What Should Strategic Management's Dependent Variable Be?

Connie Helfat
(panel leader)

Ron Adner

Bruce Kogut

Dan Levinthal

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Strategy Summit 2024
Deer Valley, Utah

Session Agenda

- Introductory remarks

- Short presentations by each panelist

  - Connie Helfat, Dan Levinthal, Ron Adner, Bruce Kogut

- Discussion among the panelists

- Questions to consider

- Open discussion/Q&A

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Starting Point

- **Performance of the firm and factors that affect firm performance**

  - Traditional concern of strategic management

    - Often performance relative to competitors—competitive advantage

- A conceptual discussion

  - Applicable to all contexts

    - With implications for empirical research and leveraging treasure troves of new data

- Broaden how we typically think about firm performance

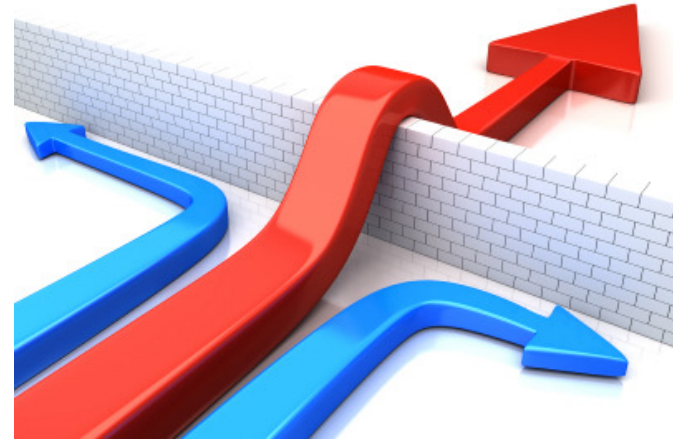- See also our joint piece on the Summit website

Connie Helfat

Tuck School of Business at Dartmouth

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Taking the Dynamics of Performance Seriously

- What do I mean by "dynamics"?

- Why focus on this?

- What sorts of empirical analyses might be helpful?

Dynamics of Firm Performance

- ***Over longer time spans***

  - Studies often examine contemporaneous performance (even using panel data)

    - Or forecasts of future performance at a point in time (Lieberman et al., 2018)

  - Many of the remaining studies examine one-shot changes due to strategic moves such as M&A

- Time path of firm performance over time—temporal patterns within and across firms—and the determinants

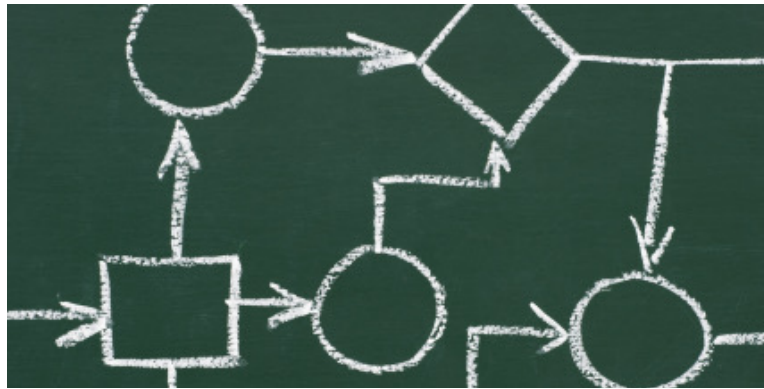 - Ups and downs, for how long, under which conditions

Why Focus on Longer Time Spans?

- Studying (primarily) contemporaneous firm performance and advantage *severely* limits our understanding of what enables firms to survive and prosper

Why Focus on Longer Time Spans?

- Which factors over the firm's lifecycle *systematically* affect the ability to survive and prosper beyond the short-run?
  - How important is imprinting? Weak vs. strong path dependence?

- Under which conditions?

