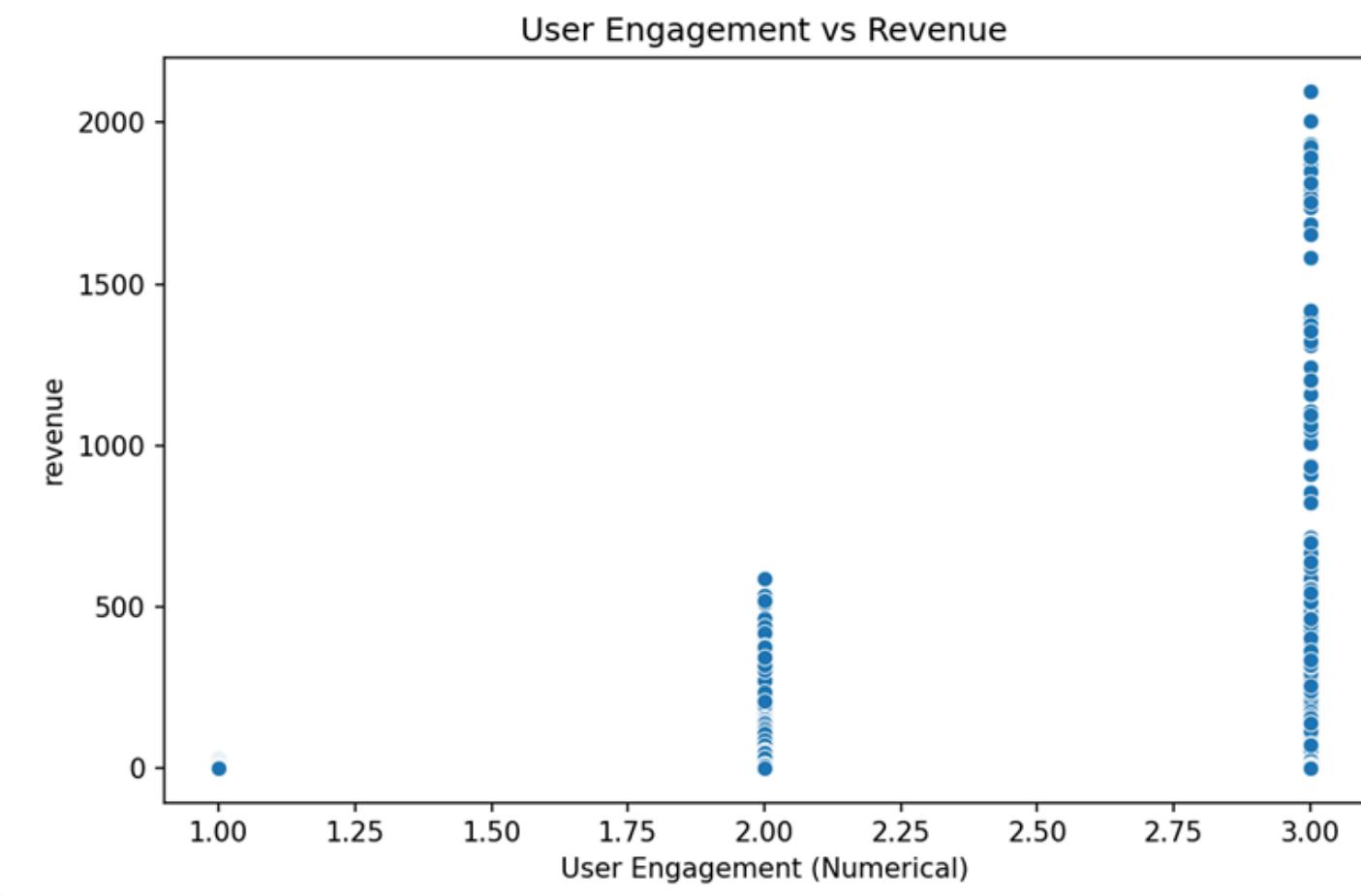
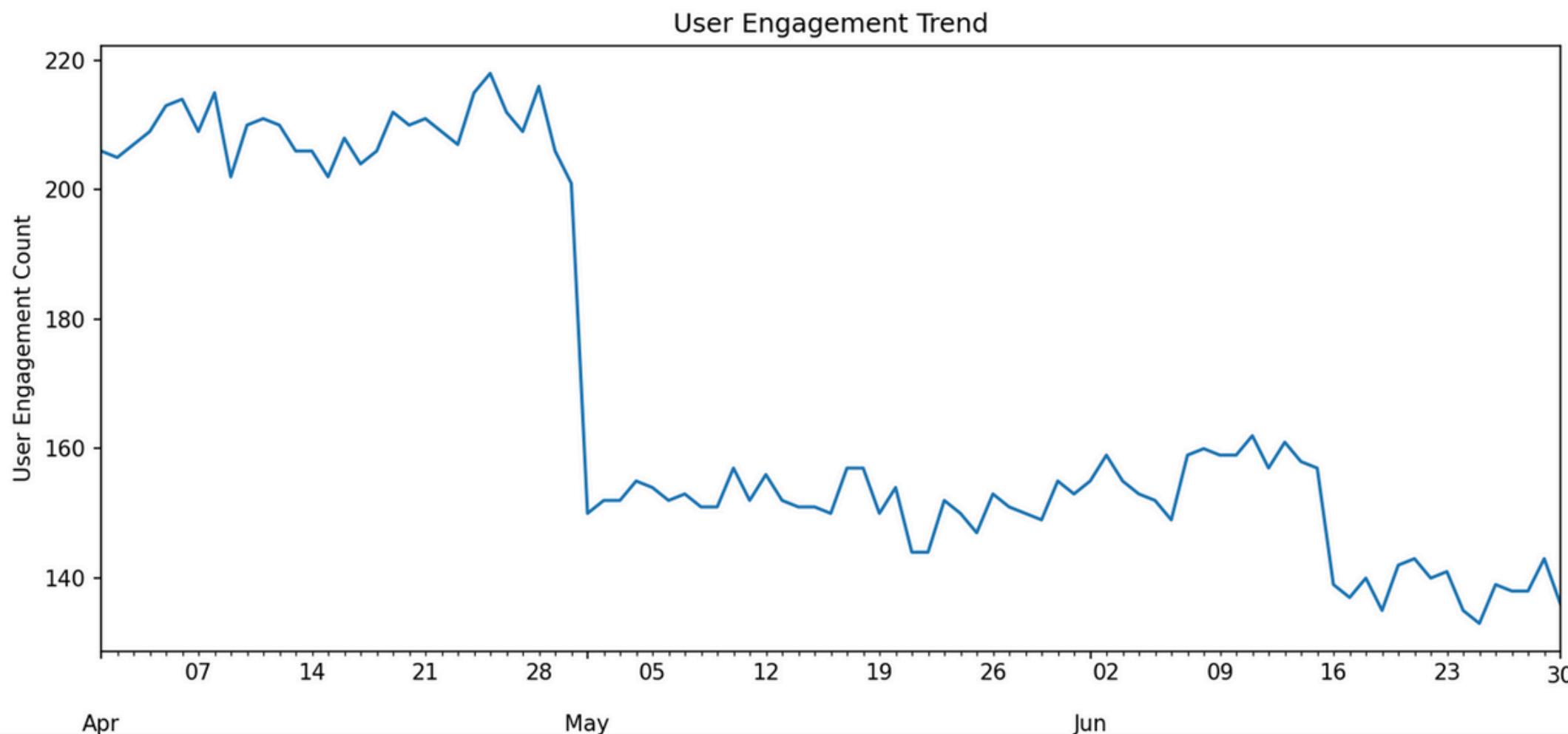
Insights from Data
Analysis on Company
X's Advertising
Campaign

