Frame the problem



Frame the problem

Diagram the problem

Build the model

Generate insights

Decision

Perils of not framing the problem



Executive: Will investing in Widget X improve profits?

Analyst: Over what time period?

Executive: Within 3 years?

Analyst: No, time to market for Widget X is 4 years

Executive: Within 7 years?

Analyst: Yes, we forecast huge demand in the long-term

What is a model?



A model: <u>Simplified</u> representation of reality that helps you make business decisions.

- Should I model by month or by quarter?
- Should I sub-divide by region or by product, or both?
- Can I use past data as a proxy for the future?





- We are using the first 3 months of operating data for our model inputs, are you happy to use this as a proxy for future operating data?
- Do you want a common overbooking policy on all flights or do you want to tailor it based on demand and historic flight data?
- Do you want us to adjust flight pricing to account for the new overbooking policy?

Revised problem statement



"If we had implemented an overbooking policy, with a common booking limit across some or all of our flights, by how much would we have improved profitability, without adjusting prices, in the last 3 months?"

Batt & Powell's 4 – Step modelling process



