

Perspective on Quantitative Modelling

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Three Changes that will affect you!

- ▶ The availability and use of big data.
- ▶ How the move to the internet for retailing, survey research and behavioral research affects the environment and expectations for quantitative research.
- ▶ People today are having information collected about their habits and behavior without their being aware of it.
 - Credit cards, smartphones (Physicalytics, Nordstrom)

1. The availability and use of big data

- ▶ In the past, we often knew if someone bought before, even their address. Now we know
 - What people do before they buy (pre-purchase behavior)
 - What people do after they buy (post purchase behavior)

1. The availability and use of big data

- ▶ This opens many opportunities
 - Probabilities of actions that lead to purchase (improve prediction)
 - Influence actions that can increase the likelihood of purchase
 - Better understanding of psychological processes that precede buying

1. The availability and use of big data

▶ Models

- Understanding of the buying process
- Understanding of how marketers can influence buying
- Understand the process: create hypothetical situations and test them
 - Counterfactuals
 - Real experiments
 - Extend studies to other spheres

1. The availability and use of big data

▶ Future behavior

- Does a purchase of X change people. How does it change them?
- Are there differences in people who are satisfied versus those who are not satisfied
- Are there markers that I can use to modify/improve my product/service

1. The availability and use of big data

- ▶ In the past, if person X buys life is good. If person Y does not buy, life is bad → figure out why they don't buy and fix it.
- ▶ Now, we can do much more. Why do people buy? Warning signs, anticipation and opportunity.

2. The move to the internet

- ▶ The quality expectations for data are much higher
 - When something is easier to get, the quality expectations are higher
 - Don't necessarily use past/published articles as the basis for what is required.
 - You need to get a measure from people that are working in the area. What are they doing.

2. The move to the internet

- ▶ Support for analytical work, especially assumptions must be solid.
 - If an assumption is not strongly supported by stylized facts, then you may be expected to collect data to support your assumptions.
- ▶ Comfort with tools such as Google Analytics are now quite important if you are about to embark on quantitative research.

2. The move to the internet

- ▶ Generalizability of theory is more important now than ever.
 - If you are working on a model of the sharing economy using data from SnapGoods
 - You should expect reviewers to ask for confirmation from AirBnb, Dog Vacay, Relay Rides, Getaround, Lyft (not Uber)

3. The marketer may know stuff about you that even you don't know!

- ▶ There are not right and wrong answers in this area...
- ▶ What is the cost of upsetting people compared to the benefit of using information?
 - If you buy something and the company knows your name, there is nothing under criminal law that stops the company from using it (exceptions)
 - civil law is different (slander/libel)

3. The marketer may know stuff about you that even you don't know!

- ▶ Is the law overly restrictive or too lax
 - Legal versus ethical
 - Quantitative researchers have an opportunity to really add some value here.
 - Objective of rule
 - How do people behave when the rule is in place?
 - Many laws have perverse effects...

3. The marketer may know stuff about you that even you don't know!

- ▶ In general, the marketing community (practitioners and academics) spend too much time counting our money and not enough time communicating about the positives we create.
 - Misuse of information (social media).
 - Products or services that don't live up to expectations
 - Pure and simple deception

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- ▶ 80 to 90% of the discussion of marketing in the public sphere is negative

3. The marketer may know stuff about you that even you don't know!

- ▶ Is there some way to turn the heat down by stimulating/promoting more discussion of the value that marketing creates?
- ▶ When someone who serves you has better information about you, is the outcome for you better or worse?
 - A competent physician with better information will serve you better.
 - Secret police (Stasi) with better information will serve you worse.
- ▶ Why is the public perspective invariably the latter and not the former?