Introduction & Dataset Overview

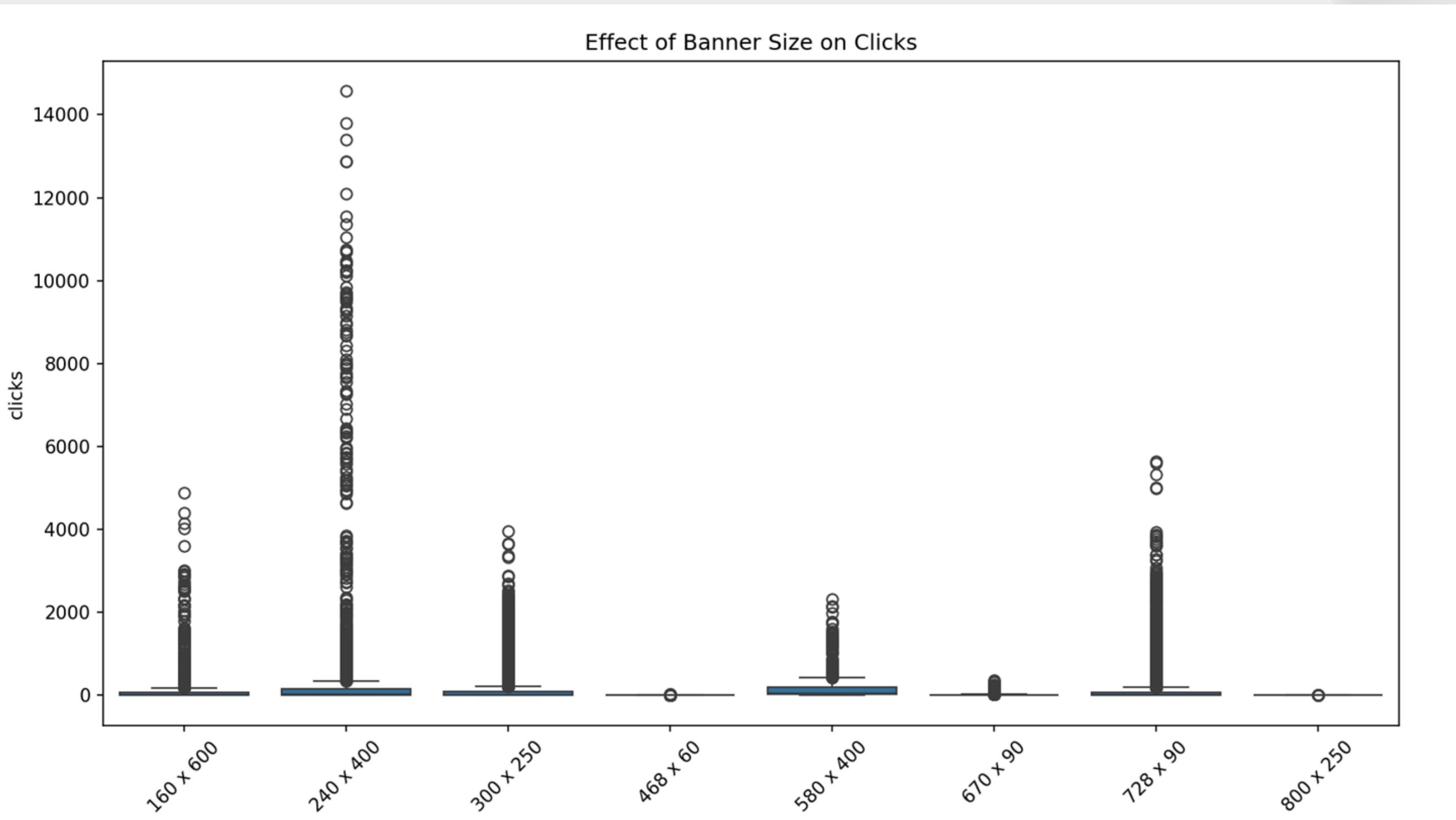
- Overview of the dataset (April 1, 2020 - June 30, 2020).
- Key metrics: user engagement, banner size, placement, cost, clicks, revenue, post-click conversions.
- Objective: Identify trends, correlations, and campaign effectiveness.

User Engagement Trends

