



# Perspectives on Quantitative Modeling

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# Congratulations!

You have taken up the best profession in the world.

In my somewhat admittedly biased view, you have chosen  
the right way to succeed in this profession!

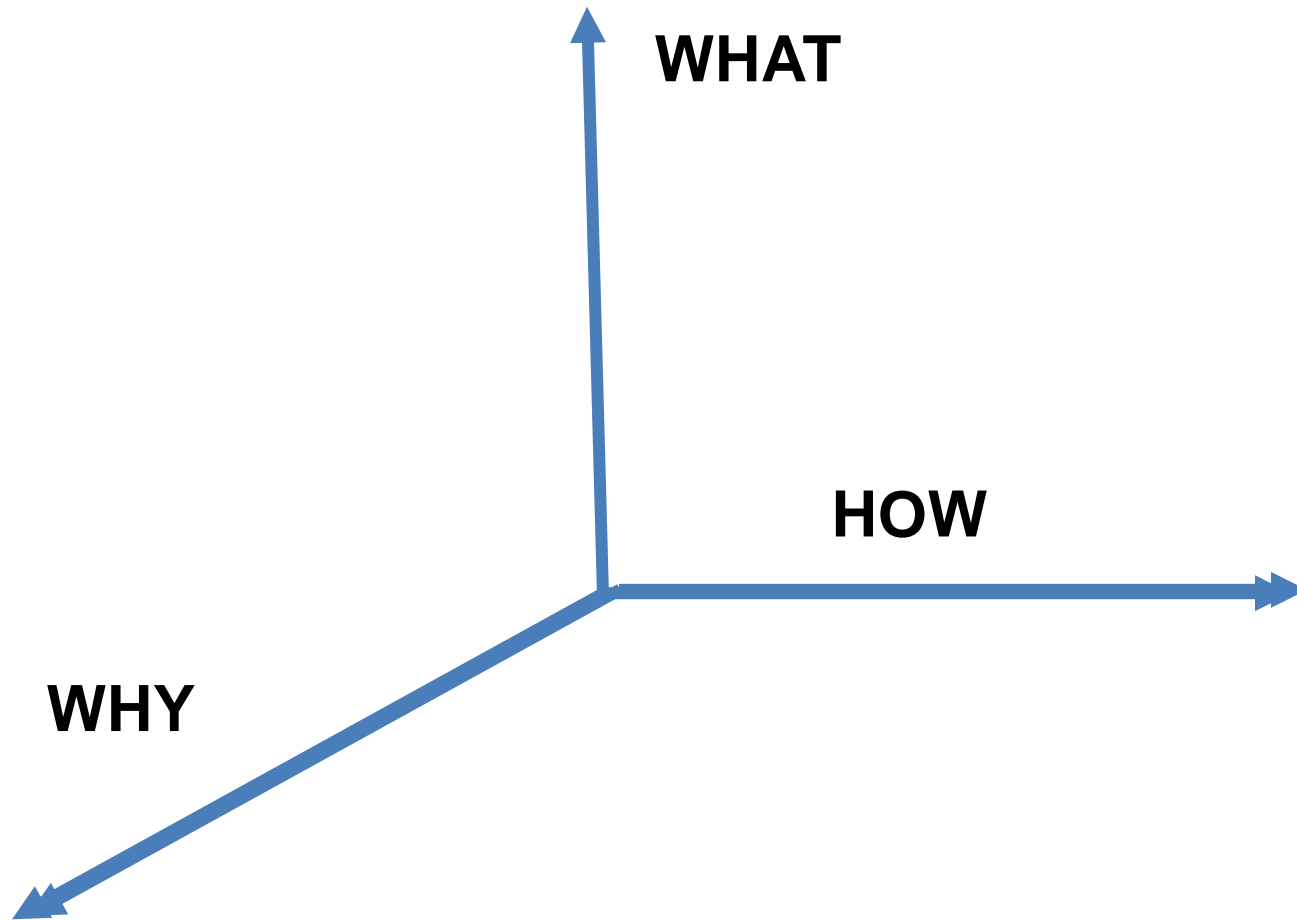
# It will work out.....