- Requires a longitudinal analysis that captures heterogeneity among firms

Empirical Analyses to Consider

- ***Basic question: what is the pattern of performance over longer time spans within and across firms, and how does this vary by industry/sector/ecosystem?***

- Need a systematic analysis to get a baseline
  - Incorporate technological, regulatory, and other shocks
    - Similar to what researchers did for industry evolution (e.g., Agarwal, Klepper)
  - Stylized facts are useful (Helfat, 2007)
    - Could start by figuring out what we can learn from extant studies
      - Including by people in this room

Empirical Analyses to Consider

- Pay more attention to **firm growth** (Coad, 2021; Helfat, 2021; Sivadasan et al., 2024)
  - Without growth, can increase profits only by lowering costs or raising prices
    - A particularly informative metric in rapidly changing environments (e.g., due to AI)

- Scale matters
  - Firms that grow put pressure on other firms – can lead to competitive advantage
    - Newer research on scaling (e.g., Giustiziero, Kretschmer, Somaya, & Wu, 2023)
    - But also earlier work (e.g., Cohen & Klepper and related studies)

Empirical Measure to Consider

- An overlooked measure:

  growth persistence (Helfat et al., 2007)

  - For research on profit persistence, see e.g., work by McGahan, Waring
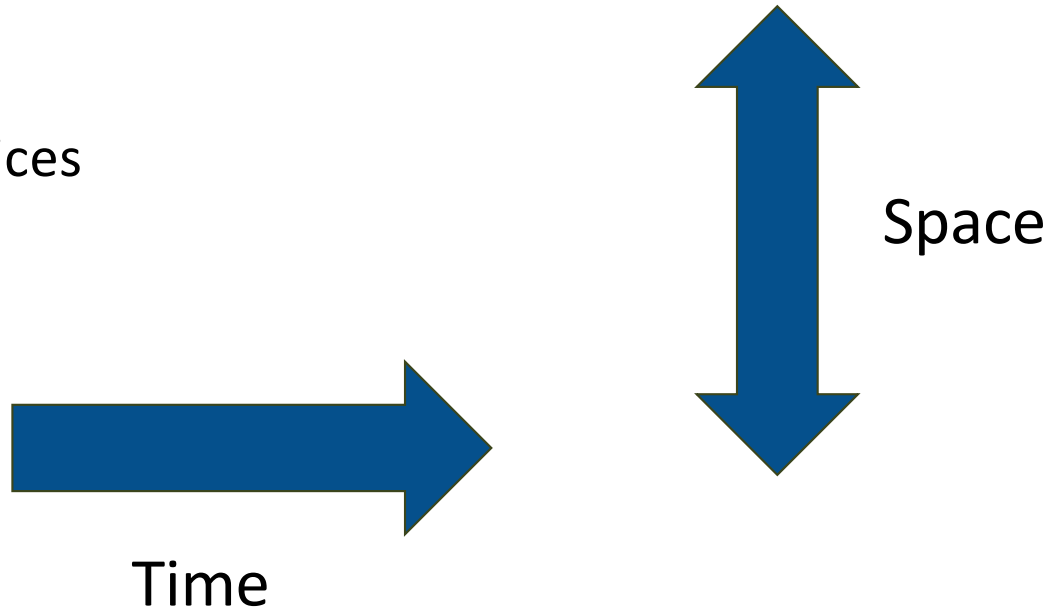
- And sources of growth persistence

Dan Levinthal

The Wharton School

Strategy Problem of Performance Evaluation

- Strategic choices

Space

Time

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- Our real-time evaluation of performance is based on contemporaneous observables and our theories of strategic performance

How do we know now how strategic their choices are?