- Graph: User engagement over time.
- Observations: Engagement fluctuates with notable peaks.
- Possible causes: Campaign strategies, external events.



Effect of Banner Size on Clicks



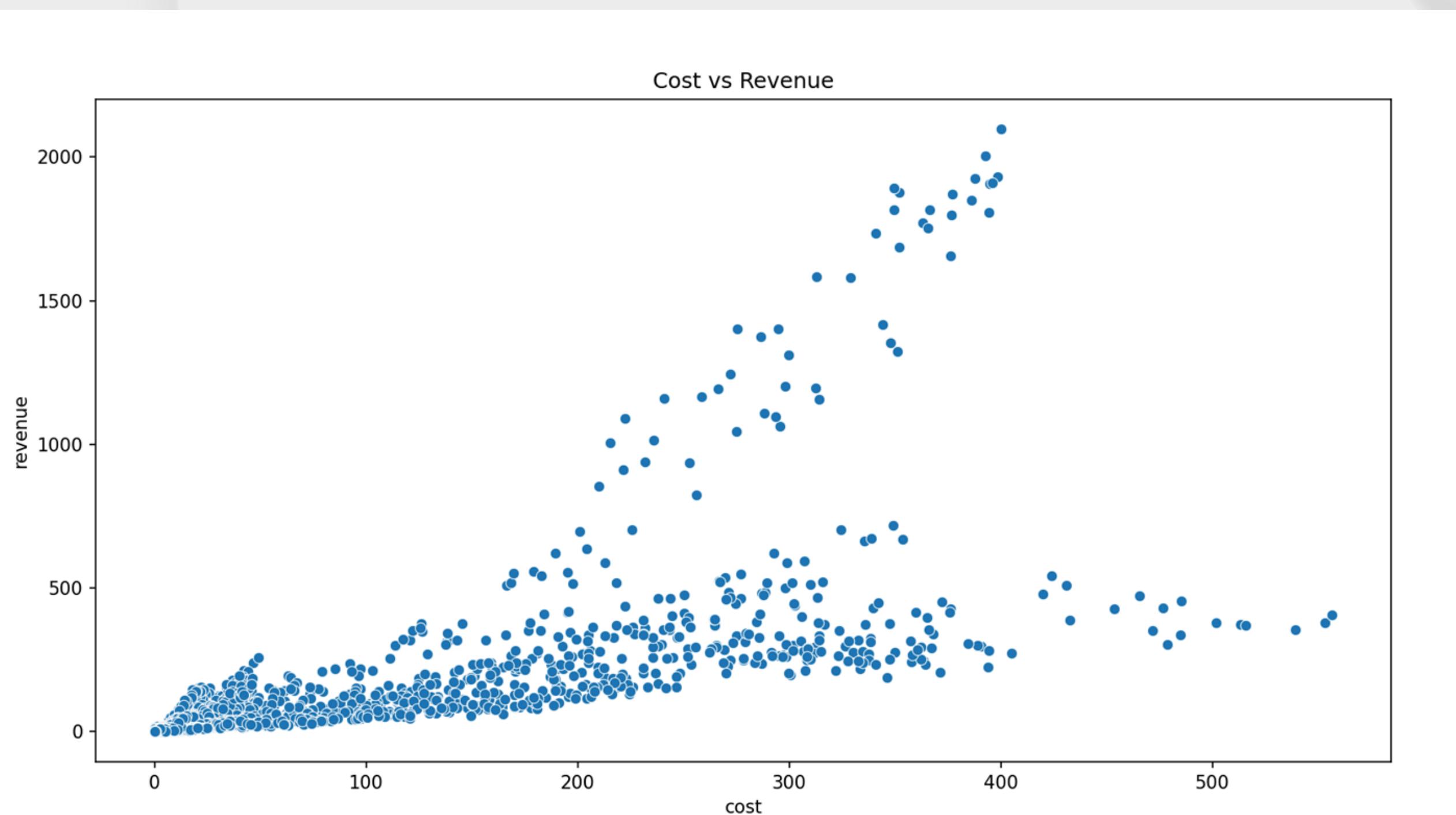
- Graph: Showing clicks vs. banner size.
- Insight: Larger banners tend to get more clicks, but some smaller banners perform well too.

