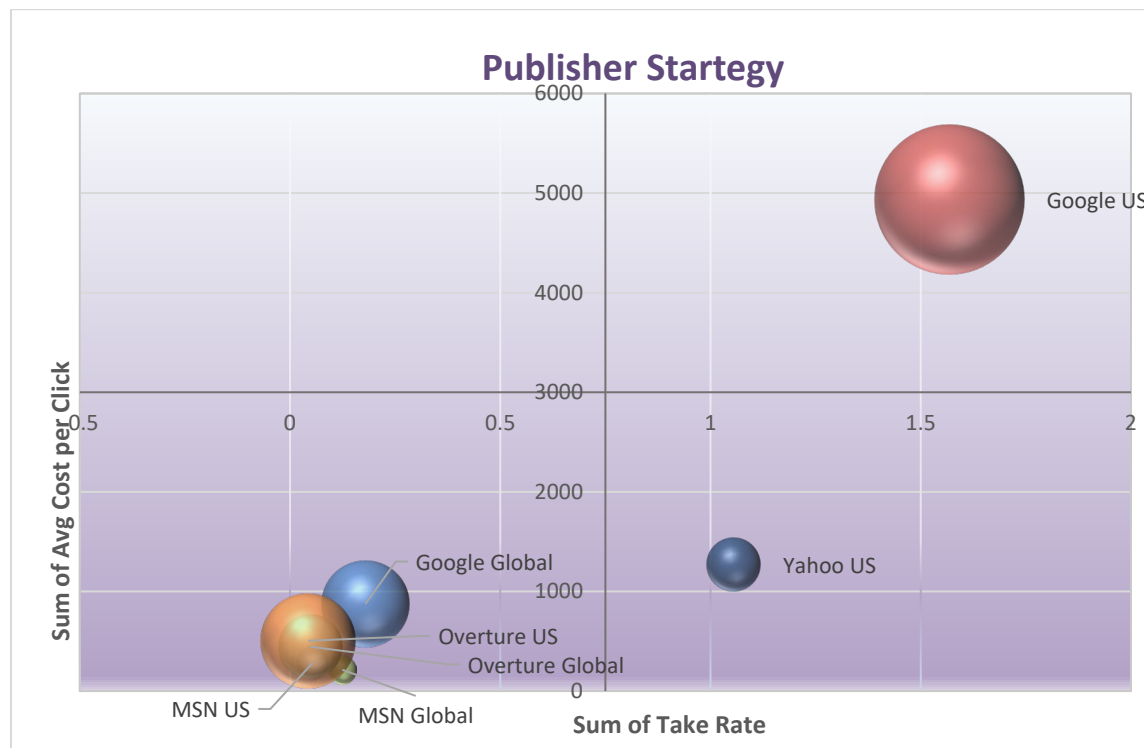This article talks about advertisement campaigns conducted by Air France on different platforms.

1.Identifying performance metrics.

Publisher Name	Sum of Engine Click T	Sum of Trans. Conv. %	Sum of Take Rate	Sum of Avg. C	Sum of Total V	Sum of Total Cost	Sum of ROA
Google - Global	3534.83256	170.0370095	0.179334281	874.4090527	797	120946.712	1843.33771
Google - US	31250.86287	859.0481749	1.568592617	4937.143388	1550	353640.5989	2530.43395
MSN - Global	726.2248841	112.2015632	0.124223657	213.1468221	129	12160.36244	1054.26939
MSN - US	809.8250619	71.68355011	0.053505532	281.0120677	140	16098.48741	115.725596
Overture - Global	1961.968457	130.3477081	0.047680576	445.0316427	372	64295.86214	2480.01654
Overture - US	1766.751438	62.7254124	0.042853332	504.9514889	289	141976.0745	803.87927
Yahoo - US	10197.47685	1161.296968	1.054890612	1269.286042	662	46197.82462	6570.10279
Grand Total	50247.94212	2567.340387	3.071080607	8524.980504	3939	755315.922	15397.7652

- Engine Click Through % is CTR: Click-Through Rate which indicates the percentage of users who go through the link.

