BAMA 517 Assign 1 - Online Advertising Online Advertising

Group 18

- Julia Krumgant 40566465
- Junchi Ma 36189942
- Pranav Mehta 19184282
- 81120826
- Rachel Wang Andong Yang 81650798



Executive Summary: Online Ad Strategy Recommendation for 17th Week

Retrospect: Over a 16-week period, online ads achieved a 33.86% ROI, led by **exceptional returns from Reddit at 179.03%.** In comparison, Google, Facebook, and LinkedIn delivered ROIs of 38.11%, 9.91%, and 8.76%, respectively.

Budget reallocation strategy: Focus resources on the highest-performing platform and gradually maximizing profit within the highest single-week adjustment percentage from prior months to avoid risky shifts.



Scale up Reddit Ad spending to \$19,642, accounting for 63% of our total budget

- Exceptionally high ROI at 179%, yet had the smallest budget last quarter, prompting a scale-up.
- Outperforming CTR (2.07%) and Conversion Rate (17.56%), proving strong customer acquisition.



Decrease budget by 60% to \$2,750 and boost conversion rate by precisely targeting specific ad audiences.

- Lowest CTR (0.7%) & conversion rate (17%) indicate a lack of precision in targeting Ad audiences
- Cheapest Cost Per Thousand Impressions (\$29) promises a high ROI potential in future



Google



Decrease budget by 60% to \$5,013 to improve the quality of ad and increase CTR via targeted advertising.

ROI fell from 57% to 16% last guarter due to a CTR drop in September and October, likely from ad quality issues or platform limits, despite increased ad spending.

Decrease budget by 60% to \$3,604 to promote more high-margin products and boost average sales profit.

Profit per sale (\$31.34) is below other platforms (~\$40). Last quarter, lower ad spending in October improved CTR and ROI, suggesting optimal ad spend may be lower.



Appendix 1: 16-week Performance Analysis + Ad Resource Allocation Method

Platform	CTR	Cost Per Thousand Impression		Conversion Rate	GP per Sale		ROI on GP	
Facebook	→ 1.32%	\$	51.57	13.79%	\$	31.32	10%	
Google	→ 1.27%	\$	52.65	13.92%	\$	41.66	40%	
LinkedIn	4 0.71%	\$	28.98	10.97%	\$	40.55	9%	
Reddit	1 2.07%	\$	52.96	17.55%	\$	40.61	178%	

^{***} The values in the table represent the average for each metric across all months for each platform.

Total Money Spent on Ads in the last week		30,829.00			
Platform		16 Ad Spend	Fluctuation (Max in the -ve direction)	Weel	x 17 Ad Spend
LinkedIn	\$	6,854.00	-59.88%	\$	2,749.89
Facebook	\$	8,956.00	-59.76%	\$	3,604.13
Google	\$	12,578.00	-60.15%	\$	5,012.92
Reddit	\$	2,441.00		\$	19,462.06

Threshold to control the range of adjustments:

• Based on historical data, the adjustment for week 17 will not exceed the highest single-week adjustment percentage (The fluctuation percentage) observed over the past 16 weeks.

Formula to calculate the percentage of adjustments (The fluctuation percentage):

- Week 17 Ad Spend Allocation should be calculated as Week 16 Ad Spend Allocation multiplied by (1 ABS(Minimum historical fluctuation)). This formula is only applicable for Facebook, LinkedIn, and Google.
- For Reddit, the remaining budget after allocations to other channels will be invested.



Appendix 2: Online Ad Strategy Recommendation for 17th Week Visualization



