



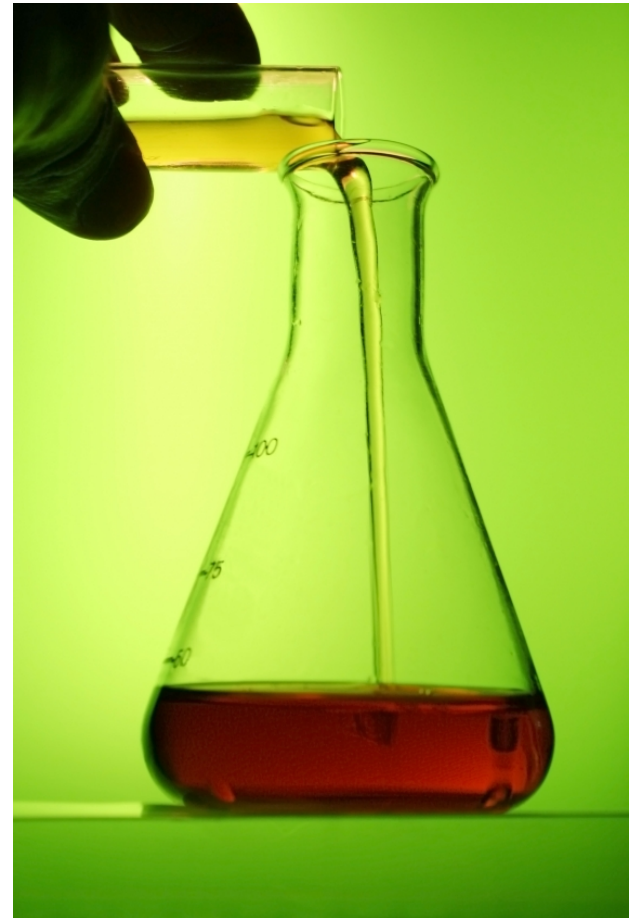
Basic Experiment Design

What Establishes Causality?

- Change in marketing mix produces change in sales
 - Increasing Advertising \$  Increased Sales
- No sales increase when there is no change in the marketing mix
 - No Increase in Advertising \$  Same Sales
- Time Sequence
 - Increased advertising \$ today leads to higher sales tomorrow
- No other external factor
 - When advertising was increased, one of the competitors left the market. So sales increased because of less competition, not because of increased advertising.

Experiments: The Holy Grail!

One or more independent variable(s) **[Advertising \$]** are manipulated to observe changes in the dependent variable **[Sales or Brand awareness]**



A Basic Experiment

How to assign customers to experiment and control group?