- Trans Conv % is TCR: Transaction Conversion Rate which indicates the percentage of users who make transaction after clicking through the website.

- Take Rate is calculated using CTR*TCR. It gives the overall percentage of users who not only click on an advertisement (CTR) but also take a specific desired action.

- Avg Cost per Click is CPC which indicates the average cost and advertiser pays for each click on the ad.

- Total Volume of Bookings indicates the number of transactions that took place due to the ad campaign.

- Total Cost is calculated using (No. of Clicks) *(Avg cost per click).

- ROA is Return on Ad; it is calculated by Net Revenue/Total Cost. It indicates how efficiently a company is using its assets to generate profits.

2. Optimize publisher strategy

Publisher Startegy

(Bubble chart with axes "Sum of Avg Cost per Click" (vertical, 0–6000) and "Sum of Take Rate" (horizontal, −0.5 to 2). Bubbles labeled: Google US, Yahoo US, Google Global, Overture US, Overture Global, MSN US, MSN Global.)

Note: Total cost is taken as bubble size. If the Total Cost is high with no good ROA, the publisher needs to consider cut downing the cost.

Top LEFT Quadrant – HIGH CPC, LOW TAKERATE

None

Top Right Quadrant – HIGH CPC, HIGH TAKERATE

Google US is the only publisher in this quadrant. The high TCR indicates that it has high chances of a transaction taking place. So, Google US should focus on decreasing cost-per-click as a significant number of clicks are resulting in purchases or desired actions. In this way Google US could make more profits.

Bottom Right Quadrant – LOW CPC, HIGH TAKERATE

Yahoo US is the only publisher in this quadrant. This quadrant is considered to be an ideal case as the publisher is achieving a high take rate while keeping the cost-per-click relatively low. So, Yahoo US should continue doing what it's been doing as its giving good return on amount spent.

Bottom Left Quadrant – LOW CPC, LOW TAKE RATE

All the other publishers (except Google US and Yahoo US) lie in the quadrant. This may suggest that the publishers are not spending enough money on advertising thus resulting in low actions or transactions. Publishers should focus on better campaigning, spend more money and use better keywords to reach a larger number of people.

3. Optimize campaign strategy

GOOGLE US Campaign Strategy
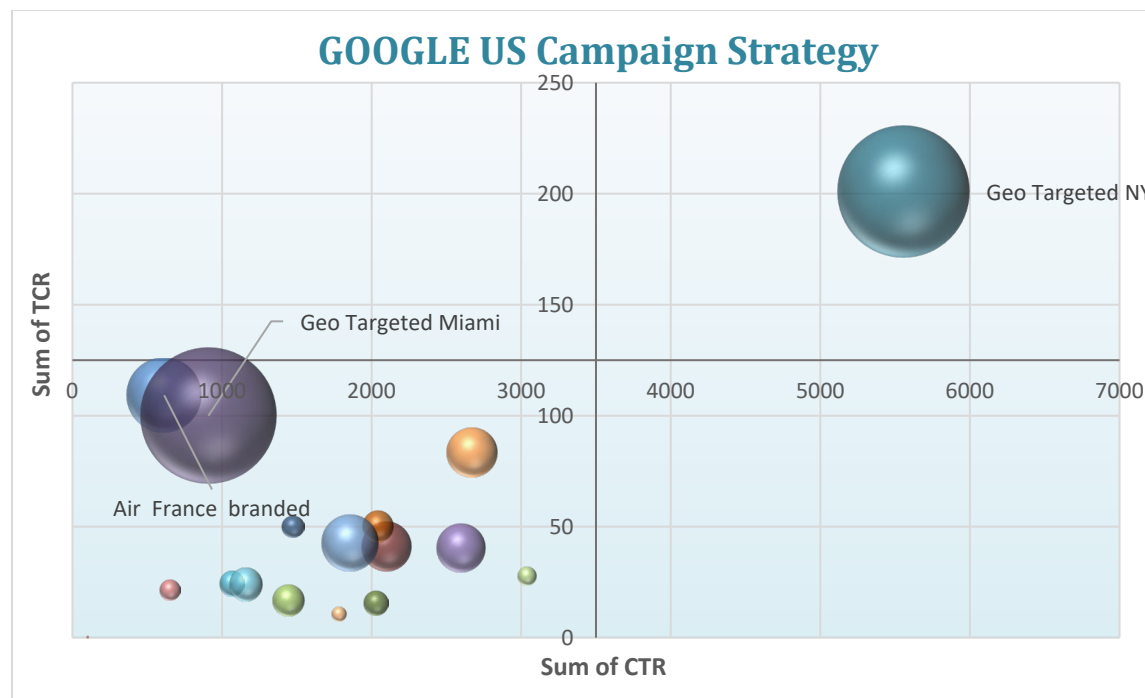
Note: Take Rate is considered as the bubble size in the Campaign Strategy. Higher the volume indicates high probability of actions taking place.

