

Air France Internet Marketing: Optimizing Google, Yahoo!, MSN, and Kayak Sponsored Search: From Harvard Business Review

Question 1: Identifying Performance Metrics

Data was calculated for Air France Internet Marketing from various publishers and search engines such as Google, Yahoo, MSN, and Overture, which also includes various campaigns run by them. To optimize these strategies and their performance first we need to identify the metrics. In this case, the various metrics which can be considered are:

1. **Clickthrough Rate (CTR)** – Also considered as “Engine Click Thru %” in the “DoubleClick” sheet of the excel file. It is calculated by dividing number of users who clicked that search engine or publisher to the number of impressions (customers reaching to certain data point)
2. **Average Cost Per Click (CPC)** – It is the actual cost we pay when the user clicks on ads. This can be calculated by dividing the click charges by Number of clicks.
3. **Transaction Conversion Rate (TCR)** – It is defined as the percentage of customers who complete the purchase after clicking through a link. It is crucial for every campaign and publisher.
4. **Take Rate** – It is also known as “Probability of Purchase”. It is calculated as $CTR \times TCR$
5. **Net Revenue** – It is a ROI metric and is calculated as “Amount – Cost” in the excel sheet.
6. **Return On Ad (ROI)** – In this case, it is calculated as “Net Revenue - Cost/Cost” in the “DoubleClick” sheet. It is very important metric for taking any decisions on changes to other metrics.

In attached excel file, all the performance metrics are calculated are highlighted in yellow.

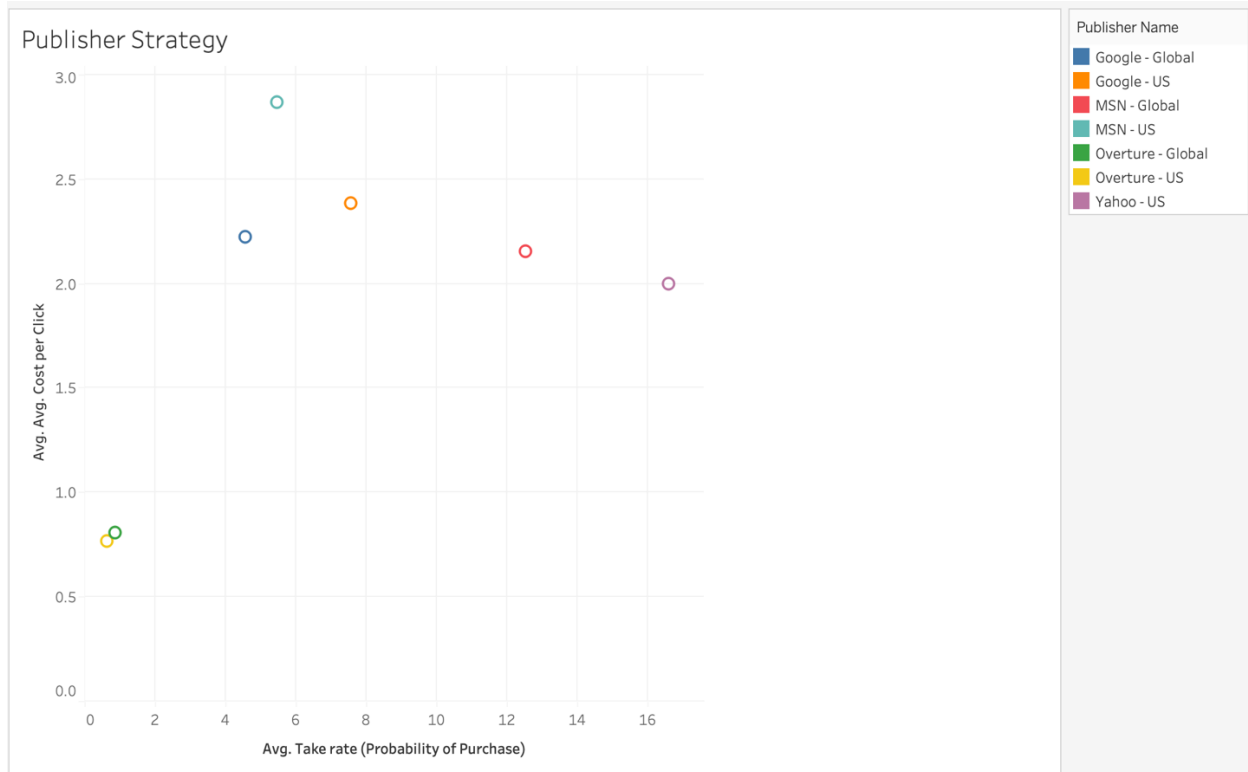
Question 2: Optimizing Publisher Strategy

The publisher strategy can be optimized by CPC and Take Rate (purchase probability). Using the data from excel sheet, a pivot table has been created for each publisher that calculates the “Average Take Rate” and “Average Cost per click”.