Best Performing Placements

placement	displays	clicks
mno	143161775	993039
ghi	59740415	1247049
def	28177492	176097
jkl	7692732	75063
abc	242142	1584

- Table: Top placements ranked by displays and clicks.
- Key finding: Certain placements consistently drive higher ad exposure.

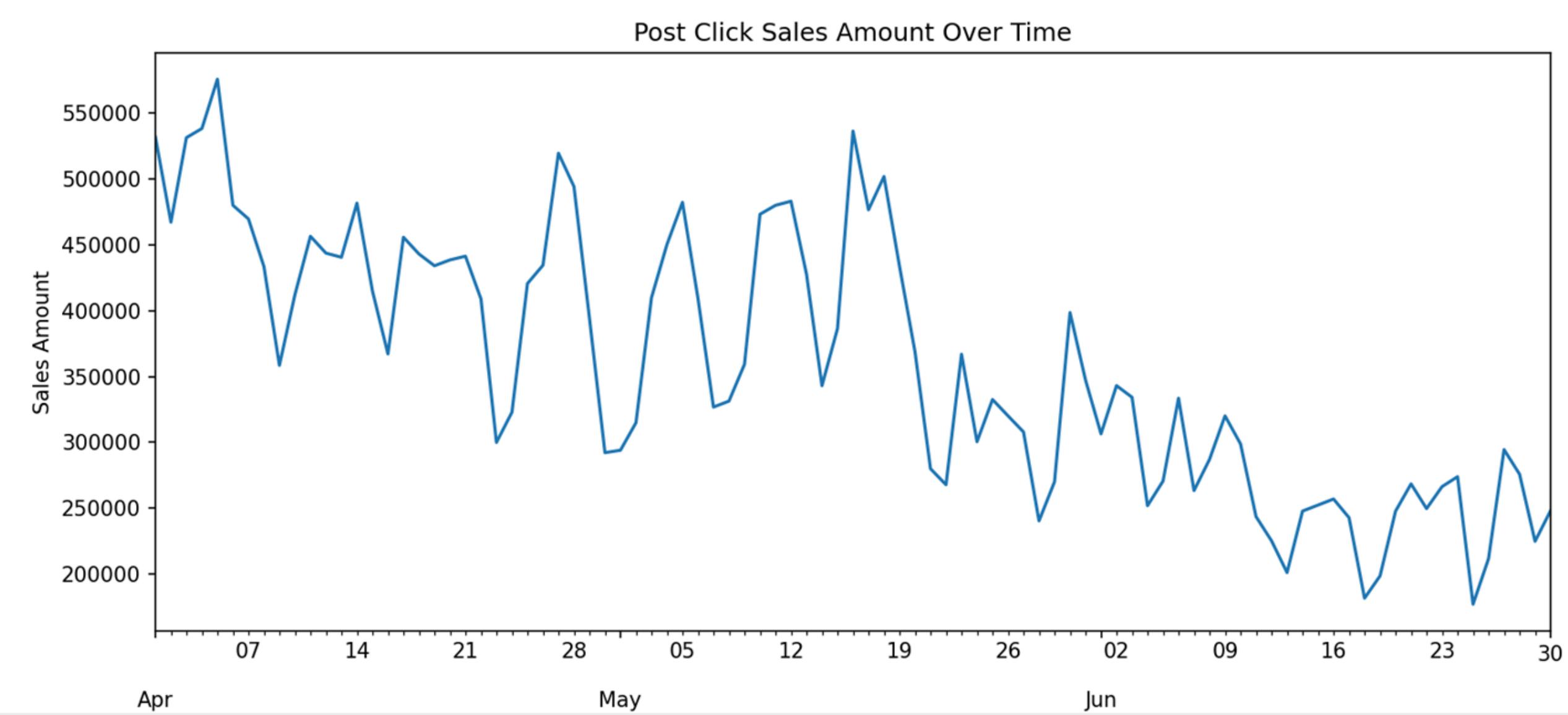
Cost vs. Revenue Correlation



- Graph: Scatter plot of cost vs. revenue.
- Observation: Some campaigns have high costs but low revenue, highlighting inefficiencies.

