Measuring ROI on Sponsored Search Ads-Bazaar

1. Myra and Bob discuss the notion that a branded search (e.g. "Bazaar shoes") may result in an organic click even when a paid ad is not present. Of course, this presumes Bazaar has an organic link in the SERP. How would a non-branded search (e.g. "shoes") affect this conversation and what assumptions would be made?

Myra raised this concern because when Bob calculated the ROI of paid search, the clicks from paid search could be actual users that could have been landed through the organic channel. So this group of users could have cost $0 instead of $0.60/click. But the assumption is that Bazaar has a high ranking organic link in the SERP as well as no other competitor is bidding on Bazaar's branded keywords. Otherwise, these paid search clicks may not be able to generate from organic searches.
But for non-branded search, the user has a much lower chance to be those looking for Bazaar's website. This is an important channel to acquire new users. Without paid search, this group of clicks are unlikely to be generated from organic links, the assumption is that Bazaar is not the top result when searching non-branded keyword (eg. shoes). However, if Bazaar is already the largest shoe brand and rank no.1 when people search for shoes, there is not much need for them to bid too much on this non-branded keyword for the same reason. This group of clicks could be generated by organic links. Generally, a brand should bid more on the non-branded keywords for the key products. These could win some new customers that could otherwise land on competitors' websites.

2. Based on the information provided in Exhibit 2, what data would you assess to either confirm or challenge Bob's ROI analysis?

Bob's calculation missed 2 important points to justify the ROI. Though we may not have direct data, they can be inferred from the data provided in Exhibit 2.
1. We need to find clicks from the paid search that could have been through organic links. People searching for branded keywords are purposely trying to reach Bazaar's products, they could go through either paid search links or organic links. To the users, these 2 groups of links make no difference. Instead of calculating these clicks as profit per click, they should be treated as an unnecessary cost. Profit generated by those clicks should be excluded, and that profit should be credited to organic links.
2. We need to find the clicks dropped due to seasonality. It could be the case that even without turning off Google paid search, the overall clicks will still drop. Based on the

assumption provided, the user demographics are identical for Google and Bing. So we can estimate the drop of overall clicks for the last 3 weeks from Bing search's performance. The assumption is that clicks from Google search will drop proportionally as clicks from Bing search.

3. Based upon your approach in the previous question, what are your findings (the result of your analysis) regarding paid search ROI? Compute ROI, clearly show your calculations and list any assumptions that have been made.

Bob's calculation

$$ROI = \frac{(conversion\ rate) \times (average\ margin\ per\ conversion) - (CPC)}{CPC} = \frac{12\% \times \$21 - \$0.6}{\$0.6} = 320\%$$

Take clicks that could be generated by organic links and seasonality into consideration:

Google							
Week	1	...	12	**Avg 1~9**	**Avg 10~12**	**delta**	**delta %**
Sponsored	32269	...	0	31390	0	31390	100.00%
Organic	127876	...	146584	125195	148477	-23282	-18.60%
Total	160145	...	146584	156585	148477	8109	5.18%
Bing							
Week	1	...	12	**Avg 1~9**	**Avg 10~12**	**delta**	**delta %**
Sponsored	3965	...	3754	3920	3774	146	3.72%
Organic	15805	...	15036	15677	15127	550	3.51%
Total	19770	...	18790	19597	18901	696	3.55%

Clicks generated by Google paid search should be (reduction in total Google searches) minus (seasonality drops we observed from Bing searches).

$$Reduction\ in\ Google\ searches = \frac{8109}{156585} = 5.18\%$$

$$Seasonality\ drops\ from\ Bing\ searches = \frac{696}{19597} = 3.55\%$$

$$Clicks\ from\ paid\ search = 5.18\% - 3.55\% = 1.62\%$$

Thus ROI is the (profit from paid search clicks) divided by (the cost of paid searches)

$$paid\ search\ clicks = 156585 \times 1.62\% = 2537$$

$$profit\ from\ paid\ search\ clicks = 2537 \times \$2.52 = \$6393.24$$

$$cost\ of\ paid\ searches = 31390 \times \$0.6 = \$18834$$

$$ROI = \frac{6393.24 - 18834}{18834} = -66\%$$

From the above calculation we can see that the ROI for current Google paid search is -66%. Bazaar is losing money for every click generated from Google paid search.