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- Evaluating implications of current actions

  - Imputation problem of dynamic programming
    - Folding back in a logic tree of possible paths

  - Folding back from a mental model that implies value to intermediate stages and observables (Samuels, 1957; Holland, 1975; Denrell, Fang, and Levinthal, 2004)

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Internal ecology:

- Projects
- Routines
- Business units
- Individuals

Levinthal (2017 and 2021)

Firm: Artificial selection environment:
- Temporal bridge

Explicitly myopic

Product markets

Selection Environment

Financial markets

Forward-looking but conditional on observable current outcomes

Unit of Selection

Selection Criteria

Timing
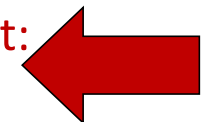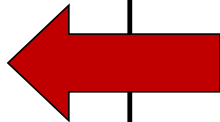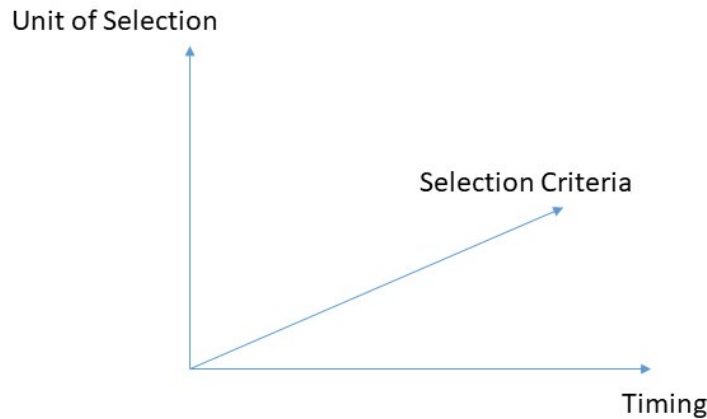
Valuation versus Performance

- Valuation is an important exercise
  - Financial analyst, M&A activity, money ball

- Performance
  - Given one's starting place, how far did you progress?

- Aspirations
  - Mechanism to calibrate expectations when what are reasonable performance expectations are unclear

What is that homily supposed to mean?

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Ron Adner

Tuck School of Business at Dartmouth

Ron Adner

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Does Strategy Matter?

Ron Adner

Tuck School of Business at Dartmouth

How Does Strategy Matter?

Ron Adner

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How Much Does Strategy Matter?

Does Strategy Matter?

- Firm Performance vs Strategy Performance

- Operations - production efficiency

- Accounting - tax efficiency

- Finance - capital efficiency

- Marketing… campaign; brand

- Strategy… hmmm

- Performance = f(x,y,z)…. x+y+z + xyz

- Price – WTP… Marketing

- Cost – SOC… Operations

  OB/HR

Getting at strategy:
Quality → performance of role vs performance in market

- How resolve good market outcome despite bad strategy; bad market outcome despite good strategy.

- Beyond Content vs Process debates

- Variable: Conceptualization of strategy as reflected in an organization's metrics
  - Dimensions – competitive; financial; quality; etc. (impact)
  - Measures – user vs revenue share; income vs income margin; reviews vs ratings
  - Time horizons, contingencies, causal logics…

- Variance in conceptualization approaches
  - Dependent variable – what predicts richer conceptualization
  - Independent variable – impact of conceptualization

- Cross-stakeholder consistency across the ecosystem – coherence, confusion, and conflict

  (Matters more when value creation is multilateral and structure is up for debate)

Bruce Kogut

Columbia Business School

Jay's and Todd's
Utah Strategy Conference

Connie's Panel : What's the right DV for Strategy
August 6, 2024

Commenting on Fischer Black's early death, Steven Figlewski noted that:

   '…What he (Fischer Black) thought was important was to build the most truthful model you could, even if you couldn't solve it analytically or accurately.'

DV and Social Value and Research Ethics

1. Estimating independent variables can be useful to creating measures:
   Examples: Backing out implicit volatility from option pricing, measuring cultural distance effects, building tacit measures, prosetc..

2. Strategy is oriented towards measuring effects on efficiency, quality differentiation.
   Research designs, such as experiments, can provide clean causal measures

3. Research paradigms in strategy and challenges of social value measurement

   1.) From Richard Caves and Michael Porter to Michael Porter and competitive strategy

   Digressions: 6th force and Adam B.