YAHOO US Campaign Strategy
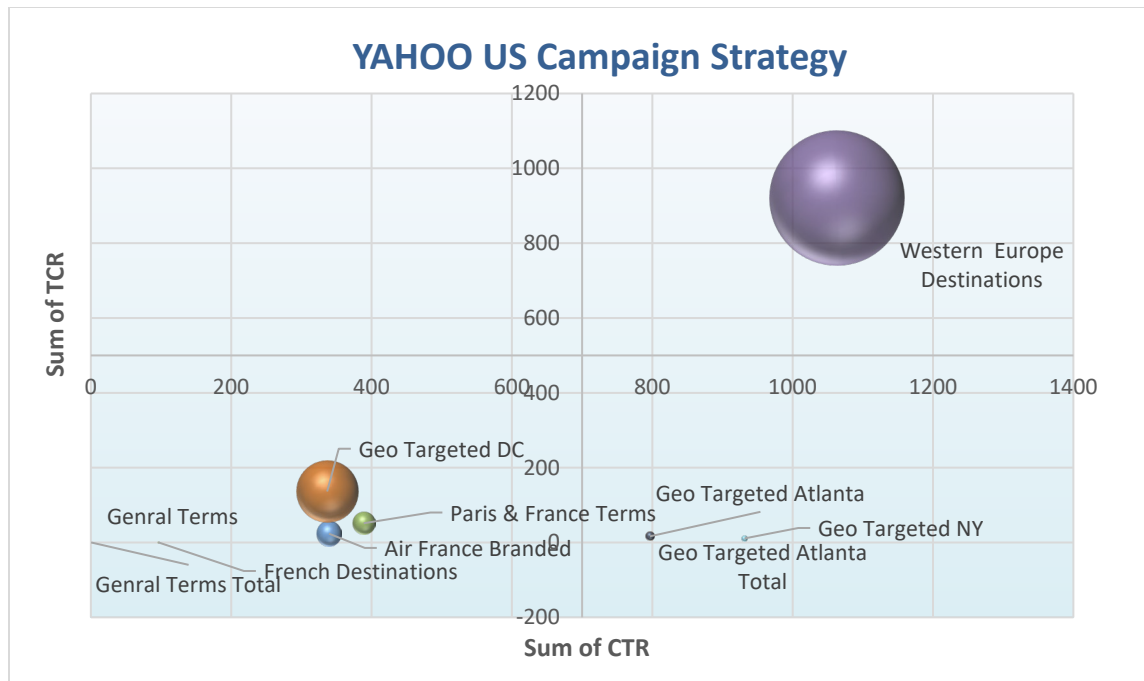
Top Left Quadrant – HIGH TCR, LOW CTR

None

Top Right Quadrant – HIGH TCR, HIGH CTR

GOOGLE US

Geo Targeted New York is the only campaign in this region.

