

Digital Marketing Campaign Analysis

An in-depth analysis of marketing
campaign performance across social
media platforms.

AGENDA

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02 Facebook Analysis

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03 TikTok Analysis

06 Action Plan

Project Overview

Objective: Analyze marketing campaign performance across **Facebook, Google, and TikTok** to determine the most successful platform based on key metrics.

Methodology:

- Conducted **individual analyses** for each platform.
- Performed **overall comparisons** to identify the best-performing platform.
- Applied **Python** for statistical analysis, including:
 - Confidence intervals
 - Hypothesis testing
 - Regression analysis
- Utilized **Tableau** for interactive dashboards.

Key Metrics Analyzed:

- **Impressions & Reach:** Segmented by **gender, age, and time of day**
- **Clicks:** Breakdown by **demographics and platform**
- **Click-Through Rate (CTR):** Engagement effectiveness
- **Conversion Rate:** Campaign success in driving actions

Facebook

Gender and Age Insights

Male vs. Female Viewership

- Males viewed the ad significantly more than females in reach & impressions.
- Statistical testing confirmed this difference.
- Possible reach-to-impression ratio variance between genders.
- p-value = 0.08, suggesting further investigation is needed before drawing firm conclusions.

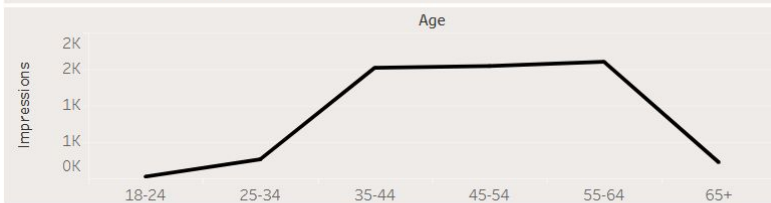
Age Group Analysis

Most Engaged Demographic

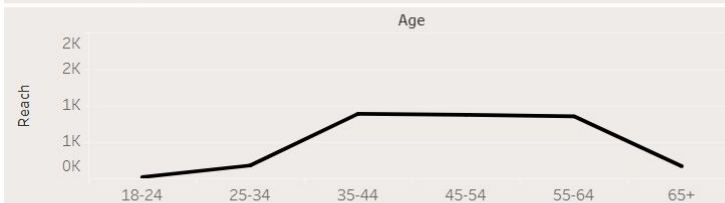
- 55-64 age group had the highest viewership.
- 99% increase compared to the lowest-viewing age group.
- Indicates a strong preference for this demographic.

Demographics Dashboard

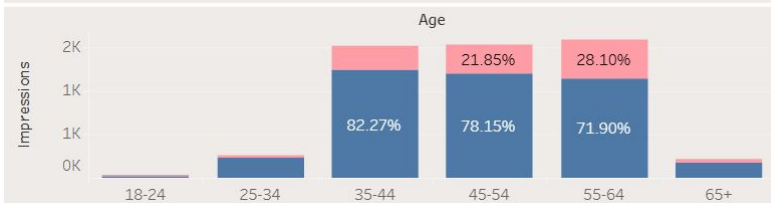
Impressions by Age



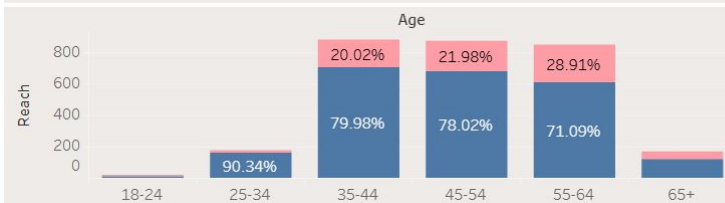
Reach by Age



Impressions by Gender



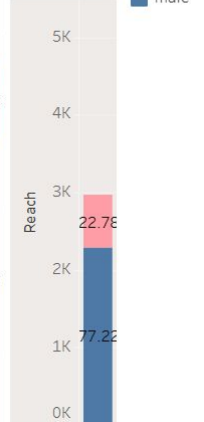
Reach by Gender



Total Impressions



Total Reach



Gender



Time Trends and Metrics

Time-Based Trends

Peak Viewing Hours

- Most frequent ad views during:
 - Early morning
 - Lunch breaks
 - Late afternoon
- Viewing times align with older demographic routines.
- Minor impression differences across top viewing hours → More data needed to determine the most effective ad placement time.

