Syllabus: MGMT 900 Economic Foundations of Management

Fall 2009

Professor Daniel Levinthal
3207 Steinberg-Dietrich Hall

Office Hours: By Appointment
levinthal@wharton.upenn.edu

Overview

This course examines some of the central questions in management with economic approaches as a starting point, but with an eye to links to behavioral perspectives on these same questions. It is not a substitute for a traditional microeconomics course. Economics concerns itself with goal directed behavior of individuals interacting in a competitive context. We adopt that general orientation but recognize that goal directed action need not take the form of maximizing behavior and that competitive processes do not typically equilibrate instantaneously. The substantive focus is on the firm as a productive entity. Among the sorts of questions we explore are the following: What underlies a firm's capabilities? How does individual knowledge aggregate to form collective capabilities? What do these perspectives on firms say about the scope of a firm's activities, both horizontally (diversification) and vertically (buy-supply relationships)? We also explore what our understanding of firms says about market dynamics and industry evolution, particularly in the context of technological change. A central property of firms, as with any organization, is the interdependent nature of activity within them. Thus, understanding firms as "systems" is quite important. Among the issues we explore in this regard are the following. Organizational "systems" have internal structure, in particular elements of hierarchy and modularity. Even putting aside the question of individual goals and objectives and how they may aggregate, the question of organizational goal is non-trivial. To say that a firm's objective is to maximize profits is not terribly operational. How does such an overarching objective get decomposed to link to the actual operating activities of individual subunits, including individuals themselves. Recently, there has been some interesting work that links the valuation process of financial markets to firm behavior. Financial markets are not only a reflection of firm value, but may guide firms' initiatives in systematic ways.

Assignments

For each class session, each student is to prepare a brief (roughly three pages) Puzzle & Gaps (P&G) note. This note conveys some provocative reflections on the part of the student on the readings. These reflections may take many forms. They make be organized around a student's puzzlement at the argument that the author(s) are making. They may reflect on contrasts in the arguments of the various authors. It might identify gaps in the existing literature and, in turn, research opportunities. Alternatively, the note could focus on application and examine ways in which the conceptual material may provide insight into some important business phenomena; or, alternatively, how an important business phenomena points to gaps and weaknesses in the theoretical ideas. These notes should not merely, or primarily, restate the arguments of the various authors. In writing these notes, you should assume that your audience (me and your fellow students) have read the articles associated with that class with some care and would not be interested in regurgitation of these ideas but would be stimulated by a fresh and provocative take on them.

While the baseline requirement is that students submit one of these notes for every class session, you are entitled to two get out of Puzzlement & Gap notes “cards”. That is, you can selection two class sessions not to submit a note, possibly based on other demands on your time at that time, possibly based on fear or aversion to that particular material (however, fear and aversion may make a promising basis for a P&G note with emphasis on the “P”). One can submit more than 10 notes (12 class session minus two) and the 10 highest notes will count towards your course grade.

These are due by **9am the day of class**. Place an electronic copy on the course web café. In addition, I would appreciate it if you placed a hard copy of the note in my mail box in Suite 2000 of the Management Department. If your physical distance from the Management Department prevents that, please provide a hard copy to me at the start of class. **No reaction papers will be accepted subsequent to the associated class session.**

A prototypical class session will have a more instructor driven first-half in which the material itself, the background context, and on-going related research initiatives and controversies will be discussed. The second-half of class sessions will draw importantly on these P&G notes and our collective reaction to them. These notes are critical to facilitating your engagement with the material and will play an important role in guiding our class discussion.

In addition to the P&G notes, you are asked to write a final essay (7 to 10 pages). This essay can take a variety of forms. One approach is to take a particular issue/theory/theme developed in the course and apply it to an empirical context. This context may be a systematic empirical regularity or a particular case. The idea is to explore how the theory illuminates the empirical phenomena, and perhaps how the phenomena illuminate weaknesses and gaps in the theory. Alternatively, one could propose a research design for the empirical test of the theory, if this is a theoretical argument not previously subject to such testing. Finally, one could propose a theoretical contribution that synthesizes, extends, or challenges arguments put forth in the course. This final essay is due by Tuesday December 22nd. The course grade will be based in equal measure on your P&G papers, class discussion, and this final essay.

Materials

Most of the readings are on the course web café site, however many of the book chapters are available on Study.Net. The price for access to this material is $65.

