

Use case: Efficiently testing the effect of Facebook advertising

Case:

A clothes retailer with locations in 13 cities wants to test whether advertising on Facebook increases the number of online orders they receive.

Approach without King Street Economics:

The retailer does a small Facebook ad campaign for one city lasting one month, and compares total sales for the month to total sales from the previous month. They detect no difference, and as a result, they choose not to advertise on Facebook.

Problems with this approach:

- Unless the per-dollar effect size of Facebook spend is very large, a small test could cause a real and positive effect of Facebook advertising to show up as not moving the needle on online orders. Statisticians call this the “power problem.”
- On the other hand, spending too much could be throwing money down the drain.
- The geographic market selected for the test may not be representative of the retailer’s business as a whole
- The number of online purchases can change between the pre-test and test period for reasons unrelated to the Facebook campaign
- Middle and upper management are busy making the business actually run, and it isn’t cost effective for them to take time to clean and analyze experiment data

How King Street Economics could help this firm:

- Pick the **right test group** of geographic markets to test the Facebook ad campaign
- Calculate the minimum size the test campaign should be, to actually detect an effect
- Pick an appropriate **comparison group** of geographic to serve as a baseline
- Analyze the post-experiment data to calculate the actual effect of Facebook advertising on online purchase volume
- Translate the experiment results into the effect of running Facebook advertising campaigns in all geographics
- Present results in a clear, easy to digest report with an accompanying slide deck

Want to run an experiment like this?

Email contact@kingstreeteconomics.com to schedule a free consultation.