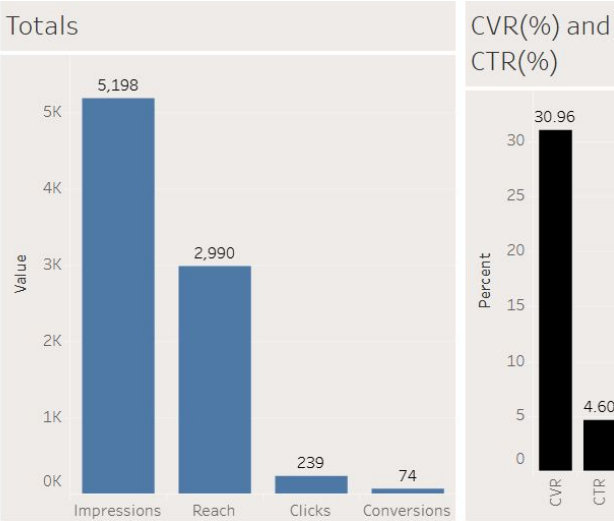
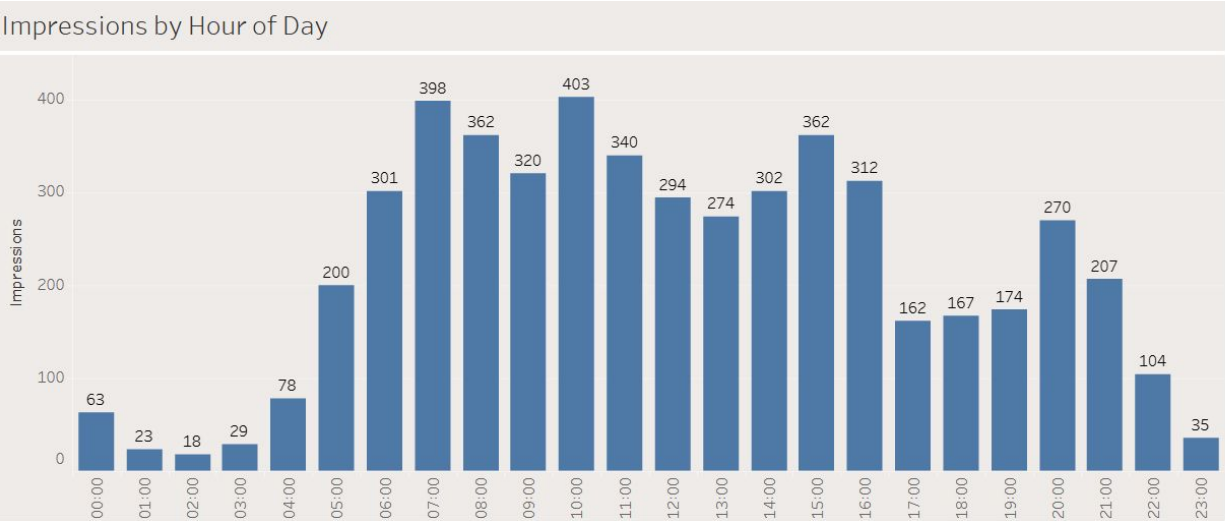
Performance Metrics

Campaign Success

- High conversion & click-through rates, exceeding industry benchmarks.
- 30% conversion rate is particularly notable.
- Impression-to-conversion rate = 1.4%, indicating room for optimization.

Demographics Dashboard

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TikTok

Gender and Age Insights

Gender Analysis:

- Women had significantly more impressions than men.
- CVR & CTR: No significant difference by gender.

Age Analysis:

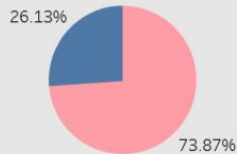
- Age had no effect on CVR or CTR.
- Tukey Post-Hoc:
 - Most conversions: Age group 55+
 - Least conversions: Age group 18-25

Age and Gender Interaction:

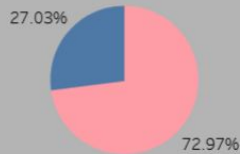
- Females (18-25) had the lowest conversions.
- Males (55+) had the highest conversions.
- Indicates older people, especially men, are more likely to convert, while younger people, especially women, are less likely.

