

Campaign Performance

Step 1: Calculated Metrics

To analyze the Facebook Ads campaign, we first computed the **necessary performance metrics** for each ad.

Since the dataset did not explicitly define “Results” we treated this column as **leads**.

The metrics calculated include:

1. **CTR (Click Through Rate)** - $\text{Clicks} \div \text{Impressions}$
2. **CPC (Cost per Click)** - $\text{Amount Spent} \div \text{Clicks}$
3. **CPM (Cost per 1,000 Impressions)** - $(\text{Amount Spent} \div \text{Impressions}) \times 1,000$
4. **CPL (Cost per Lead)** - $\text{Amount Spent} \div \text{Results}$

Notes:

- If a value in the denominator was zero (0 Impressions, 0 Clicks, or 0 Results), the calculated metric was set to **0** to avoid errors.
- All amounts were handled in **USD**, converting string values (like “1.25\$”) to numeric values for calculations.

Here we can see a sample of the dataset, including the newly calculated columns: CTR, CPC, CPM, and CPL, these metrics were added for each ad to evaluate performance more accurately.

Impressions	Clicks	Results	Amount Spent	CTR	CPC	CPM	CPL
1245	29	11	\$5.24	2.33%	0.18069	4.208835	0.476364
808	33	6	\$2.69	4.08%	0.081515	3.329208	0.448333
1	0		\$0.00	0.00%	0	0	0
534	8	3	\$2.59	1.50%	0.32375	4.850187	0.863333
277	9		\$1.37	3.25%	0.152222	4.945848	0
316	18	4	\$1.25	5.70%	0.069444	3.955696	0.3125
151	4	2	\$0.76	2.65%	0.19	5.033113	0.38
91	1	2	\$0.51	1.10%	0.51	5.604396	0.255
359	3	1	\$1.86	0.84%	0.62	5.181058	1.86
77	3	1	\$0.35	3.90%	0.116667	4.545455	0.35
103	1		\$0.35	0.97%	0.35	3.398058	0
72	0		\$0.14	0.00%	0	1.944444	0
111	1		\$0.68	0.90%	0.68	6.126126	0
245	4	4	\$1.28	1.63%	0.32	5.22449	0.32
228	5		\$1.03	2.19%	0.206	4.517544	0
115	1		\$0.43	0.87%	0.43	3.73913	0
79	3		\$0.37	3.80%	0.123333	4.683544	0
300	12	4	\$3.15	4.00%	0.2625	10.5	0.7875
79	6	3	\$0.37	7.59%	0.061667	4.683544	0.123333
204	14	3	\$1.31	6.86%	0.093571	6.421569	0.436667
189	10	1	\$0.69	5.29%	0.069	3.650794	0.69
2697	74	39	\$20.16	2.74%	0.272432	7.474972	0.516923
1475	66	36	\$18.82	4.47%	0.285152	12.75932	0.522778
601	16	6	\$2.88	2.66%	0.18	4.792013	0.48
629	15	4	\$2.58	2.38%	0.172	4.101749	0.645

Step 2: Observations from the Metrics

Here we can see the summarized performance of all ads **grouped by platform**.

The table shows calculated metrics such as **CTR, CPC, CPM, and CPL** for each platform, giving a quick overview of how each ad and platform is performing.

Row Labels	Average of CTR	Average of CPC	Average of CPM	Average of CPL	Count of Amount Spent	Sum of Impressions	Sum of Clicks	Sum of Results
Audience Network	0.88%	0.042019231	2.670126667	0.037307692	13	328	10	3
Facebook	3.43%	0.171834964	4.878343182	0.703026852	164	491955	18652	5220
Instagram	3.23%	0.237204194	7.155813576	0.719518377	164	431205	15667	5761
Messenger	0.00%	0	0.433333333	0	20	62	0	
Uncategorized	0.00%	0	0	0	10	0	0	21
Grand Total	2.98%	0.182287526	5.436603832	0.630141287	371	923550	34329	11005

1. Platform Performance Differences:

- Facebook and Instagram have sufficient data and show meaningful CTR, CPC, CPM, and CPL values.
- Audience Network, Messenger, and Uncategorized have very low or missing data, making their metrics unreliable.

2. Initial Insights:

- CTR:** Highest on Facebook (3.43%), slightly lower on Instagram (3.23%).
- CPC:** Instagram has a higher cost per click (\$0.237) compared to Facebook (\$0.172).
- CPL:** Facebook and Instagram show similar cost per lead (\$0.70), Audience Network is very low but based on very few clicks/leads.

