



MGMT 701: STRATEGY AND COMPETITIVE ADVANTAGE

Fall 2015

SYLLABUS

Professor Nicolaj Siggelkow
Phone (215) 573-7137
e-mail siggelkow@wharton.upenn.edu
office 3461 Steinberg Hall – Dietrich Hall

This class is designed to be an upper-level course in strategy. It provides concepts and ideas for the tool-kit of the manager involved in the strategy process. We start out with the question of how value can be created and, more importantly, appropriated. This leads to the general issue of how a competitive advantage can be built. We will focus in our discussion on new concepts that have been developed around the notions of complementarities and fit. In the next section of the course, we look at the question of what decisions managers can make to sustain a competitive advantage. In the last section of the course, we will be dealing with strategy making in the face of environmental changes.

Early in the course we will form student groups who will work during the semester on the final project. More information will be provided on the first day of class. At the end of the semester, each group will present their work.

Your grade will be composed of the individual midterm paper (15%), final paper draft (8%), final paper presentation (8%), final paper (32%), and class participation (37%). The discount rate for late papers is severe. In order to pass this class, you have to make a good-faith effort with respect to class attendance, participation and the paper.

Please note, to avoid potential conflicts of interests on teams, you cannot take this class with the Pass/Fail option.

Please note that this syllabus is subject to change with prior announcements.

Also note that overheads will be posted after each class on Canvas.

The TA for this class is Phebo Wibbens (phebo@wharton.upenn.edu). The TA will be mainly responsible for your paper projects.

A short note on proper citations

To most of you this will be probably self-evident, but I want to make sure that we all understand: Copying paragraphs from sources (magazine, newspaper articles, analyst reports etc.) without properly citing them is a SERIOUS offense! Properly citing means: if you copy word-by-word, you have to mark this by enclosing the copied text with quotation marks “ “ and citing the source. Even if you don’t copy word-by-word, but you take someone else’s idea, you have to indicate in a citation the source of that idea. This citation has to follow directly the idea (attach a footnote or an endnote). At the end of the paper, you should then list all sources that you have cited in the text.

Let me re-iterate: Non-proper citing is a very serious academic offense that in other courses has led professors to fail students and bring these students to the attention of the academic review board of the University. I think all of us want to avoid any such incident – and it is really easy to avoid such problems. Simply be careful in your papers that you attribute ideas/frameworks etc. that you use to their respective sources.

Individual Midterm paper (Due 10/19, noon)

Select a firm that has engaged in a “connected strategy” business model innovation. (We will talk about this concept on 9/17). Address the following questions:

- 1) Briefly describe the business model innovation.
- 2) What industry does the firm operate in? Conduct an industry analysis (5 Forces + complementors) and evaluate the general overall industry attractiveness.
- 3) Which of these structural features does the new business model address better or worse?
- 4) How has the innovation affected WTP?
 - a. What are the specific WTP drivers?
 - b. How well does the new business model address these (relative to substitutes/competitors)?
- 5) How has the business model innovation affected (unit) cost?
- 6) Do the considerations in 4) and 5) differ by market segment? As a result, for which segment is the firm’s (transactional) competitive advantage the largest?
- 7) Describe a few of the particular activities chosen by the firm to implement its strategy.
- 8) Pick at least two pairs of activities and show that they are complementary.
- 9) What are some challenges that this firm is facing going forward?

Please keep the maximum of the paper to 5 pages of text (plus 1-2 pages of exhibits if needed).

I. PREVIEWS

8/27 Session 1: Course Logistics, What is Strategy? Five-Force Analysis

Mintzberg, Henry, and James A. Waters. 1985. "Of Strategies, Deliberate and Emergent." *Strategic Management Journal* 6: 257–272.

Porter, Michael E. 2008. "The Five Competitive Forces that Shape Strategy." *Harvard Business Review*, January, pp. 79-93.

Study questions:

Please read the Mintzberg and Waters (1985) piece and review your notes on Five-Force Analysis. The Porter (2008) article is a nice recap of industry analysis.