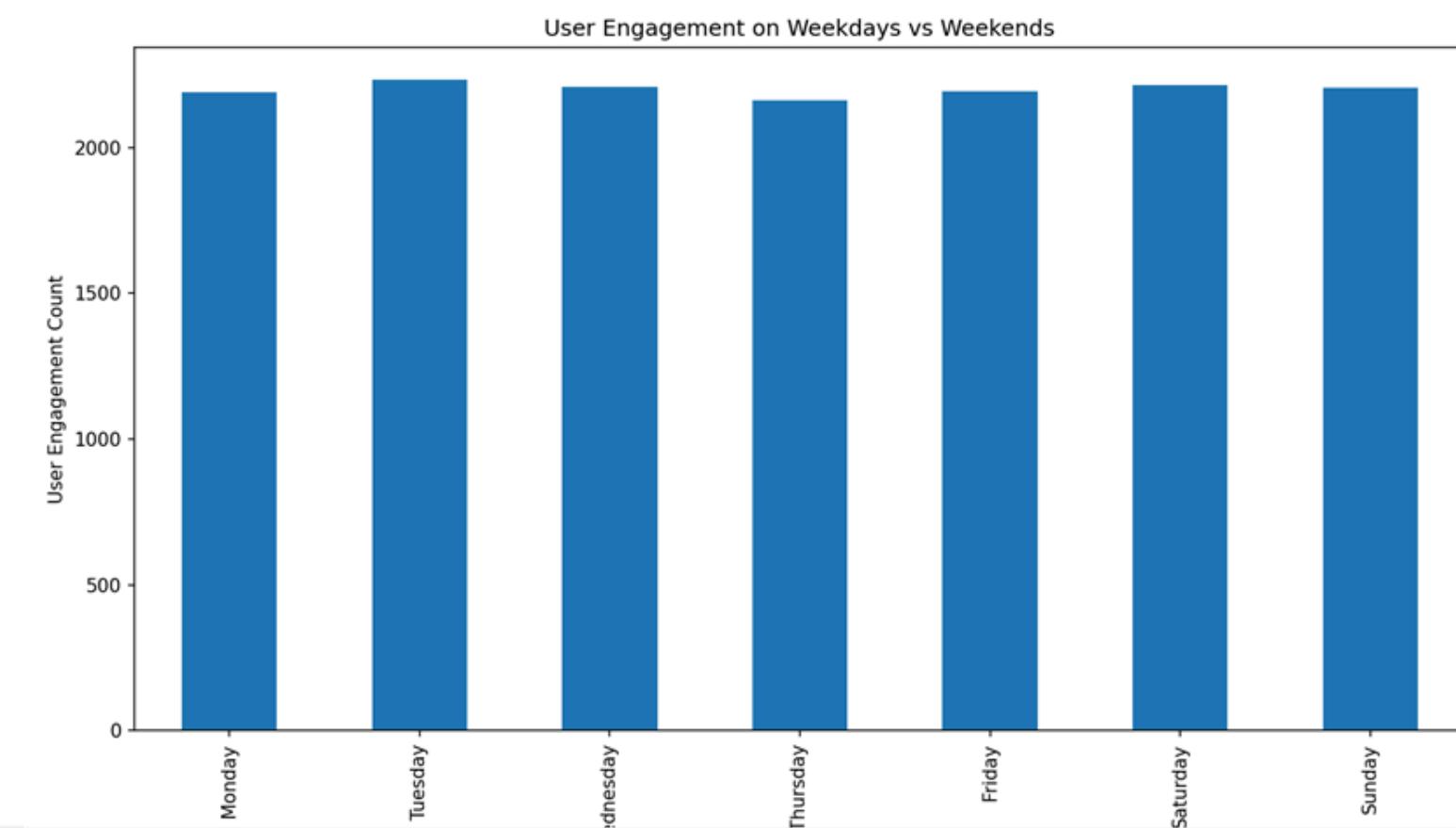
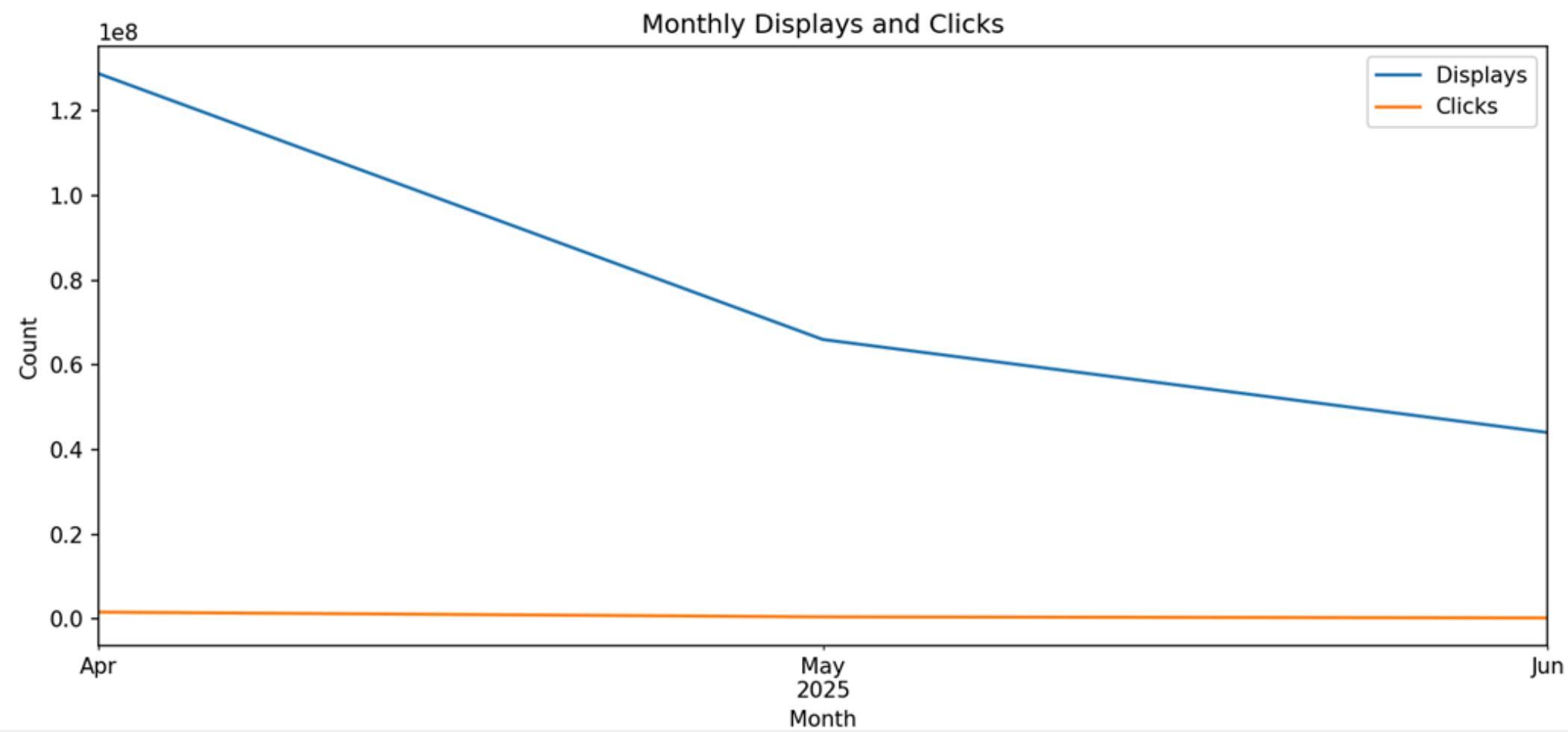
Revenue per Click & Post-Click Conversion Rates