Publisher Name	Data	
	Average of Take Rate	Average of Avg. Cost per Click
Google - Global	4.56321325	2.224959422
Google - US	7.574083135	2.383941762
MSN - Global	12.54784416	2.152998203
MSN - US	5.459748114	2.867470078
Overture - Global	0.862216558	0.804758848
Overture - US	0.64831062	0.763920558
Yahoo - US	16.61245059	1.998875657
Grand Total	6.809491367	1.89023958

Using the data from the pivot table above, we can summarize that MSN – Global and Yahoo – US publishers have high take rate and high CPC, but this can be optimized by identifying the higher ROI publishers and adapting their activities to increase their probability of Revenue. Another best strategy would be to cut down both Google (US, Global) and MSN – US publishers as they have ended in the High Cost and Low Take Rate region. The publishers which require increase in both TCR and CTR are Overture – US and Overture Global as they have low Take Rate and Low probability of purchase. The best strategy for any Publisher is when Probability of Transaction is below average, and CPC is above average, and there are no publishers in this quadrant. But if MSN

– Global and Yahoo – US are optimized by following the high ROI publisher’s strategies they can be the best target to increase funding. The below chart depicts the same as in the attached pivot table screenshot.



Question 3: Optimizing Campaign Strategy

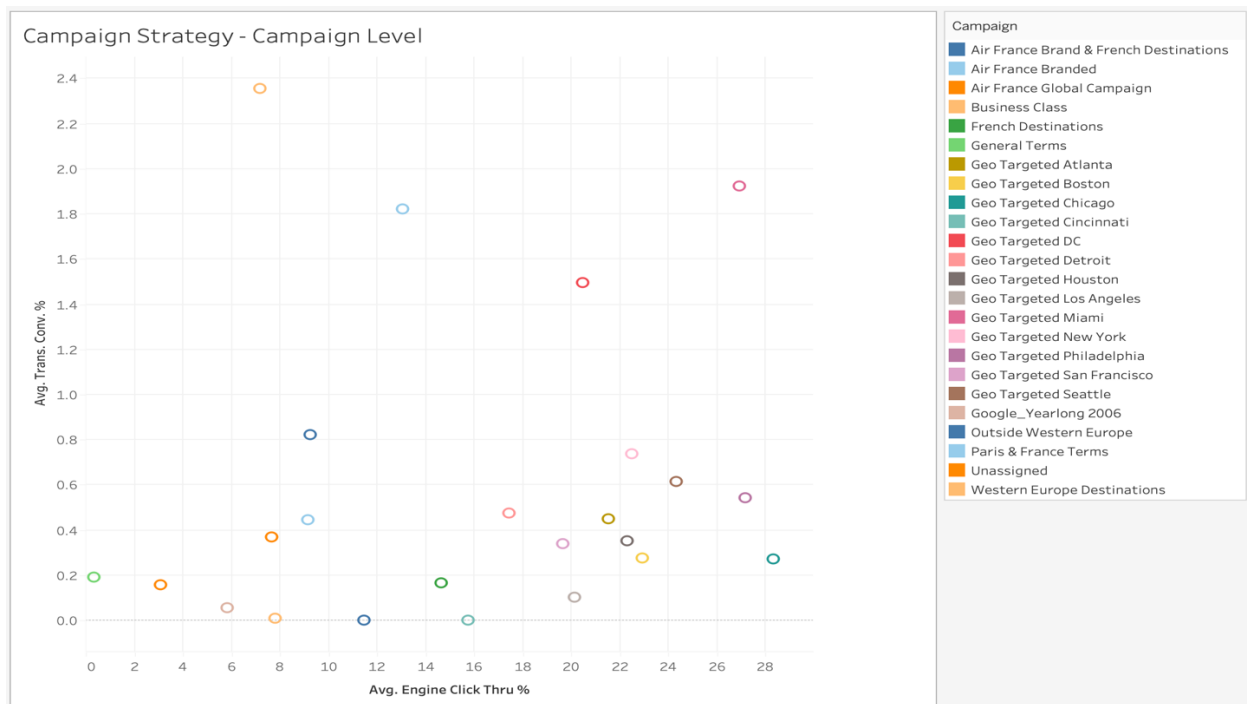
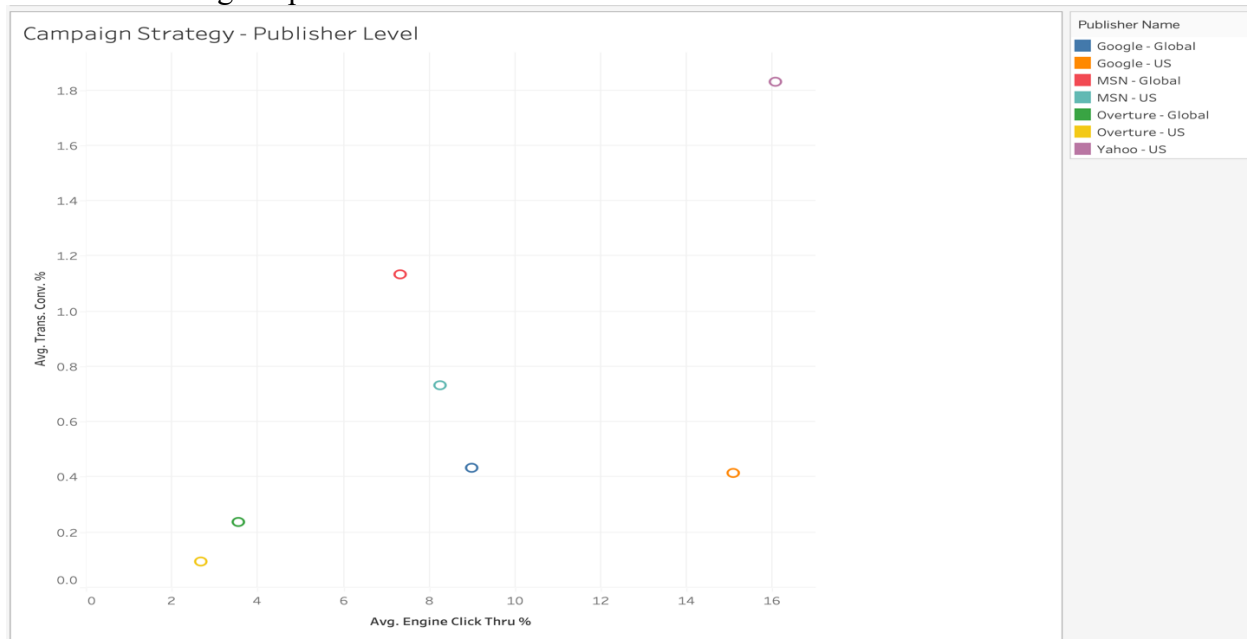
The Campaign Strategy gives us a chance to identify any campaign changes which might help to deliver the most revenue from within the publishers. It is calculated by using CTR and TCR. A pivot table has been created using Engine Click Thru % and Trans Conv % for each publisher.