1. How would you define "strategy"?
2. Who makes strategy? Who should make strategy? In your experience, have strategies been deliberate or emergent?
3. What is a Five-Force Analysis? What makes such an analysis difficult?

9/1 Session 2: Preview Case

Case: Intel Corporation: 1968-1997, 9-797-137

Study questions:

1. How did Intel create a competitive advantage in DRAMs?
2. Why did Intel get out of DRAMs in 1985?
3. How did Intel build a competitive advantage in microprocessors? How has the company managed to sustain this advantage?

II. VALUE CREATION, APPROPRIATION, AND FIT

9/3 Session 3: Complementors

| |
|---|
| <i>Complete Team Sign-Up by 5pm on 9/3 Via Canvas</i> |
|---|

Brandenburger, Adam M., and Barry J. Nalebuff. 1996. *Co-opetition* pp. 11–34.

Case: Power Play (A): Nintendo in 8-bit Video Games, 9-795-102

Study questions:

1. Nintendo successfully recreated the home video game business following the Atari-era boom and bust. How did it do so?
2. How was Nintendo able to capture value from the home video game business? Use the Value Net as a starting point for your answer.

9/8 Session 4: Value Creation, Value Appropriation

Brandenburger, Adam, and Harborne Stuart. 1996. "Value-Based Business Strategy." *Journal of Economics and Management Strategy* 5 (1): 5–24.

Study questions:

Please review the concepts of value creation, value appropriation, and added value from your notes from MGMT 611/612. If you need, please read Sections 1-6 of the Brandenburger/Stuart paper. To check your understanding of the concepts of value creation and added value answer the following questions:

1. There are three firms, labeled A , B , and C , each able to produce a single unit of a product. There are numerous suppliers, each of which can supply the necessary input to only one firm; each supplier has a supplier cost (or opportunity cost) of \$4. There are two buyers, each interested in buying at most one unit. Both buyers have a willingness-to-pay of \$9 for each firm's product.
 - a. What is the total value of this game?
 - b. What is the added value of each player?
 - c. How much value do you expect each player to capture?
 - d. Now suppose a slight change to the game. Everything is the same for firms B and C as before. But now, suppliers have a supplier cost of \$5 for supplying firm A , and buyers have a willingness-to-pay of \$11 for firm A 's product. Recalculate the added values of the players, and find how much value each player will capture, in the second game.
2. There are three firms, labeled A , B , and C , each able to produce a single unit of a product. There are numerous suppliers, each of which can supply at most one firm. Each supplier has a supplier cost of \$2 of supplying firm A , a supplier cost of \$3 of supplying firm B , and a supplier cost of \$5 of supplying firm C . There are two buyers, each interested in buying at most one unit. Each buyer has a willingness-to-pay of \$10

for firm *A*'s product, a willingness-to-pay of \$12 for firm *B*'s product, and a willingness-to-pay of \$13 for firm *C*'s product. Thus, firm *A* is the cost leader in this market, and firm *C* is the differentiator or high-quality provider.

- a. What is the total value of this game?
- b. What is the added value of each player?
- c. How much value do you expect each player to capture?
- d. How does this example relate to Porter's claim that firms should avoid becoming "stuck in the middle"?

9/10 Session 5: Positioning and Tradeoffs

Paper Topic Proposal Due at the Beginning of Class 9/10

Porter, Michael E. 1996. "What is Strategy?" *Harvard Business Review* (November-December): 3–11 (up to Section IV).

Case: Harnischfeger Industries: Portal Cranes, 9-391-130

Study questions:

First, read the Harnischfeger case and answer questions 1-3 below. Then, please read pages 3–11 of Porter's "What is Strategy" article (Sections I - III).