- Formula: Revenue per Click = Total Revenue / Total Clicks.
- Table: Top campaigns by conversion rate.
- Insight: Some campaigns drive significantly higher conversions.

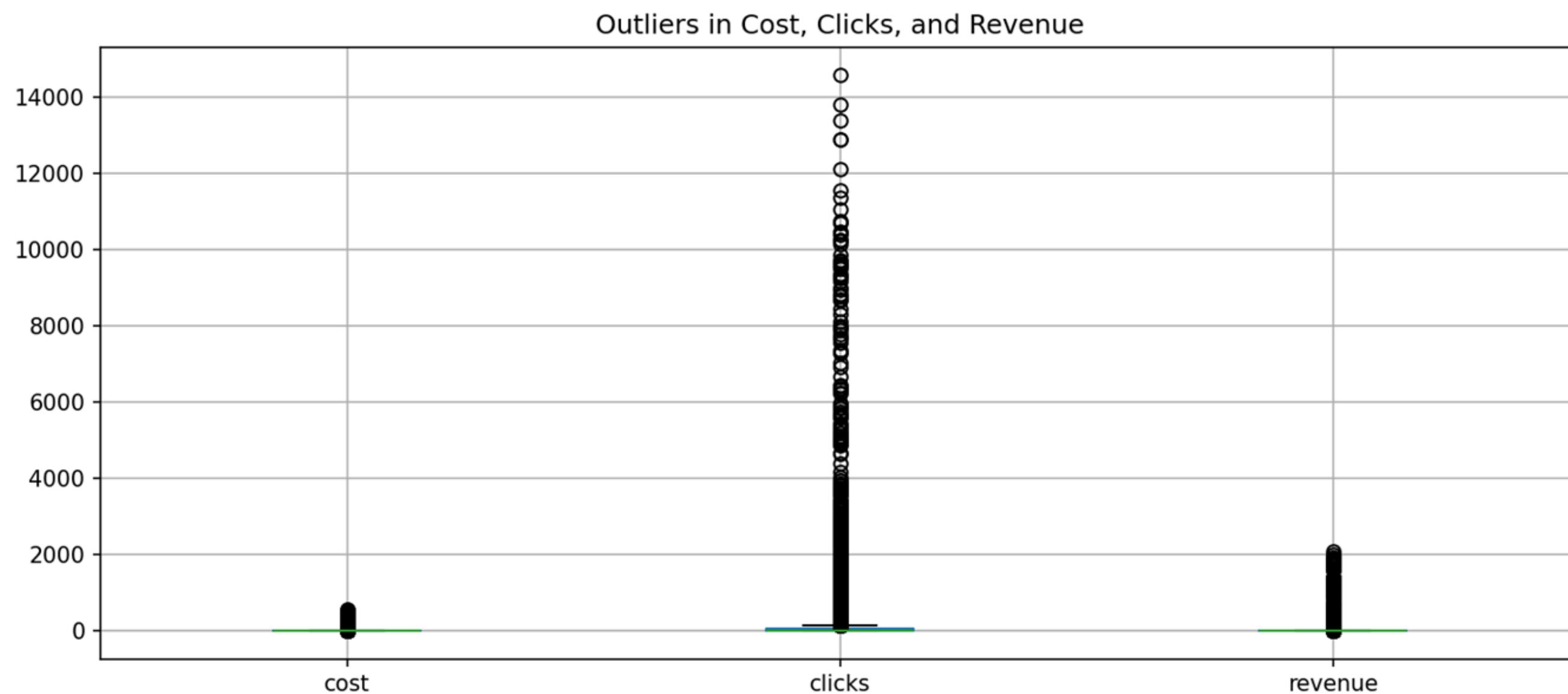


Seasonal Trends & Weekly Engagement

- Graph: Clicks and conversions by month and weekday.
- Key finding: Certain days and months perform better for engagement and conversions.

