Can Big Data Protect a Firm from Competition?

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Research Question

Can Big Data Protect a Firm from Competition?
What is big data?

- High Volume
- High Velocity
- High Variety
Motivation: Our experience in the MBA Classroom
Not our MBAs fault
Not our MBAs fault
Let us clear up one thing up front
We are not saying that big data is not a managerial challenge
Indeed we argue that the main constraint on managerial progress is labor supply
We simply say that by itself big data is probably not a source of sustainable competitive advantage
But what do you mean by sustainable source of competitive advantage?
This is an obsession of the traditional strategy literature

- Surprisingly little overlap with antitrust
We simply take main criteria from these models and apply them to big data
So what are these criteria?

- Inimitable
- Rare
- Valuable (Exploitable)
- Non-substitutable
Is Big Data Inimitable?
Nature of digital footprint allows multiple sources of tracking
Yes, Your Credit Card Company Is Selling Your Purchase Data To Online Advertisers
Is Big Data Rare?
No - because of fundamental cost shift
Back to digital footprint
Is Big Data Valuable?
First Constraint is talent
Addressing the Big Data and Data Science Skills Gap

Room 5A, 22/10/2015 (09:50-10:35)

Objectives

Big Data has the potential to directly contribute €206 billion to the EU economy by 2020. One of the main barriers to achieving this potential is the forecast skills gap associated with Big Data. For example, over the past 5 years the demand for Big Data staff in the UK alone had risen tenfold and currently 77% of Big Data roles are hard to fill. It is also estimated that there will be a 160% increase in demand for Big Data specialists between 2013-2020 to 346,000 new jobs.
Gains are small

- Volume: Misleads
- Variety: But Silos
- Velocity: Operational advantage but very short-term?
Lack of Causal Inference
Is Big Data Non-Substitutable?
Didn’t help communications companies
Didn’t help gaming companies
Didn’t help hotel chains
Even for the very personal: Didn’t help dating companies
Even for network effects: Didn’t help MySpace
Punchline
Big Data by itself is not a source of sustainable competitive advantage

• Inimitable
• Rare
• Valuable (Exploitable)
• Non-substitutable
Beyond the Hype: The Hard Work Behind Analytics Success

Why competitive advantage from analytics is declining and what to do about it
Echoed by Firms

**FIGURE 1: COMPETITIVE ADVANTAGE FROM ANALYTICS IS DECLINING** The percentage of organizations gaining competitive advantage from analytics declined significantly in 2015.

Percent believing that business analytics creates a competitive advantage for their organization
The rare resources are useful analytics, customer insight and talent