1. **Theories of Choice** (9/11)

D. Kreps (1988). *Notes on the Theory of Choice*. Boulder, CO: Westview publishing. Pp 43-46.

H. Simon (1955). "A behavioral model of rational choice". *Quarterly Journal of Economics*, 69: 99-118.

A, Tversky and D. Kahneman (1986). "Rational choice and the framing of decisions" in R. Hogarth and M. Reder (eds.) *Rational Choice: The Contrast between Economics and Psychology*. University of Chicago Press: Chicago, IL.

D. Gode and S. Sunder (1993). "Allocative efficiency of markets with Zero-Intelligence Traders: Market as a Partial Substitute for Individual Rationality". *Journal of Political Economy*, 101 (1): 119-137.

2. **Views of Production** (9/18)

R. Cyert and J. March (1963). Chapter 2, "Antecedents of the behavioral theory of the firm." *A Behavioral Theory of the Firm*. Prentice-Hall, Englewood New Jersey

R. Nelson and S. Winter (1982). Chapter 5, "Routines". *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.

E. Penrose (1959). Chapter II "The firm in theory" and Chapter IV "Expansion without merger: The receding managerial limit" in *The Theory of the Growth of the Firm*. White Plains, NY: M. E. Sharpe.

P. Rubin. (1973). "The expansion of firms". *Journal of Political Economy*, 81: 939-949.

3. **Resources and Rents** (9/25)

J. Barney (1991). "Firm resources and sustained competitive advantage". *Journal of Management*, 17: 99-120.

I. Diericks and K. Cool (1989). "Asset stock accumulation and sustainability of competitive advantage". *Management Science*, 35: 1504-1511.

S. Winter (1995). "Four r's of profitability: Rents, resources, routines and replication" in C. Montgomery (ed.) *Resource-Based and Evolutionary Theories of the Firm*. Dordrecht, Netherlands: Kluwer Publishers.

R. Priem and J. Butler (2001). "Is the resource-based 'view' a useful perspective for strategic management research?". *Academy of Management Journal,* 26: 22-40.

MacDonald, G. and M. Ryall (2004). "How do value creation and competition dynamics determine whether a firm appropriates value?" *Management Science,* 50: 1319-1333.

4. **Aggregation of Knowledge** (10/2)

F. A. Hayek (1945). "The use of knowledge in society". *American Economic Review,* 35: 519-530.

W. Cohen and D. Levinthal (1990). "Absorptive capacity: A new perspective on learning and innovation". *Administrative Science Quarterly,* 35: 128-152.

B. Kogut and U. Zander (1992). "Knowledge of the firm, combinative capabilities, and the replication of technology". *Organization Science,* 3: 383-397.

S. Brusoni, A. Prencipe, and K. Pavitt (2001). "Knowledge specialization, organizational coupling, and the boundaries of the firm: Why do firms know more than they make?". *Administrative Science Quarterly,* 46: 597-621.

R. Henderson and K. Clark (1990). "Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms." *Administrative Science Quarterly,* 35: 9-30.

5. **Firm as a System of Complements** (10/9)

H. Simon (1969). "The architecture of complexity" in *The Sciences of the Artificial*. Boston, MA: MIT Press.

M. Porter and N. Siggelkow (2008). "Contextuality within activity systems and sustainability of competitive advantage". *Academy of Management Perspectives,* May: 34-56.

D. Levinthal (1997). "Adaptation on rugged landscapes". *Management Science,* 43: 934-950.

P. Milgrom and J. Roberts. (1995). "Complementarities and fit: Strategy, structure, and organization change in manufacturing". *Journal of Accounting and Economics*, 19: 179-208.

N. Siggelkow (2002). "Evolution towards fit'. *Administrative Science Quarterly,* 47: 125-19.

6. **Economics of Diversified Firm** (10/16)

C. Montgomery (1994). "Corporate diversification". *Journal of Economic Perspectives*, 8 (3): 163-78.

E. Penrose (1959). Chapter V "Inherited resources and the direction of expansion" and Chapter VII "The economics of diversification" in *The Theory of the Growth of the Firm.* White Plains, NY: M. E. Sharpe.

D. Teece, R. Rumelt, G. Dosi, and S. Winter (1994). "Understanding corporate coherence". *Journal of Economic Behavior and Organization*, 23: 1-30.

C. Montgomery and B. Wernerfelt (1988). "Diversification, Ricardian rents and Tobin's q". *Rand Journal of Economics,* 19: 623-632.

P. Berger and E. Ofek (1995). "Diversification's effect on firm value". *Journal of Financial Economics,* 37(1): 39-65.

7. **Questions of Markets and Hierarchies** (10/23)

O. Williamson (1991). "Comparative economic organization: The analysis of discrete structural alternatives". *Administrative Science Quarterly,* 36: 269-296.