Demographics Dashboards

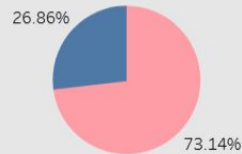
Impressions by Gender



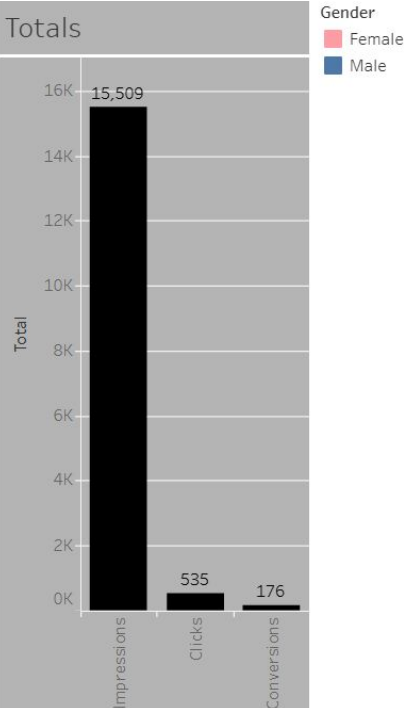
Clicks by Gender



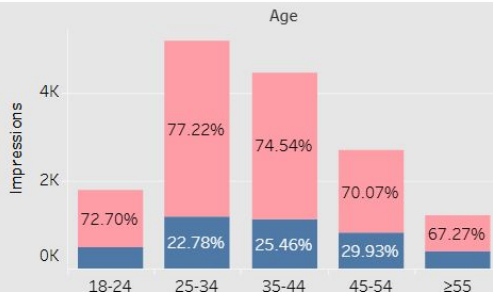
Conversions by Gender



Totals



Impressions by Age



Clicks by Age

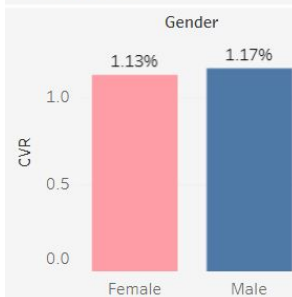


Conversions by Age

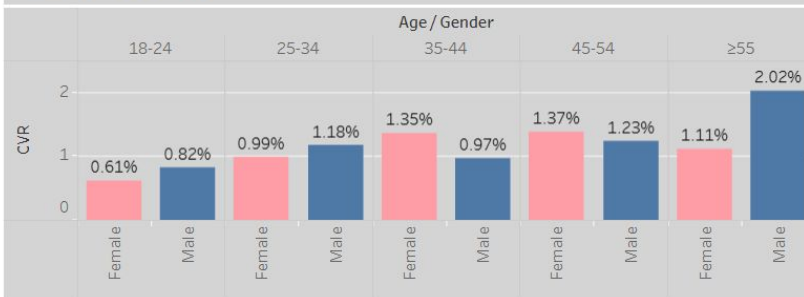


Demographics Dashboards

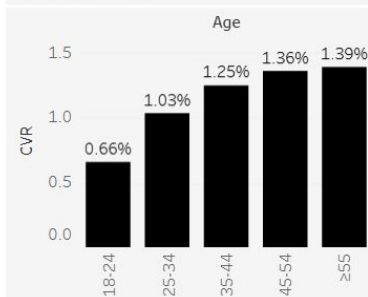
CVR by Gender



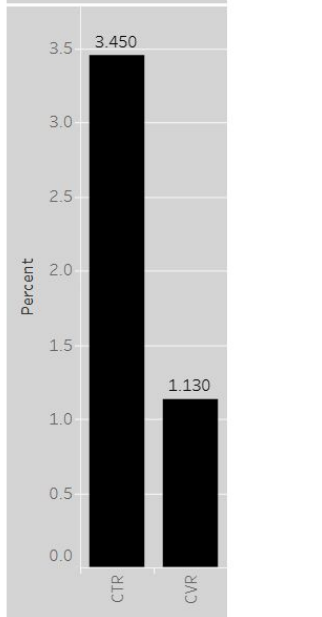
CVR by Age and Gender



CVR by Age

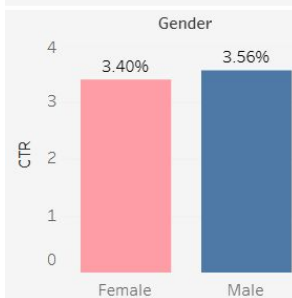


Totals (CVR and CTR)

