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Some observations on anti-trust from a behavioral strategy perspective

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Who am I?

- Trained by Otto Davis and Herbert Simon.
- Interested in strategic decisions and risk taking
- Advocate of behavioral approaches to strategy
- Not expert on antitrust or social welfare issues

So: Will offer some observations that might be of interest recognizing that you may have already thought of much of this.

Core Assumptions

- An interaction between market and firm behavior (including internal management) strongly influences performance.
- Firms differ in their choices – no firm makes strictly optimal choices so market structure does not solve the firm choice problem.
- Consequently, can explain much of performance by firm choices rather than industry.
- Firm performance depends on organizational outcomes even management doesn't fully understand.

Porter of course

- Stood industrial organization economics on its head.
- Instead of how to create competitive markets, how to avoid them.
- “Market power” a continuum.
- However, at the firm level, strategy research has not found very strong industry effects.
- Firm differences appear to matter more than industry
- While Porter is about industry, strategy isn’t.

Industry depends (partially) on strategy

- Firm strategy choices partially redefine industries
- Ten years ago, many thought banking and insurance would become one industry – resulted in Citicorp/Travelers merger among others.
- Amazon may subsume the book retailing industry into more general retailing

Firm actions regarding industry depend on managerial beliefs

- Decisions depend on what managers believe.
- Substantial research demonstrates that managerial beliefs depend on factors unrelated to the facts – manager age, background, etc.
- Managers perceive they compete with sub-groups of the industry
- How firms exploit industry structure will depend on beliefs about such structures

Antitrust issues?

- How do we define industry?
- Managerial perceptions of whom they compete with differ from normal industry definitions.
- Does managerial competitive behavior vary with managerial beliefs in ways not predicted by objective measures?

Marginal vs. average cost

- Typical assumption: firms operate where marginal cost if above average cost.
- Not correct in the short run for most companies.
- Has been recognized for software and similar areas where variable cost is almost zero, but holds for almost all firms.
- If the firm has interest expenses or administrative expenses that do not vary with output, then it is likely that average is above marginal.

Medtronic - 2012

Net Sales	**16,184**
Cost of Goods Sold excl. depreciation	**(3,056)**
Depreciation (removed from Cost of Goods, but may be spread across items below)	**(833)**
Selling and Administrative Expenses	**(5,624)**
R&D	**(1,490)**
Interest Expense (net)	**(149)**
Amortization of intangible assets	**(335)**
Restructuring, litigation, acquisition, other	**…**
Earnings from continuing operations before taxes	**4,415**

So?

- This can lead to ruinous competition.
  - Airlines after deregulation. Marginal almost zero, so lowering prices looks like a good deal if you have empty seats. But, price fell below average cost.
  - If this is a general problem, then we need to understand how pricing practices do not lead to ruinous competition more generally.

Why not ruinous competition?

- Sometimes managers really understand the problem – “in an oligopoly firms don’t generally gain from price competition”.
- More often, they may have evolved rules of thumb that work – mark-up pricing for example.
- But, positive work on pricing is limited.

Why isn't this just a multi-player prisoner's dilemma?

- Complexity limits game theory applications – chess.
- Competition often involves multiple dimensions, each player with different resources and (potentially) objectives.
- As behavioral factors "solve" prisoner's dilemma, it probably explains more complex interactions.

Antitrust research issue?

- Antitrust rests heavily on assumptions about firm pricing – change in understanding of pricing may have serious impacts on antitrust issues.
- Firms may achieve coordinated pricing more commonly than structure indicates.
- E.g., price coordination through industry recipes and rules of thumb (e.g., historical charge for realtors).

Differential Performance from well known tools (taking industry effect for granted)

- RBV – says performance differences depend on owning unique, inimitable resources that stem initially from a random occurrence
- Their arguments include that managers must not understand resources otherwise everyone would use them eliminating their ability to explain variation

Variation in use of standard techniques explains performance

- Bloom & van Reenen (2006), Bloom et al. (2007), Bloom et al. (2012) – standard management practices like rewarding performance, inventory management explain performance variation
- Combs, et al. (2006) use of common HR practices
- Zajac and others, boards that advise rather than just monitor increase firm performance
- Many other studies in quality, supply chain management, HR, etc.)

Antitrust issue?

- Quality of management unlikely to be randomly distributed across industries.
- May need to control for quality of firm management in identifying the influence of competition.
- Identification issues if “quality” unspecified, but Bloom etc. studies offer a way to proxy for quality.

Learning

- Optimal behavior implicitly requires firms learn well.
- Often, managers have more variables than observations.
- Often, firms do not retain data in ways that would allow learning.
- Firms often do not do analyses we would see as obvious (Tobin).
- Correct and superstitious learning both occur.

Antitrust issue?

- Antitrust action implicitly assumes firms exploit a structure in a given way.
- Firms may learn how to exploit a given set of external conditions but don’t do so immediately.
- Both firm strategy and industry adapt with lags, some based on actual costs of change and others based on other sources of inertia.
- If the environment changes quickly relative to organism’s adaptation rate, may never reach equilibrium even in simple world.
- Dynamics of adaptation?

Market Dynamics

- In lending, have to be a stupid as the stupidest in the market
- Dynamics lead to excessively generous risk assessments
- Slighting the intangible for the tangible
- Results in long run problems
- Subprime, but also big banks, and other businesses

Summary of issues:

1. "Industry" depends on strategy
2. Management beliefs about industry structure may differ from economic definition & influence behavior
3. Marginal vs. Average cost – mechanisms used from learn to avoid ruinous competition may lead to collusion
4. Quality of management – not necessarily randomly distributed across industries – controls?
5. Learning
6. Market adaption and unusual outcomes