1. How much value does a portal crane create? **You have to crunch some numbers here!** To answer this question, find the amount that customers would be willing to pay to Harnischfeger for the crane and other services Harnischfeger provides. For ease of calculation assume an infinite work-life of the crane. (This allows you to use yearly benefits/costs and treat them as annuities. Moreover, the discounted value of payments 20 years out will not materially affect the results.) Assume a discount rate of 10%. In calculating the cost of the crane and associated services assume that the margin on "installation" is 25% and on "equipment and parts" is 50%. You can ignore taxes.
2. Who is appropriating the value? Why?
3. What are Harnischfeger's strategic options? What should Harnischfeger do?
4. What, in your view, are the five key points in Porter's article (up to Section IV)?

9/15 Session 6: Complementarities and Fit

Please turn in a copy of Lincoln's activity system at the beginning of class

- Porter, Michael E. 1996. "What is Strategy?" *Harvard Business Review* (November-December): 11–20 (Sections IV-V).
- Milgrom, Paul, and John Roberts. 1992. Economics, Organization, and Management Chapter 4, pp. 108–116.
- Milgrom, Paul, and John Roberts. 1995. "Complementarities and Fit: Strategy, Structure, and Organizational Change in Manufacturing." *Journal of Accounting and Economics* 19: 179–208.
- Siggelkow, Nicolaj. 2002. "Evolution toward Fit." *Administrative Science Quarterly*, 47: 125-159.
- optional: Porter, Michael E. and Nicolaj Siggelkow. 2008. "Contextuality within Activity Systems and Sustainability of Competitive Advantage." *Academy of Management Perspectives*, 22 (2), pp. 34-56.
- optional: Collis, David J. and Michael G. Rukstad. 2008. "Can You Say What Your Strategy Is?" *Harvard Business Review*, April, pp. 82-90.

Study questions:

I would approach the readings for this session in the following sequence: First, read pages 11–20 of Porter's "What is Strategy" article. Then read the 9 pages from the Milgrom and Roberts (1992) textbook (108–116) followed by the excerpts from the Milgrom and Roberts (1995) article. Skim the Siggelkow (2002) article for now, and read in full later. For those who wish to get an even broader overview of the topic of interactions and how current research has tackled this issue, see the Porter and Siggelkow (2008) article. Lastly, the Collis and Ruckstad (2008) piece provides a nice overview of what we have covered so far. Note, the last two articles are optional (I will not cover them explicitly in class) and can be read at any time after this session.

1. What, in your view, are the five key points in the second part of Porter's article?
2. What is the definition of complementarity as given by Milgrom and Roberts?
3. Be prepared to discuss why the elements from Table 2 (and Table 3) in the Milgrom and Roberts paper are complementary to each other.

4. Using the information given in Section 5 of the paper, draw an activity system of Lincoln Electric. **Please turn in a copy of your activity system at the beginning of class.** (It can be hand-drawn as long as I can read it; don't waste time on fancy graphics.)

9/17 Session 7: Connected Strategy

Case: eHarmony, 9-709-424

Study questions:

In the first part of this class we will talk about the concept of “Connected Strategy” which forms the core of your individual midterm paper. Then we will talk about the eHarmony case.

1. Why do people want to meet others on-line instead of finding them in the real world?
2. How structurally attractive is the on-line personals market?
3. Does eHarmony have a competitive advantage? If so, where does it come from?
4. How serious is the competitive threat to eHarmony?
5. Which of the four options should Waldorf pursue?

9/22 Session 8: Positioning Applied: Low Cost

Case: Airborne Express (A), 9-798-070

Study questions:

1. How has the express mail industry structure evolved in recent years? How have the changes affected small competitors?
2. How has Airborne survived and prospered in its industry?
3. Quantify Airborne's sources of advantage (**this means you need to crunch some numbers**). Since the case does not allow you to compare willingness to pay across companies more than qualitatively, we will focus on costs. Specifically, compare the costs of an overnight letter shipped by Airborne Express to one shipped by Federal Express.