3. Data Limitations:

- Ads with 0 Impressions or 0 Results were treated as 0 to avoid errors.
- Limited data on some platforms means we should focus analysis primarily on Facebook and Instagram.

Here we can see the summarized performance grouped by **campaign name**, divided by both **platform (Facebook vs Website)** and **region (EU vs US)**.

The table highlights how different markets and platforms perform across the main metrics - **CTR, CPC, CPM, and CPL**, allowing us to compare efficiency between geographic regions and campaign types.

Row Labels	Average of CTR	Average of CPC	Average of CPM	Average of CPL	Count of Amount Spent	Sum of Impressions	Sum of Clicks	Sum of Results
Facebook Leads - EU	2.41%	0.177320388	3.643633911	0.939597949	76	175312	4368	872
Facebook Leads - US	4.21%	0.217656313	7.618470576	0.629489318	117	294540	13911	3605
Website - EU	1.88%	0.164222425	3.334525825	0.613571684	93	153016	3262	643
Website - US	2.99%	0.157809981	6.336375121	0.372477136	85	300682	12788	5885
Grand Total	2.98%	0.182287526	5.436603832	0.630141287	371	923550	34329	11005

1. Campaign Performance Overview:

- Facebook and Website campaigns are separated by region (EU and US), allowing comparison of geographic performance.
- US campaigns (both Facebook and Website) show higher CTR and Results, indicating better engagement and efficiency.
- EU campaigns tend to have higher CPL, suggesting they are less cost-effective in generating leads.

2. Initial Insights:

- Among all, Website - US achieves the lowest **CPL** (\$0.37) and strong **CTR** (2.99%), showing high cost efficiency.
- Facebook - US drives the highest **CTR** (4.21%) but also a relatively high **CPM** (\$7.62).
- EU campaigns (both Facebook and Website) underperform slightly in **CTR** and **CPL** compared to the US.

3. Data Reliability:

- All campaign groups have sufficient data volume for comparison
- This table provides a solid base to identify the top 3 performance problems in the next step.

Step 3: Top 3 Performance Problems

1. Low or Missing Data for Certain Platforms:

- Audience Network, Messenger, and Uncategorized show very low impressions, clicks, and results.
- CTR, CPC, CPM, and CPL metrics for these platforms are unreliable due to insufficient data.
- Impact: Any analysis including these platforms may lead to inaccurate conclusions.
- **Potential Fix:**
Focus primary ad spend and analysis on Facebook and Instagram, where data is robust. Simultaneously, allocate a small experimental budget to the low-data platforms to test their potential performance.
- **Expected Impact:**
Reliable analysis and decision-making based on robust platforms. If experimental budget generates sufficient impressions and clicks, we can evaluate their true cost-effectiveness.
- **Success Criteria:**
Main platforms maintain or improve CTR (3% - 4%) and CPL (\$0.60 - \$0.70).
Low-data platforms achieve at least 1,000 impressions and 50 clicks in the test period, enabling meaningful performance assessment.

2. High Cost per Lead (CPL) in EU Campaigns:

- Campaign-level data shows EU campaigns (Facebook Leads - EU and Website - EU) have higher CPL (\$0.61 - \$0.94) compared to US campaigns (\$0.37 - \$0.63).
- Indicates EU campaigns are less cost-effective in generating leads.
- **Potential Fix:**
Optimize targeting, ad creatives, and bidding strategies specifically for EU campaigns.
Test new ad copy, audiences, and campaign structures to reduce cost per lead.
- **Expected Impact:**
Reduce EU CPL to \$0.37 - \$0.63, increasing ROI and improving cost-efficiency of ad spend. Success is measured by lower CPL with stable or higher lead volume.
- **Success Criteria:** EU campaigns achieve CPL comparable to US campaigns (\$0.37 - \$0.63) while maintaining or increasing total leads.

3. CTR and Engagement Variability Between Platforms and Regions:

- Facebook - US shows the highest CTR (4.21%) but also higher CPM (\$7.62), while Website - EU has lower CTR (1.88%).
- High variability indicates inconsistent ad performance and engagement across regions/platforms.

- **Potential Fix:**

Reallocate budget toward high-CTR campaigns (Facebook - US, Website - US) and test different creatives for lower-performing campaigns to improve engagement.

- **Expected Impact:**

Increase overall CTR by optimizing ad placement and creatives, reduce wasted spend on low-performing campaigns, improve lead quality by targeting more engaged audiences and achieve more consistent performance across regions and platforms.

- **Success Criteria:** Achieve more consistent CTR across platforms and regions (target $\geq 3\%$), reduce CPM for high-cost campaigns, and maintain or grow total leads while improving engagement quality.