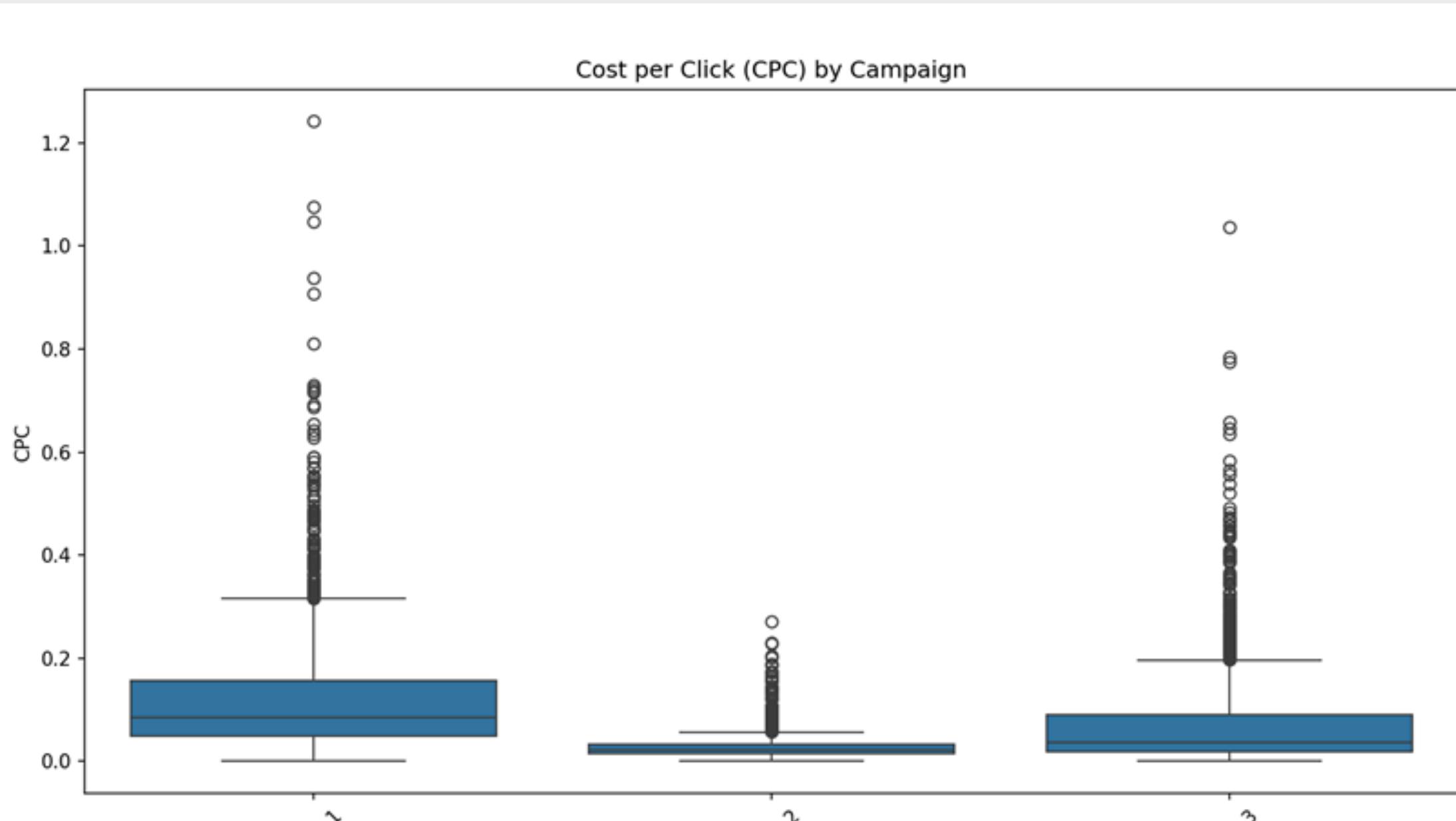


Outliers in Cost, Clicks, and Revenue



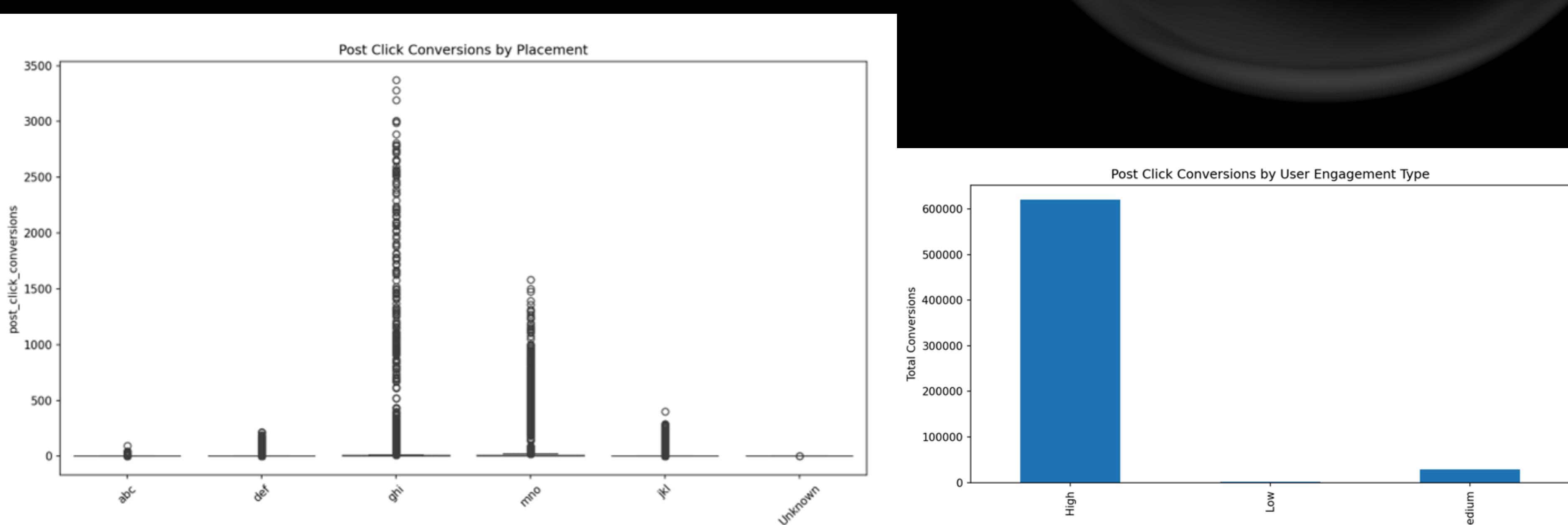
- Graph: Boxplot highlighting anomalies.
- Finding: Some campaigns are significantly more expensive or less effective.

Campaign ROI & Cost-Effectiveness



- Formula: $ROI = \text{Revenue} / \text{Cost}$.
- Table: Top campaigns by ROI.
- Recommendation: Focus budget on high-ROI campaigns.

Post Click Data



Conclusion & Recommendations

- Summary: Key insights on user engagement, banner size, placements, and cost-effectiveness.
- Recommendations: Optimize ad strategies, refine placement choices, and reduce spending on inefficient campaigns.
- Next Steps: Further analysis and A/B testing.

Thank You

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