   2.) Value-based Strategies and Social Dilemmas

4. Is the DV the problem so much as "bad" research

   1.) Problem of ideology
   2.) Problem of career concerns

Why Bad (Strategy?) Science?

1. Ideology of researchers (social science primarily?)

2. Career Concerns of Scientists to get ahead….

Is there an Ideology problem?

yes.

Political Language in Economics
Zubin Jelveh, Bruce Kogut, Suresh Naidu
Published in print Economic Journal, 2024.

Politics   Sports   Science   Podcasts   Video

DEC. 8, 2014, AT 7:53 AM

Economists Aren't As Nonpartisan As We Think
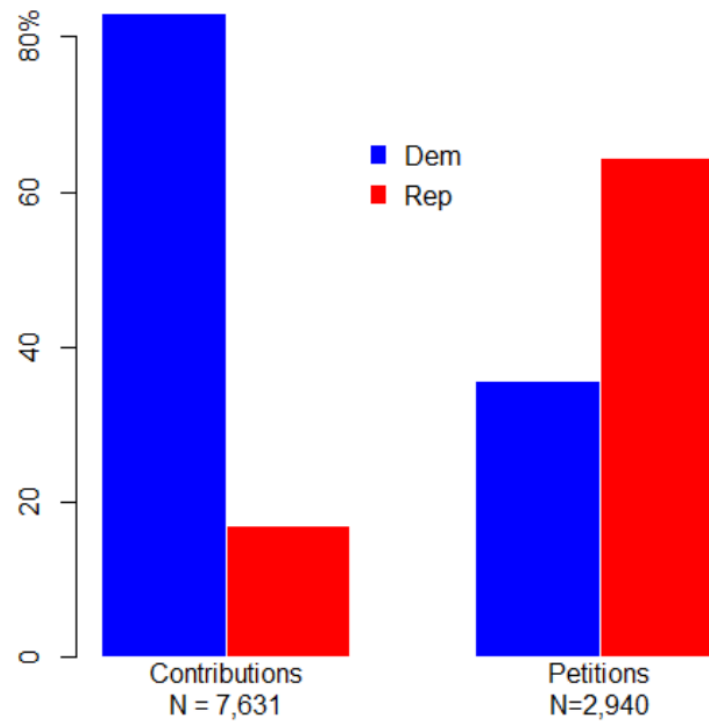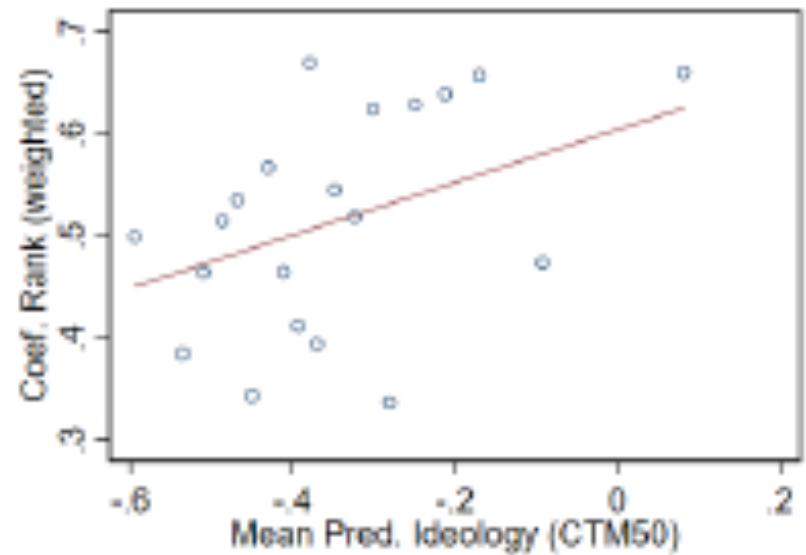
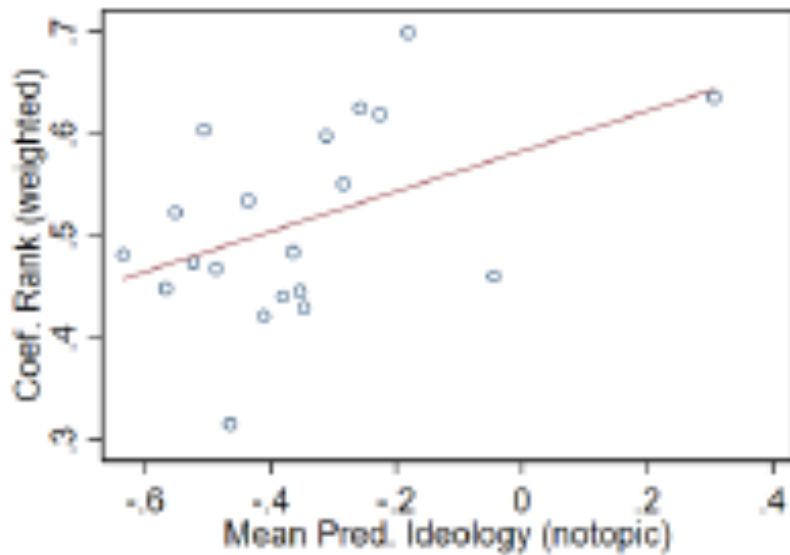By Zubin Jelveh, Bruce Kogut and Suresh Naidu