YAHOO US

Western Europe Destinations is the only campaign in this region.

This quadrant is an ideal case as a significant number of clicks on the website are converted into desired actions. Therefore, Geo Targeted New York should continue in the same way as it is attracting a good number of users and who are further making transactions.

Bottom Right Quadrant – LOW TCR, HIGH CTR

GOOGLE US

None

YAHOO US

Geo Targeted Atlanta, Geo Targeted Atlanta Total, Geo Targeted NY.

These campaigns have users visiting their website but unable to convert them into transactions.

Making websites more creative and attractive can enhance the conversion rate.

Bottom Left Quadrant – LOW TCR, HIGH CTR

GOOGLE US

All other campaigns (except Geo Targeted NY) are in this region.

YAHOO US

Air France Branded, Geo Targeted DC, Paris & France Terms, French Destinations, General

Terms, General Terms Total. These campaigns are in this region.

The above-mentioned campaigns need to improve on both metrics. Their campaign needs to be

reviewed by analyzing their target audience and making improvements to their website.

NOTE: There are few campaigns in the YAHOO US which have zero TCR which implies they

are unable to convert the potential clicks into desired actions. This may be lack of trust or

website issues. They must concentrate on user experience and marketing issues.

4. Calculate KPI impact (considering CPC only).

KPI					
Publisher Name	Sum of Avg. Cost per Click	Decreased Sum of Avg CPC by 7%	Sum of ROA	Sum of New ROA	% increase in Sum of ROA
Google - Global	874.4090527	813.200419	1843.337715	2011.664209	9.13%
Google - US	4937.143388	4591.543351	2530.433951	2876.703173	13.68%
MSN - Global	213.1468221	198.2265445	1054.269392	1141.074615	8.23%
MSN - US	281.0120677	261.3412229	115.7255963	131.8124691	13.90%
Overture - Global	445.0316427	413.8794277	2480.016536	2708.308104	9.21%
Overture - US	504.9514889	469.6048847	803.8792697	914.1389997	13.72%
Yahoo - US	1269.286042	1180.436019	6570.102787	7112.422352	8.25%
Grand Total	8524.980504	7928.231869	15397.76525	16896.12392	9.73%
Assumption made - Decreased Sum of Avg CPC by 7%					
Result:					
Sum of ROA increased by 9.73%					

By decreasing the CPC by 7 %, overall ROA increased by 9.73%. Which indicates we are on the

right direction and decreasing CPC can be considered as one of the optimal solutions to increase

ROA.

1) Both Yahoo Us and Google US have high Engine Click through % as shown below. If we compare the data, the number of users clicking through Yahoo US (10197) is nearly one third of the Google US (31250). Now, when we look at the Campaign Strategy graphs, we can observe that the scaling for the plot is different. We know that a profitable campaign should lie in the High TCR and High CTR region. If we plot both the Campaign Strategies on the same scale, the profitable **Yahoo US campaign: Western Europe Destinations** will not be in in the ideal region for **the Google US**. Similarly, **NY campaign of Google** would have the **highest click-through in Yahoo** with second best transaction click rate (200.9) compared to Western (920).