Publisher Name	Data	
	Average of Engine Click Thru %	Average of Trans. Conv. %
Google - Global	8.994484886	0.432664146
Google - US	15.08974547	0.414798732
MSN - Global	7.33560489	1.133349123
MSN - US	8.26352104	0.731464797
Overture - Global	3.547863395	0.235710141
Overture - US	2.672846351	0.094894724
Yahoo - US	16.05901866	1.828814124
Grand Total	11.14145058	0.569255075

The above pivot table depicts that Yahoo – US campaigns are doing good and there is no change required regarding TCR and CTR but to maintain the same costs. Whereas for MSN – Global publisher, as they belong to high TCR and low CTR region, which in turn explains that “when a customer reaches the click, they actually buy but they are not clicking through enough”, based on this we can optimize the campaign’s CTR by focusing on improving the search side improvements

such as keywords and ad texts. For MSN – US and Google’s both US and Global publisher’s campaigns have high CTR but low TCR, which explains that “customers are clicking enough but they do not buy enough”, this can be resolved by focusing on the website and the user interface improvements as it increases visibility in the search engines. Overture – US and Overture – Global have ended up in the low CTR and low TCR region. This explains that we need to focus on both search-side and web-site improvements and another optimized strategy in this case is to cut down the low profit campaigns that are included in this region.

To depict these optimizations more user friendly, I included two graphs which were analyzed in the Tableau using the pivot table attached above.



Question 4: Calculating KPI Impact

KPI Metrics in this example I considered the ROI or ROA (Return on Ads) and based on the information and analysis generated from Question 2 and Question 3, the following three cases are optimized to bring the high ROA as possible.

