



BAMA 517 Assign 1 - Online Advertising

Online Advertising



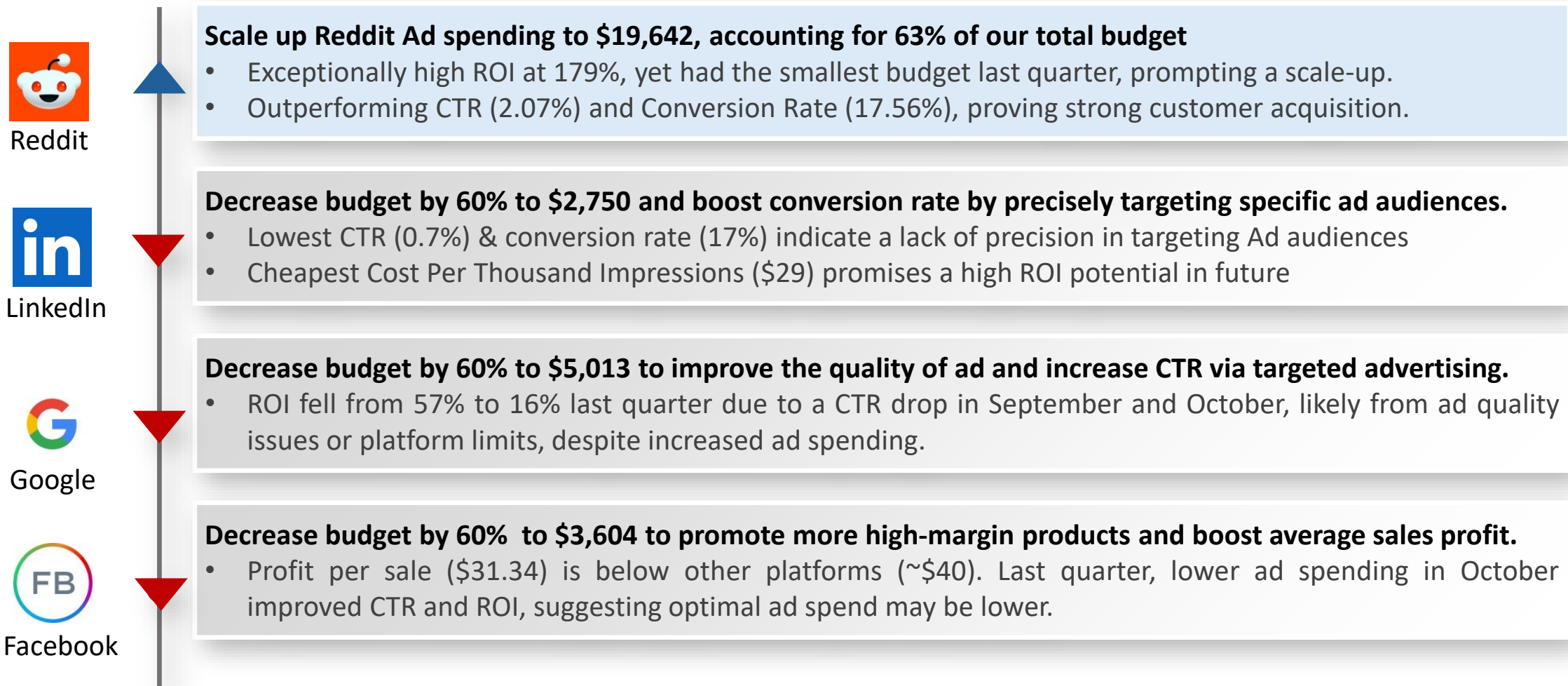
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Executive Summary: Online Ad Strategy Recommendation for 17th Week

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.



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	⬇ 0.71%	\$ 28.98	10.97%	\$ 40.55	9%
Reddit	⬆ 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	Week 16 Ad Spend	Fluctuation (Max in the -ve direction)	Week 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:

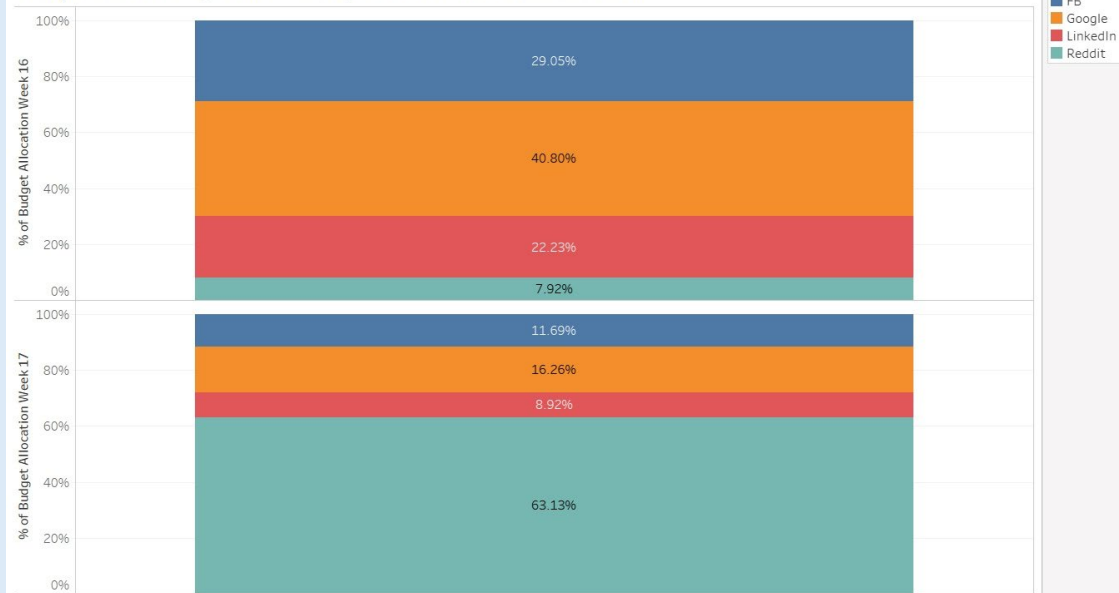
- Based on historical data, the adjustment for week 17 will not exceed the highest single-week adjustment percentage (**The fluctuation percentage**) observed over the past 16 weeks.

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 $(1 - \text{ABS}(\text{Minimum historical fluctuation}))$. 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

Comparison of Budget Allocation by Platform: Week 16 vs. Week 17



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