4. What must Robert Brazier, Airborne's President and COO do in order to strengthen the company's position?

9/24 Session 9: Positioning Applied: Differentiator

Case: Husky Injection Molding Systems, 9-799-157

1. What is Husky's strategy? Why has the company been so successful in the period prior to the recent problems?
2. Are Husky injection molding systems worth the premium price the company charges? Be precise (i.e., crunch numbers).
3. What has caused Husky's current difficulties?
4. How might Robert Schad, Husky's CEO, and the company respond? How should they respond?

9/29 Session 10: Positioning Applied

Case: Trader Joe's, 9-714-419

Study questions:

1. How do firms in the supermarket industry make money?
2. What are the key sources of Trader Joe's competitive advantage?
3. What are the main threats to Trader Joe's competitive advantage? Is their advantage sustainable?
4. How would you modify Trader Joe's strategy going forward?

10/1 Session 11: Positioning Applied

Case: LEGO (A): The Crisis, N9-73-478

Study questions:

As this case opens, iconic toymaker LEGO stands on the brink of bankruptcy. Jørgen Vig Knudstorp, LEGO's young and newly appointed CEO, must size up changes in the toy industry, learn from the company's recent moves, and craft a strategy that will put LEGO back on track.

1. What has led the LEGO Group to the edge of bankruptcy?

2. What is your assessment of the management moves during “the growth period that wasn’t” and “the fix that wasn’t”?
3. As Jørgen, what would you do throughout the LEGO Group in order to turn the company around? Be specific.

10/6 Session 12: Time for Research: No Class

10/8 Fall Break: No Class

III. SUSTAINABILITY OF A COMPETITIVE ADVANTAGE

10/13 Session 13: The Decision to Commit to Large Irreversible Investments

Case: Du Pont’s Titanium Dioxide Business (A), 9-390-112

Study questions:

1. As Chairman of DuPont’s Executive Committee, would you vote for the "maintain" strategy or the "growth" strategy? Why?
2. How much of a cost advantage does DuPont have in titanium dioxide? For example, what cost advantage would DuPont have producing TiO_2 in a 100,000 ton per year (tpy) ilmenite chloride plant compared to TiO_2 produced in a 50,000 tpy rutile chloride plant added by one of its competitors? [**Bonus question** for number crunchers: Using data from Table 1, derive your own estimates of economies of scale and economies of learning.]
3. How sustainable is DuPont's competitive advantage?

10/15 Session 14: Time for Research: No Class.

| |
|--|
| <i>Individual Midterm Paper Due 10/19 noon</i> |
|--|

10/20 Session 15: Sustainability

Ghemawat, Pankaj. 1991. Commitment Chapter 5: pp. 81–103.

Ghemawat, Pankaj, and Patricio del Sol. 1998. “Commitment versus Flexibility?”
California Management Review (Summer): 26–42.

Study questions:

1. How do firms sustain their competitive advantage in Ghemawat’s view? How does this view differ from Porter’s view?
2. What are the five key take-aways from the Ghemawat & del Sol piece?

10/22 Session 16: Student group meetings

10/27 Session 17: Competitor Reactions

Case: Bitter Competition: HSC vs. Nutrasweet (A): 9-794-079

Study questions:

1. As Bob Shapiro, you face competition in Europe and Canada for the first time. What do you do? Launch a price war or accommodate this entry? What are the payoffs for each strategy?

10/29 Session 18: Managerial Decision Making

Kahneman, Daniel, Dan Lovallo, and Olivier Sibony. 2011. “Before You Make that Big Decision.” *Harvard Business Review* (June): 51–60.

Study questions:

Please read Kahneman et al. HBR article. As you reflect on your own decision making, and of that which you have experienced in the organizations that you have worked for, which of the decision making pathologies that Kahneman describes have you been able to observe?

11/3 Session 19: Strategic Inflection Points, Increasing Returns

Grove, Andrew S. 1996. Only the Paranoid Survive. pp. 27–35.

Arthur, Brian W. 1996. "Increasing Returns and the New World of Business." *Harvard Business Review* (July-August): 101–109.