Case 1 – From the “Publisher Strategy” graph we have observed that “MSN – Global and Yahoo – US” are the best target to optimize the Average Cost per Click for higher ROA results. Based on this I created a pivot table for both publishers as shown below and included in the attached excel sheet as “KPI Impact – Case 1”

	A	B	C	D	E
1	Publisher Name	MSN - Global			
2					
3		Data			
4		Average of ROI	Average of Net Revenue	Average of Total Cost	Average of Avg. Cost per Click
5	Total	10.64918578	1347.109975	122.8319438	2.152998203
6					
7	If Avg Cost Per Click is reduced by 10% for MSN Global Publisher				
8		11.18531243	1236.558032	110.5519438	1.937998203
9					
10					
11					
12	Publisher Name	Yahoo - US			
13					
14		Data			
15		Average of ROI	Average of Net Revenue	Average of Total Cost	Average of Avg. Cost per Click
16	Total	10.34661856	1316.678938	72.75247972	1.998875657
17					
18	If Avg Cost Per Click is reduced by 10% for Yahoo - US Publisher				
19		19.10894379	1251.201658	65.47727972	1.799075657
20					

Here, for MSN – Global if Avg. Cost per Click is decreased by 10%, then Total costs are also decreased by 10%, which in turn increases the ROA for MSN – Global slightly by 1.05%.

On the other hand, if Avg. Cost per Click is reduced by 10% for Yahoo – US, then the ROA increases with significant amount of about 1.9%. Here by we can also state that Yahoo - US publisher will perform well in the “Publisher Optimization”.

Case 2 – As per the “Campaign Strategy” it was represented that MSN – Global has high TCR but low CTR, as stated this can be optimized and better ROA results can be obtained by focusing on increasing the “Engine Click Rate %” for keywords. To depict this, I created a pivot table as below also attached to the excel sheet as “KPI Impact – Case2”.

	A	B	C	D	E
1	Publisher Name	MSN - Global			
2					
3		Data			
4	Campaign	Keyword Group	Average of ROI	Average of Engine Click Thru %	Average of Trans. Conv. %
5	Air France Brand & French Destinations	Air France Brand	4.214186921	15.00718978	0.237956413
6		Air France Website	8.948944673	16.27400846	0.581595584
7		Bordeaux	-1	5.833803877	0
8		France	34.95852535	4.864239802	3.571428571
9		France Branded	-1	5	0
10		Lyon	-1	2.148725739	0
11		Marseille	-1	0.763358779	0
12		Nice	-1	5.703440725	0
13		Paris	0.295015783	3.928357387	0.226058248
14		Paris Branded	-1	37.18487395	0
15	Air France Brand & French Destinations Total		10.64918578	7.33560489	1.133349123
16	Grand Total		10.64918578	7.33560489	1.133349123
17					

In the above picture, the column “D” is the CTR. One scenario is that, if CTR increased for “France” keyword Group in “Air France Brand & French Destinations”, then we can notice more increase in the ROA or ROI as it already has higher ROA among various Keyword Groups. Second scenario is like first, i.e., increase the CTR percentage for Keyword Groups “Air France Brand” and “Air France Website”, these can increase ROA significantly. Third scenario is to cut down the CTR for “Paris Branded” Keyword Group as it has 0 TCR %.

Case 3: Based on the “Campaign Strategy” one way to optimize the ROA for both Overture (US, Global) publishers is by increasing the TCR as it was plotted in below average CTR and below average TCR region. The pivot table attached below shows us more relevant information.

	A	B	C	D	E
1	Publisher Name	Overture - Global			
2					
3		Data			
4		Average of Trans. Conv. %	Average of Total Cost	Average of Net Revenue	Average of ROI
5	Total	0.235710141	116.2673818	661.4626363	4.484659198
6					
7	If TCR is increased by 10% for Overture - Global Publisher				
8		0.259280141	104.6406818	661.4626363	6.321276054
9					
10					
11	Publisher Name	Overture - US			
12					
13		Data			
14		Average of Trans. Conv. %	Average of Total Cost	Average of Net Revenue	Average of ROI
15	Total	0.094894724	214.7898252	310.8277996	1.216156233
16					
17	If TCR is increased by 10% for Overture - US Publisher				
18		0.104383724	193.3198252	310.8277996	1.607842337
19					
20					

Considering Overture – Global publisher if we increase the TCR percentage by 10% the total cost decreases by 10% respectively (As they are directly proportional) this increases the ROA for Overture – Global. The same scenario is considered for Overture - US to show the impact of ROA when TCR percentage is increased by 10%.

Case 4: Kayak – Based on the “Kayak” information available, the ROA it returns is calculated as 64% and it is presented in “I” column of Kayak sheet in the attached excel.

If Kayak's ROA is targeted to increase by 10% either of the below two cases works well.

- If Media Cost is reduced by 15%
- If Avg. Ticket rate is increased by 10%

A

B

C

D

E

F

G

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