ILLUSTRATION BY DANIEL BLACKBALL ALEXANDER

Economist Political Behavior

**Proportion of Contributions/Petitions to Each Side
(Authors Only)**

Plot of Coefficient ranks of economic policy estimation against the predicted author ideology

What can be done?

1. Probably nothing –Schumpeter, passions propel the science
2. Digital labels indicating ideological color
3. Creating political SE around estimates....

into policy prescriptions, as with the optimal taxation literature. Building on Saez (2001), Saez and Diamond (2011) suggest top tax rates of $\tau^* = \frac{1}{1+1.5\times\epsilon}$, where ϵ is the taxable income elasticity of top income earners. The mean of the AEI taxable income elasticity is .96, suggesting a top tax rate of 41%. However, the mean (JEL1) ideology among people who estimate taxable income elasticities is -0.16, slightly more left than average. Increasing *LDA50* ideology from the lowest (-0.35) to the highest (.03) would increase the elasticity by 0.95, and would imply an optimal tax going from 31% to 57%. The optimal tax at 0 ideology is 33%, but if the most conservative economist (with ideology of +1) estimated a taxable income elasticity, extrapolating our results implies they would find an elasticity of 4, implying an optimal top tax rate of 14%. If ideology is associated with sorting into fields and

A career concerns problem...

Yes.

SECTION 3. ON THE FRAUDS OF OBSERVERS.

"I feel that I shall deserve the thanks of all who really value truth, by stating some of the methods of deceiving practised by unworthy claimants for its honours, whilst the mere circumstance of their arts being known may deter future offenders. [...] These may be classed under the heads of hoaxing, forging, trimming, and cooking."

The Trimmer "[clips] off little bits here and there...His object is to gain a reputation for extreme accuracy"