Publisher Name	Sum of Take Rate	Sum of Avg. Cost per Click	Sum of Total Cost	Sum of Engine Click Thru %	Sum of Trans. Conv. %
Google - US	1.568592617	4937.143388	353640.5989	31250.86287	859.0481749
Yahoo - US	1.054890612	1269.286042	46197.82462	10197.47685	1161.296968
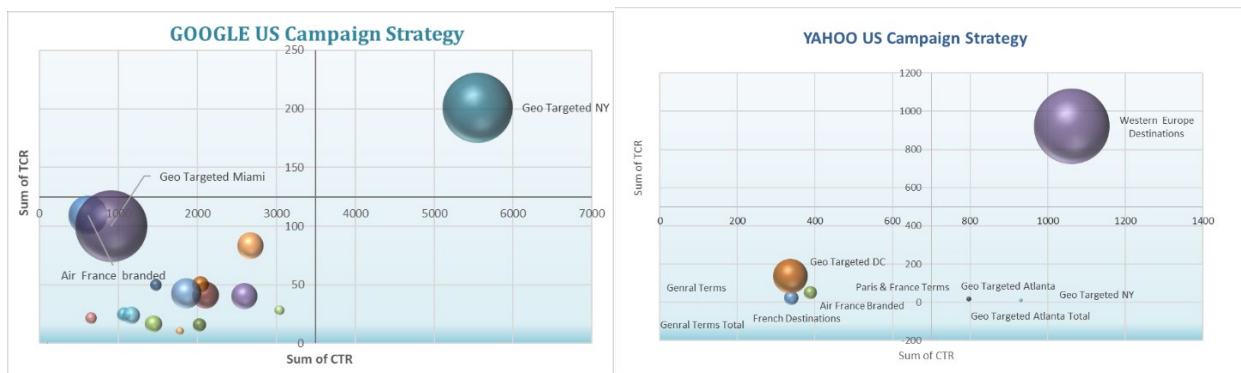
This suggests that even though Yahoo US has a better transaction conversion rate (1161) than Google US (859), it needs to focus on increasing the engine click through. For better ROI Yahoo US needs to focus on increasing the CTRS, as it already has better TCR those clicks can be converted to transactions. The improvements need to be made on the search-side by using better Keywords, Ads. Using keywords following "BroadMatch" would help. Landing page recommendations: Including a catching Headline with extra information such as phone numbers, map links can attract more users.

2)Best Performing Campaign

Google US and Yahoo US are the topmost publishers with high Take Rate and ROA. (fig1). Let's look at the best performing campaign in **Google US: Geo Targeted NY**. It has the highest Take Rate (0.47) and CTR (5554) compared to the others with CPC (599.45). It has the trans conv rate of 200.98 which indicates most of the clicks are getting converted to required actions. Therefore, the other campaigns which have TCR but lack CTR should focus on search-side improvements to increase their visibility in search engines. By looking the fig 2, one can also observe that Geo Targeted NY uses a lot of Keywords with type as BroadMatch as it helps to promote even with misspellings, synonyms. Similar rules can be followed by other campaigns to increase their reach. And also, the bid strategy of NY involves being average rather than spending too much money on the ad, this way it can optimize ROA. It would be a waste of resources if a campaign invests a lot in advertising and is unable to convert the clicks into transactions. By increasing QS, the campaign can reduce the Actual CPC spent and optimize the ROA.

Fig1   Fig 2

Publisher Name	Sum of Take Rate	Sum of ROA
Google - Global	0.179334281	1843.337715
Google - US	1.568592617	2530.433951
MSN - Global	0.124223657	1054.269392
MSN - US	0.053505532	115.7255963
Overture - Global	0.047680576	2480.016536
Overture - US	0.042853332	803.8792697
Yahoo - US	1.054890612	6570.102787
Grand Total	3.071080607	15397.76525

Campaign	Publisher Name	Keyword	Match Type	Bid Strategy
⊟Geo Targeted New York	⊟Google - US	⊟air france flight	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	
		air france flight Total		
		⊟athens airfare	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	
		athens airfare Total		
		⊟athens airfares	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	
		athens airfares Total		
		⊟athens airline	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	
		athens airline Total		
		⊟athens airline tickets	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	
		athens airline tickets Total		
		⊟athens airlines	⊟Broad	Position 5-10 Bid Strategy
			Broad Total	

3) Recommendations for Air France:

Graphs have been plotted to Optimize both Publisher and Campaign strategies using CPC, Take Rate, TCR and CTR. For Publisher strategy the ideal quadrant is to have high Take Rate and Low CPC. Similarly for the Campaign Strategy the ideal quadrant is to have a high TCR and

high TCR. Air France requires improving both the web-side and search side copy while maintain low CPC. Recommendation for both the Strategies include as follows.