Study questions:

I would first read the few pages by Grove, then the Arthur article.

1. What is a Strategic Inflection Point? How do you recognize one? (Please try think of ways beyond the ones Grove suggests.) Where in the cases that we have studied did SIPs occur? What are other examples of SIPs?
2. What does Arthur mean by the term "increasing returns"?
3. What are instances of increasing returns that we have seen in the cases that we have studied?
4. Under what (general) conditions should we expect increasing returns?
5. How do you exploit increasing returns?

11/5 Session 20: Information Asymmetry and Entry

| |
|--|
| <p><i>Paper Draft Due by 9am 11/5. Please bring one hardcopy to class.</i></p> |
|--|

Case: Honda (A): 9-384-049

Study questions:

1. What is the strategy that has allowed Honda to be so successful in the motorcycle industry and, in particular, in the United States?
2. How did Honda come to have this strategy and its associated choices?

11/10 Session 21: Barriers to Change

Case: will be distributed in previous class

11/12 Session 22: Architectural, Disruptive Change, Change in the Presence of Fit

Bower, Joseph L., and Clayton Christensen. 1994. "Disruptive Technologies: Catching the Wave." *Harvard Business Review*, January-February: 43–53.

Henderson, Rebecca M. and Kim B. Clark. 1990. "Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms." *Administrative Science Quarterly* 35: 9–30.

Siggelkow, Nicolaj. 2001. "Change in the Presence of Fit: The Rise, the Fall, and the Renaissance of Liz Claiborne." *Academy of Management Journal*, 44, pp. 838-857.

optional: Sosa, Manuel, Steven D. Eppinger, and Craig M. Rowles. 2007. "Are Your Engineers Talking to One Another When They Should?" *Harvard Business Review*, November, pp. 133-142.

optional: Christensen, Clayton M. 1997. *The Innovator's Dilemma* pp. 3–28.

Study questions:

1. How do Henderson and Clark explain that leading firms are frequently upset by entrants?
2. How does Christensen explain that leading firms are frequently upset by entrants?
3. Is tight fit among activities a liability when the environment changes?
4. Is the reasoning developed by these authors transferable outside the realm of technological innovation? How?

11/17 Session 23: Modularity and Competitive Advantage Revisited

Baldwin, Carliss Y., Kim B. Clark. 1997. "Managing in an Age of Modularity." *Harvard Business Review* (September-October): 84–93.

optional: Siggelkow, Nicolaj and Phebo Wibbens. "A Ladder of Competitive Advantage." [to be distributed separately]

Study questions:

1. What are the benefits of modularization? How would you try to quantify these benefits?
2. Is the concept of modularization useful outside the domain of product design?

11/19 Session 24: Strategic Planning

Optional: Lafley, A.G., Roger L. Martin, Jan W. Rivkin, Nicolaj Siggelkow. 2012. "Bringing Science to the Art of Strategy" *Harvard Business Review*, September, pp. 56-66.

Study questions:

You don't need to read the HBR article, I will talk about it in detail. It's there for your reference.

1. You are being asked by your boss/your client: "Please help us in drafting up our next strategic plan." What do you do? What questions do you need to have addressed?
Please write-up your answer (1-2 pages bullet point).

11/24 Session 25: Time for Research: No Class

11/26 Thanksgiving: No Class

IV. IT'S YOUR TURN

12/1 Session 26: Group Presentations

Please read the papers that will be presented at the respective session.

12/3 Session 27: Group Presentations

Please read the papers that will be presented at the respective session.

12/8 Session 28: Wrap-Up

Optional: Competition and Business Strategy in Historical Perspective, 9-798-010

Study questions:

If you find time, I would recommend reading the strategy survey piece. It provides a nice overview of the field of strategy from both an academic and consulting point of view. I believe you will enjoy it as a "capstone" reading for this class.

| |
|---|
| <i>Final Paper Due 12/14 at noon! ☺ E-mail peer evaluation form</i> |
|---|