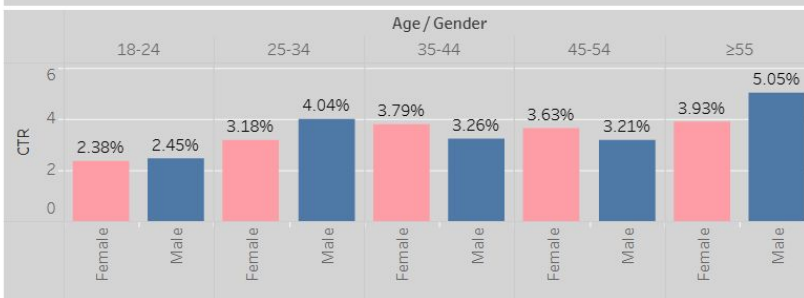


Gender
Female
Male

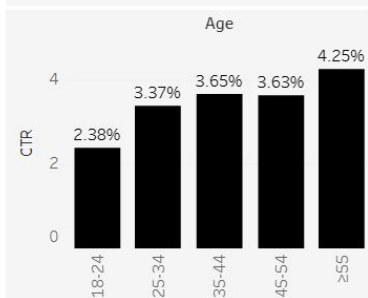
CTR by Gender



CTR by Age and Gender



CTR by Age



Time Trends

Impressions by Day:

- ANOVA Test: Sunday had the most impressions, followed by Saturday.
- Significant difference compared to other days.

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Time Trends Dashboard

TikTok Ads KPI Dashboards

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Impressions

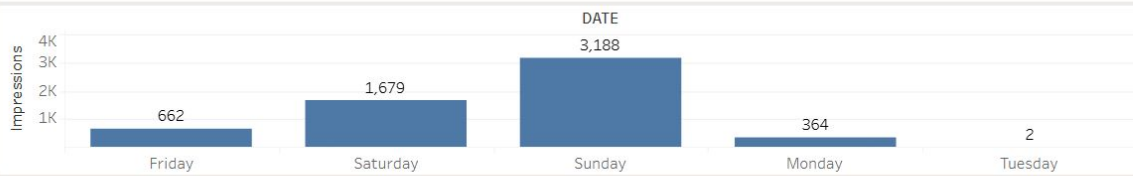
Clicks

Conversions

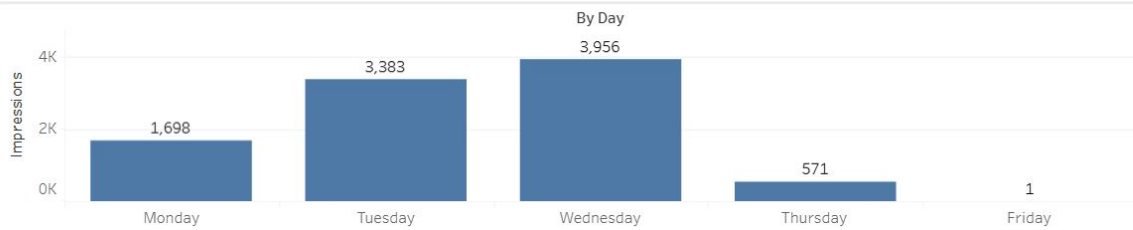
CVR (conversion rate)
and CTR(click through rate)

>

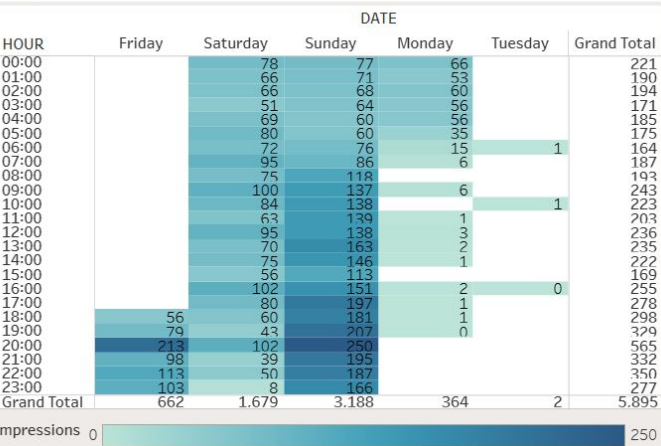
Impressions by day week 1



Impressions by day week 2



Impressions by hour week 1



Google

Gender and Age Insights

Gender Analysis:

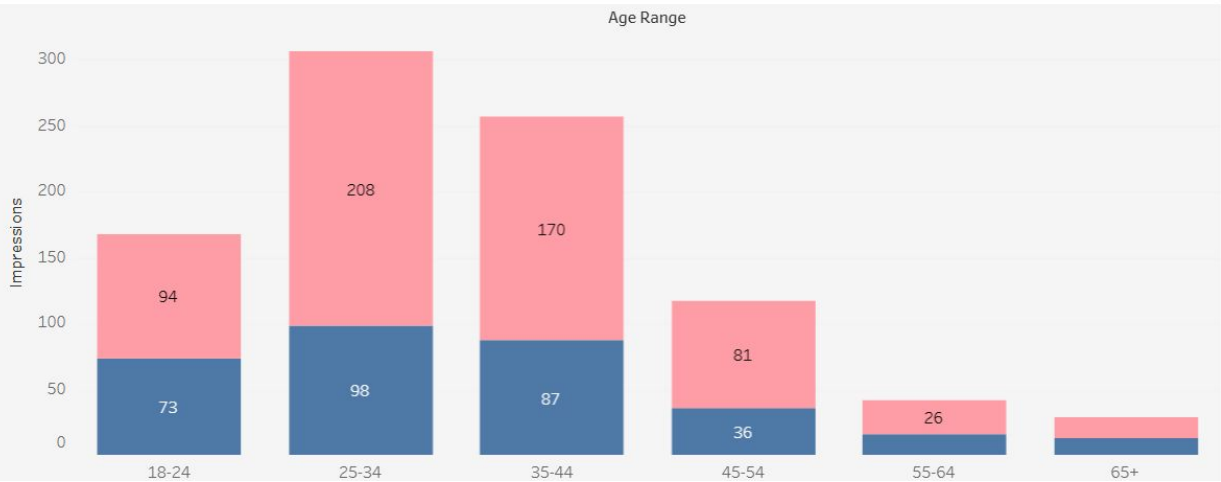
- Women had significantly more impressions than men.

Age Analysis:

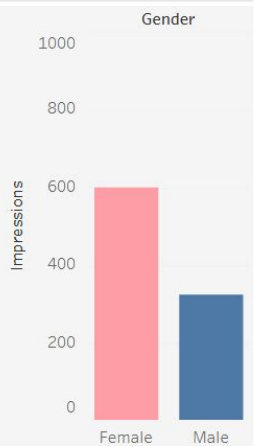
- Moderate difference in impressions by age.
- Most impressions: 25-35 age group.
- Least impressions: 65+ age group.

Demographics Dashboards

Impressions by Age and Gender



Impressions by Gender



Total Impressions



Gender
Female
Male

Time Trends and Keywords

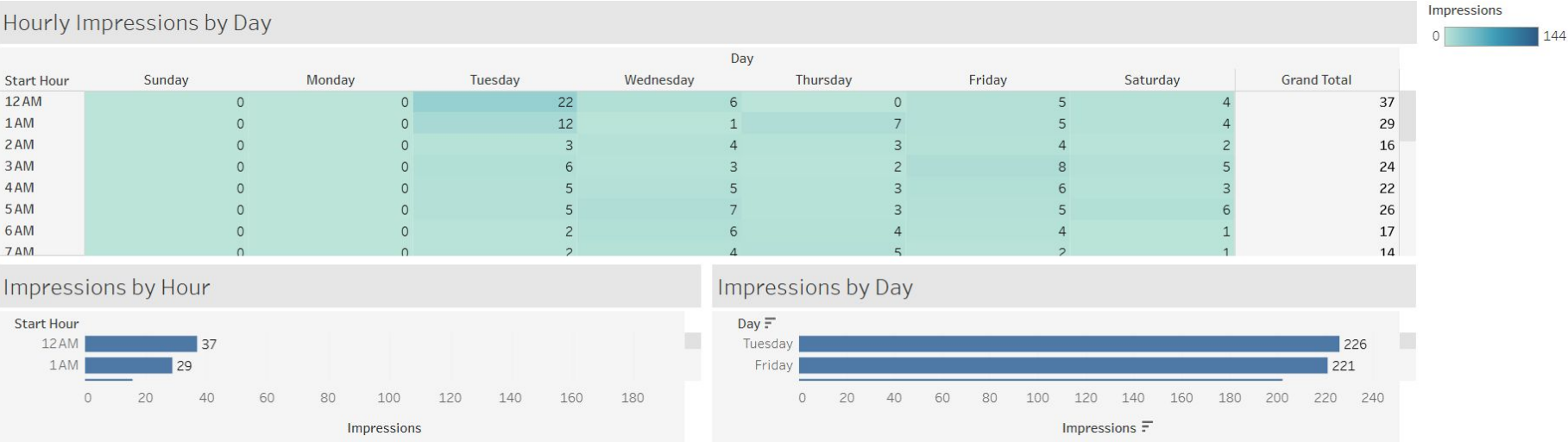
Time-Based Impressions:

- No significant difference by hour or weekday.
- Peak days: Tuesday and Friday.
- Peak times: 7PM, 8PM, 1PM, 2PM, 11AM (lunch & evening).

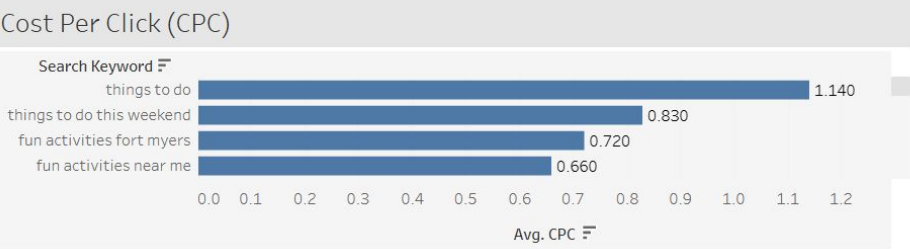
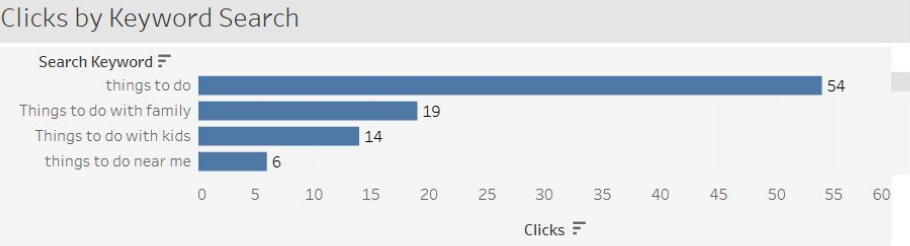
Keyword Analysis:

- No significant difference in clicks by keyword.
- Top keywords suggest the following:
 - Target demographic: Families (kids) & Couples (partners).

Time Trends Dashboard



Keyword Search Dashboard



Total Clicks: 105

Click Through Rate (CTR): 8.950%

Clicks by Keyword Match Type

Search Keyword	Match type		Grand Total
	Broad match	Phrase match	
things to do	17	37	54
Things to do with family		19	19
Things to do with kids		14	14
things to do near me		6	6
date night ideas		3	3
things to do this weekend		2	2
fun activities near me		2	2
fun activities fort myers		2	2
couples dates ideas		2	2
cute date ideas		1	1

Results

- **Platform Performance Overview:**

- TikTok:
 - Largest reach & clicks.
 - Lowest conversion rate (1.13%) & second lowest CTR (3.45%).
- Facebook:
 - Second highest reach & clicks.
 - Highest conversion rate (30.96%) & best CTR (4.6%).
- Google:
 - Lowest impressions & clicks.
 - Worst CTR (1.14%) & second lowest conversion rate (3.1%).

- **Cost Analysis:**

- TikTok: Lowest CPC (\$0.22), highest total cost (\$120).
- Facebook: Second highest CPC (\$0.42), second highest total cost (\$100.4).
- Google: Highest CPC (\$0.53), lowest total cost (\$56.19).

Action Plan

Key Takeaways:

- TikTok had the most views but underperformed in conversions and CTR.
- Google had the lowest total cost but performed worst in clicks, CTR, and conversions.
- Facebook had the second highest reach, the best CTR, and the highest conversion rate.

Conclusion: While TikTok maximized reach, **Facebook** is the best choice considering all performance metrics.

Recommendations:

- Platform Choice:
 - Use **Facebook** as it had the highest conversion rate and best overall performance.
- Target Demographic:
 - Focus on **men** and **older age groups** since they were most likely to convert.
- Optimal Ad Timing:
 - Schedule ads for **early mornings** or **lunch hours** to align with when older audiences are active on social media.
- Ad Content Strategy:
 - Tailor ads to appeal to **families** and **couples**, as indicated by Google keyword search trends.