Strategy	Case	Recommendation
Publisher	Low Take Rate High CPC	Cutting these down is the better solution
	Low Take Rate Low CPC	Increate CTR and TCR buy maintaining CPC
	High Take Rate High CPC	Reduce CPC by fowling ROI activities
Campaign	Low CTR High TCR	Increase CTR for key words by improving search side.
	High CTR Low TCR	For better TCR increase the visibility by making improvements at the Web-side/ UI

Let's look at what can be done to improve these in terms of digital marketing:

Before every bidding Air France need to analyze the publisher by using different analytical tools e.g. A/B testing, to have a rough idea of different landing pages and how their campaigns are performing by various publishers. To increase ROI, it needs to concentrate on increasing revenue per transaction thus improving net revenue. Overall, Air France can improve in the areas of web-side, search- side and decreasing CPC for both the Publisher and Campaign strategies. A few suggestions to improve the performance are: Optimizing the ROI using Key Performance Indicators. These can be identified based on bid strategy and keyword groups. Concentrate on using broader keywords than multiple keywords.

4) CTR and Landing page Recommendations:

The main strategies that can be used to improve CTR and Landing page experience are keywords and Ad groups. This can be done using Google Ads. Google Ads is a digital advertising solution which helps to turn users into potential leads. It also helps in increasing sales, site visits.

Google Ads: it includes different strategies, keywords, campaign types to increase CTR. It focuses on customer targeting using Ad groups and Key words.

Ad groups: For Air France we can have groups like "France", "Air France" to help engine recommend these too.

Keywords: I would suggest using "BroadMatch" type for more reach instead of using multiple keywords with similar words.

Ad Relevance: measures how well an ad matches what the user is searching for. It prevents overpaying / investing. As the system is dynamic is dynamic ad rank determines the actual CPC. Higher Quality Score improves Ad rank and can lead to lower process and better ad positions. Adding negative words, being device/region specific, using relevant words are few steps that improve QS.

Landing Page recommendations: A relevant landing page yields higher quality score. A good landing page text ad should have a catchy headline such as Percentage Off, Deals. Adding extra information such as contact details, external links (to learn more about the product). Video/Display ads help in increasing visibility.

5) Bidding Strategy for Air France:

One strategy to consider is 'Programmatic Advertising'. It is an automated system known for both speed and complexity. The bidding takes place in real-time and is automated. We learnt that programmatic advertising took over the Mobile ads by 70%.

Digital Ads: These include catchy content to attract different customers and convert them into required actions. An Ad Agency can be used as a median between Advertisers and Publishers. They help is Ad creation, Ad Placement, and Targeting customers.

Additionally, Air France can try to increase its Quality score which helps in higher placement of ads with reduced bidding price. The actual CPC is calculated by multiplying Qs with its bidding price. Thus, a higher QS helps in winning an auction even with low bidding price which next helps in improving ROA.

Furthermore, Air France can also try to consider investing in manual bidding, which gives them control over the keywords. This way it can change them based on the season or offers.

6) WPP model:

WPP is an Ad Agency company which offers a creating service, buying, planning, and handling ad spots. We can collect data from different publishers using a single medium like WPP optimizing the resources.

<u>Present Model</u> includes 1) Data 2) Ad Inventory

→ This data includes information from various sources such as Publishers, Ad networks/companies. One can make money by selling this data.

→ This data helps in getting insights from the consumers and helps in creating recommendations and ad strategies. An analytical report can be generated from the data present in the inventory which can be utilized for future campaigns.

<u>Suggested Model</u> includes present model + Recommended Inventory i.e. ML algorithms, Optimized Strategy Methods.

→The current model helps in implementing new measures based on past data.

→However, using the new model we get an option to look at future data such as customers that can be targeted, most traffic hours.

→This helps to overcome the challenges that we face in present Model: Ad blockers, Phishing sites, Wrong/incorrect data, Limitation on cookies.