"extraordinary nature [of Sabine's observations] ... remarkable agreement with each other ... unexpected by those most conversant with the respective processes."
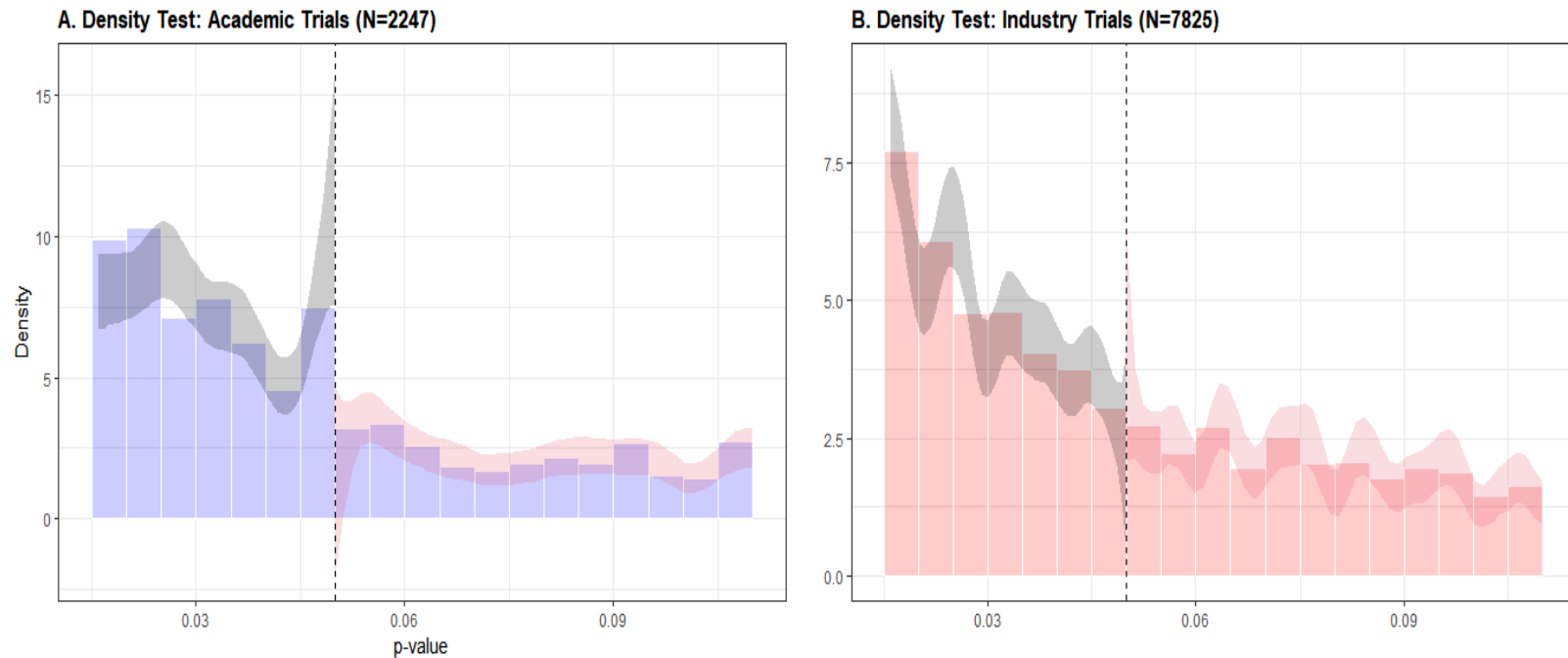

Charles Babbage
British mathematician and philosopher

Edward Sabine
Artic Voyager and member of the Royal Academy

Comparing academia and industry

A. Density Test: Academic Trials (N=2247)

B. Density Test: Industry Trials (N=7825)

Result #1: There is p-hacking in clinical trials, and this p-hacking is in those trials led by academia and not industry

A career concerns problem…

Yes.

But who should fix the problem… medical journals….

Jorge Guzman, Zubin Jelveh, Bruce Kogut, 2024, The Unfolding SPIRIT of Science: Evidence from P-Hacking in Academic Clinical Trials, NBER Summer Workshop, video.

Jelveh, Z., Kogut, B. and Naidu, S., 2024. Political language in economics. *The Economic Journal*

FYI:

Dell'Acqua, F., Kogut, B. and Perkowski, P., 2023. Super mario meets AI: Experimental effects of automation and skills on team performance and coordination. *Review of Economics and Statistics*, pp.1-47.

Questions to Consider

- How can the field of strategic management better understand firm performance over longer time spans?

- How would we, in August 2024, judge which firms are performing well in the AI space?

- How can we parse the difference between quality of outcomes and quality of strategy while giving proper credit to other organizational roles?

- Should the DV for strategy research be encouraged to bloom like a thousand flowers or alternatively closely anchored to a performance measure of the firm and its strategy?