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- We all started the same way.
- You are surely smarter than I am.
- You are also better trained.
- You will get a great job.
- You will contribute more to the field of Marketing than I have.
- Have confidence in your ability.
  - Yes...YOU can.

# Quantitative Modeling: Research Typologies

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# What.....

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- What is the effect of
  - Increased advertising (or creatives) on sales? Concave, S-shaped?
  - Free samples and Detailing on sales.
- What is the impact of
  - Improved privacy on consumer purchase behavior.
  - Shipping policies on demand,
  - Trial at home on purchase behavior
  - Opening a bricks and mortar retail store on online sales
  - E-Commerce on tail-length(long vs short)
  - Having a facebook page on brand image and sales.

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# 1. Response Function Modeling

# How.....

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- How do I come up with an optimal media allocation plan now with the availability of digital media?
  - How do I figure out which media led to the sale?
- How do I figure out the right set of features in my product?
  - Should it be any different if consumers exhibit externalities?
- How do I design a website to get more stickiness?
- How do I design a better ad?
  - Should I do it, or have my consumers do it for me?
- How should I respond to competitive entry?
- How do I go about determining two-part pricing plan when all I have used so far is linear pricing?

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## 2. Decision Support Models



# Why.....

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- Why do we see cents-off coupons even in mature markets?
- Why do salespeople spend time lobbying for lower prices?
- Why do competitors share the same advertising agency?
- Why do more alternatives often lead to less choice?
- Why do we see linear compensation plans when theory suggests more complex ones are better?
- Why do we offer delayed incentives as opposed to ones that lead to immediate gratification?

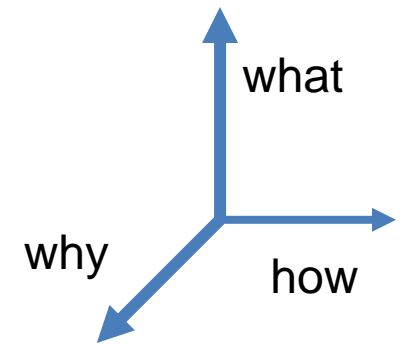
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**3. Come up with the simplest possible explanation for an otherwise strange practice!**

Some Call it Theory Construction...

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**Moving forward on each of these three dimensions adds to our understanding, and therefore improves marketing practice**



Which one to choose?

Over time you will do all three!

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# The Path Forward.....

# Focus on Important Problems

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- Read popular business press before you read JMR or MKGSCI
  - What problems/challenges are businesses facing?
- Look at the world around you.
  - What problems do you face when you make choices?
  - Ask...why companies do A and not B
- Read
  - George Dantzig's "The Diet Problem" Interfaces 1990.
  - Gary Becker's "An Economic Analysis of Fertility"
  - Ronald Coase's "Nobel Acceptance Speech 1991
- **Distinguish between:**
  - A paper that will get published
  - One that will also get you a great job!

# Build a **STRONG** Skill Set (Future Proof Yourself)

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- Mathematics
- Economics
- Statistics
- OR (Optimization/Complex Computational Methods)
- Computer Science and Artificial Intelligence
  - Machine learning
  - Data Mining
- **Psychology and Sociology**

# Add behavioral richness to your models...

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## The Seven Virtues

- Kindness (fairness)
- Charity
- Diligence (persistence/loyalty)
- Patience (vs lack of self-control)
- Humility
- Temperance
- Chastity

## The Seven Sins

- Greed
- Envy (jealousy)
- Pride (negative externality)
- Wrath
- Lust
- Gluttony
- Sloth

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**A bad simple model...leads to a complex often intractable answer.**

**Once you have it right (behaviorally), the model is more complex, but the result is simple and elegant.**



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# Congratulations and Best Wishes.

It will work out...

Yes...YOU Can