

Cloverleaf Analytics Case

MSBA 6250, Spring 2019

Group 2

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Cloverleaf currently has stores in over 300 malls and shopping centers throughout the United States, but the firm is now turning its focus towards a completely different market. The digital marketing team at Cloverleaf has been tasked with maximizing Cloverleaf's online commerce by optimizing the firm's appearance in search engine result when a customer searches for the products Cloverleaf sells. Cloverleaf wants to specifically focus on how the firm's spend on search keywords affects the placement of ads on a Search Engine Results Page (SERP), as well as the click-through rate and conversion rate of Cloverleaf ads. Search engine algorithms and customer behavior are constantly changing, which only further complicates any analyses of keywords in search engine results. While assessing how keywords affect ad rank, click-through rate and conversion rate are valuable, they do not assess Cloverleaf management's question of what causes a customer to click on one ad rather than another.

Commented [JAQ1]: I like the sentence, and the point it makes, but do we need it? I want to need it

While revenue is the end goal for the online business model, Cloverleaf should focus on improving both clickthrough and conversion rates. Ads that receive higher clickthrough rates will direct a larger number of shoppers to the Cloverleaf website where a conversion takes place. Increasing the conversion rate of shoppers who do land on the Cloverleaf webpage will in turn increase total revenues.

Cloverleaf should first look to increase clickthrough rates on their advertisements by placing bids that would ensure ad placement at the top of the results page. Ads that are placed at the top of the search engine results page have significantly higher clickthrough rates than ads in any other position on the page (Appendix A). Maximizing the clickthrough rate of Cloverleaf advertisements will increase the total number of visits to Cloverleaf's webpage. Cloverleaf should also include the word "*Cloverleaf*" in their list of sponsored keywords. Users who use the "*Cloverleaf*" keyword have a significantly higher clickthrough rate than people who do not specifically search for Cloverleaf (Appendix A). Using the company's name in advertisements at the top of the results page will put Cloverleaf's webpage in a better position to receive clicks from both people who do and do not specifically search for the company.

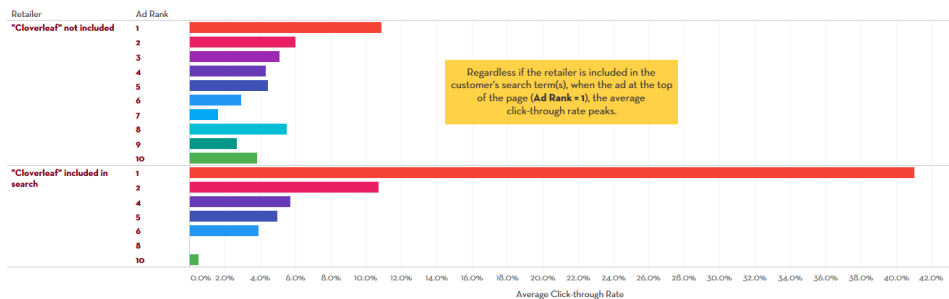
If Cloverleaf is successful in increasing the clickthrough rate of its advertisements, the next step in increasing overall revenue is to increase the conversion rate. Approximately 76% of total impressions from Cloverleaf advertisements are from people who do not specifically search for the company by name. Even though over two-thirds of total impressions are on people who do not specifically search for Cloverleaf, roughly one-third of total conversions and revenue are from also from people who do not specifically search for Cloverleaf (Appendix B). Cloverleaf should seek to make improvements on the quality of the landing page users are directed to once they click on Cloverleaf advertisements. Increases in landing page quality are shown to have significantly higher conversion rates (Appendix C). Decreasing the number of clicks necessary to make a purchase and including proximity to and inventory of nearby stores have the potential to increase the landing page quality.

Commented [JAQ2]: Causal? How do I word this better?

Placing a higher priority on the top advertisement placement will come at a higher financial cost to the firm through and increase in total bid amounts. The hope is that the increase in clickthrough rate will result in be offset by the higher conversion rate that is brought on by Cloverleaf's new landing page. Designing and implementing a new landing page will incur additional development costs. There is also the potential that a new landing page will have lower quality scores. Cloverleaf should implement various A/B tests to test the efficacy of features they intend to add. Placing an increased importance on ad placement will ensure more users see Cloverleaf ads. Once these users click on Cloverleaf advertisements, the improved website design will ideally result in an increased conversion rate and resulting revenues.

Appendix A

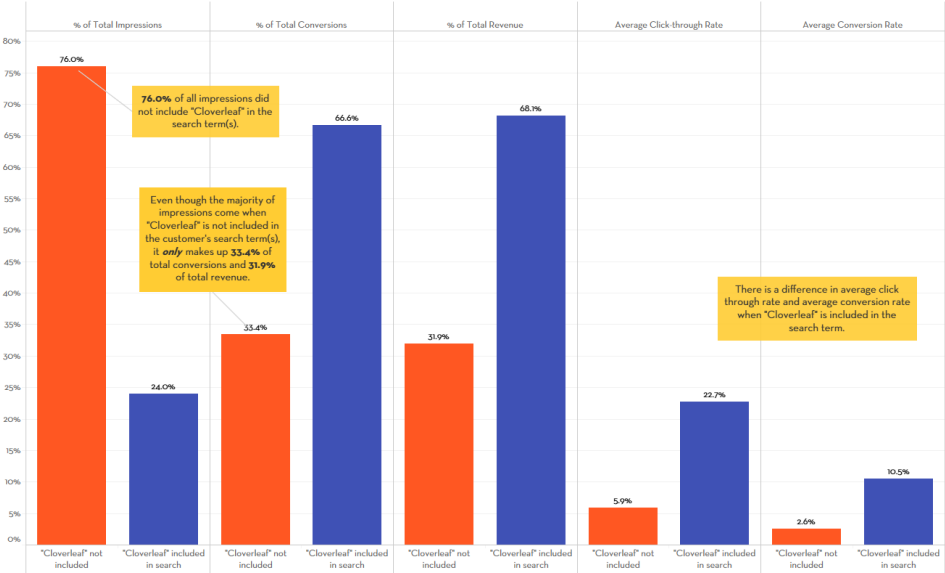
Average Click-through Rate by Ad Rank & if Retailer is Included in Search Term



As illustrated above, Cloverleaf advertisements that are at the top of SERP appear to have significantly higher clickthrough rates. A Tukey's honest significant difference test was completed on the difference between the clickthrough rate of advertisements that are at the top of the page and all others yields a difference of approximately 0.15 ($p < 2.2e-16$). We can also inspect the differences the differences in conversion rates of ads placed in the first position with all others across the two groups of users who either searched for or did not search for Cloverleaf by name. Of the users who searched for Cloverleaf by name, advertisements placed at the top of the page saw clickthrough rates that were approximately 0.39 higher ($p < 2.2e-16$). Of the users who did not search for Cloverleaf by name, advertisements placed at the top of the page saw clickthrough rates that were approximately 0.08 higher ($p < 2.2e-16$).

Appendix B

Total Impressions, Total Conversions, Total Revenue, Average Click-through Rate and Average Conversion Rate If Retailer Name Included in Search Terms



Appendix C

Among users who did not search for Cloverleaf by name, the conversion rate increases by 0.7% for each increment of landing page quality ($p = 0.0023$).