R. Langlois (1992). "Transaction cost economics in real time." *Industrial and Corporate Change*, 1: 99-127.

M. Jacobides and S. Winter (2005). "Capabilities, transaction costs and evolution: Explaining the institutional structure of production". *Strategic Management Journal,* 26: 395-413.

O. Hart (1989). "An economist's perspective on the theory of the firm". *Columbia Law Review,* 89: 1757-74.

R. Gibbons (2005). "Four formal(izable) theories of the firm?". *Journal of Economic Behavior and Organization,* 58: 200-245.

8. **Industry Dynamics** (10/30)

M. Porter (1981)"The contributions of Industrial Organization to Strategic Management". *Academy of Management Review,* 6(4): 609-620.

S. Klepper (1997). "Industry life cycles". *Industrial and Corporate Chang,* 6: 145-181.

J. Sutton (1991). Chapter 1 "An introductory overview" *Sunk Costs and Market Structure*. Cambridge, MA: MIT Press.

S. Winter (1984). "Schumpeterian competition in alternate technological regimes". *Journal of Economic Behavior and Organization,* 5: 287-320.

J. Sutton (2001). Chapter 1 "Introduction" *Technology and Market Structure*. Cambridge, MA: MIT Press.

9. **Technological Change** (11/13)

W. Abernathy and K. Clark (1985). "Innovation: Mapping the winds of creative destruction". *Research Policy,* 14: 3-23.

D. Teece (1986). "Profiting from technological innovation: Implications for integration, collaboration, licensing, and public policy". *Research Policy,* 15: 285-306.

P. Aghion et al (2005). "Competition and innovation: An inverted U-relationship". *Quarterly Journal of Economics*, 120: 701

C. Christensen and R. Rosenbloom (1995). "Explaining the attacker's advantage: Technological paradigms, organizational dynamics, and the value network". *Research Policy,* 24: 233-257.

R. Adner and P. Zemsky (2005). "Disruptive technology and the emergence of competition". *Rand Journal of Economics,* 36: 229-254.

10. **Problem of Goals** (11/20)

S. Winter (1987). "Knowledge and competence as strategic assets" Pp 159-169 in D. Teece (ed.), *The Competitive Challenge*. Boston, MA: Ballinger.

G. Baker, R. Gibbons, and K. Murphy (1994). "Subjective performance measures in optimal incentive contracts". *Quarterly Journal of Economics, 109: 1125-1156.*

R. Cyert and J. March (1963). Chapter 3, "Organizational goals". *A Behavioral Theory of the Firm*. Prentice-Hall, Englewood New Jersey

R. Axelrod and M. Cohen (1999). Chapter 4 "Selection". Pp 117-145. *Harnessing Complexity*. New York, NY: Free Press.

S. Ethiraj and D. Levinthal (2008). "Hoping for A to Z while rewarding only A: Complex organizations and multiple goals". *Organization Science*, 20(1): 4-21.

11. Financial Markets and Firm Strategy (12/4)

P. Aghion and J. Stein. "Growth versus margins: Destabilizing consequences of giving the stock market what it wants". *Journal of Finance*, 63 (3): 1025.

M. Benner (2007). The incumbent discount: Stock market categories and response to radical technological change. *Academy of Management Review*, 32 (3): 703-720.

E. Zajac and J. Westphal (2004). The social construction of market value: Institutionalization and learning perspectives on stock market reactions. *American Sociological Review*, 69: 433-458.

E. Zuckerman (1999). The categorical imperative: Securities analysts and the illegitimacy discount. *American Journal of Sociology*, 104: 1398-1438.

J. Stein (1997). "Internal capital markets and the competition for corporate resources". *Journal of Finance*, 52: 111-133.

13. **Strategic Organization: Designs for Evolveability** (12/11)

D. Levinthal and M. Warglien (1999). "Landscape design: Designing for local action in complex worlds". *Organization Science*, 10: 342-357.

H. Aldrich. (1999). Chapter 2, “The evolutionary approach”. *Organizations Evolving.* Thousand Oaks, CA: Sage.

R. Burgelman (1983). “A model of the interaction of strategic behavior, corporate context, and the concept of strategy”. *Academy of Management Review,* 8: 61-70.

J. March (1991). “Exploration and exploitation in organizational learning”. *Organization Science,* 2: 71-87.

D. Teece, G. Pisano, and A. Shuen (1997). “Dynamic capabilities and strategic management”. *Strategic Management Journal,* 18: 509-533.