

Facebook Display Advertising Targeting Case

In this assignment, you construct a presentation that demonstrates the connection between analysis and decisions. You are analyzing the experiments to identify targets to extend the campaign.

A prior team identified that the margin per click for these campaigns ranged between 0.01 and 0.0125, but there was no meaningful pattern in which campaigns received obtained which margin. The business partner suggested to use 0.011 as the best guess. In addition, the require return for such campaigns is 10%, meaning that the value has to be 10% larger than the expenditure to consider extension.

Your ultimate task is to recommend the targets that meet these criteria. You will need to create a presentation and deliver a data product. The presentation will include your analysis, results, and the targets. The data product is the original data with two columns added: scores and whether you recommend that target for extending the campaign.

The presentation is to an audience includes the decision maker and this audience is familiar with regression, but not experts and definitely are focused on managerial decisions and insight, not statistics. That said, they are very interested in hearing your analysis and thoughts.

Deliverables

- A. Your presentation should include:
 - 1) Title slide
 - 2) Highlights slide with key conclusions and points
 - 3) 2-3 slides that present the analysis, results, and targets
 - 4) Appendix containing any details of the regression you chose to use.
- B. Recorded presentation of up to 5 minutes where the group presents from the main presentation slides. This should be given to the audience as described above.
- C. Data product that includes the original dataset with two new columns:
 - 1) **Score**: Predicted score (use $\text{Score} = \text{Value} / \text{Dollar Spend}$)
 - 2) **Extend**: Whether targeted or not ("Yes" or "No")Note the data product should
 - a. Contain all rows from original data in the same order as the original data
 - b. Contain two new columns labelled exactly "Score" and "Extend"
 - c. Have filename = "Targets_[class]_[section]_[letter].csv"
 - i. where class is either "MSBA" or "MSMA"
 - ii. where section is either "Online" or "In person"
 - iii. where letter is the letter of your team

- D. There is no code deliverable for this assignment. Any analysis details should be in the appendix slides. The main slides should be designed for the intended audience.

Data

The Facebook Data and Data Dictionary were provided by Avery Haviv for his assignment. I have reposted it on blackboard for ease of locating. Note you should NOT need to do much if any additional analysis beyond using the analysis to create scoring (predictions), adding columns, and saving the data product.

Grading

The grading emphasizes applying the analytics design principles to the communication:

Frame (4 pts):

- Did you frame the analysis appropriately to address the key task?
- Did you follow specifications for the data product?

Analysis (3 pts):

- Does your presentation of your analysis indicate you conducted it correctly?
 - Important: There is no code submission. You must demonstrate this in the presentation itself. Don't rely on many words and instead clearly reference the appendix.
- Did your target file (data product) match the appropriate formatting?
- Did your target list match the list given the data and analysis expectations?

Communication (3 pts):

- Did you apply Simplify for Focus and Prioritize on Information Value?
 - Are the insights easy to identify and understand quickly?
 - Are the targets easy to identify and understand quickly?
- Did you use concise presentation of details (words, numbers, visualization)?
- How effective is the information content?
- Is the language and statistical content appropriate?