

# **MEC 797: Competitive Strategy and Industry Structure**

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## **Overview and objective of the class:**

In the last 30 years, the use of formal economic tools, in particular game theory, has revolutionized our understanding of firm decisions and industry dynamics, allowing new insights into a variety of a key questions. This course will approach the topic of competitive strategy using an economics framework. This use of economic tools allows us to formally evaluate how firms implement and execute strategy decisions. It also allows us to operationalize and synthesize many of the tools that you have learned in other courses.

## **We develop four key themes throughout the course:**

### **1) Market structure and competition**

Why are some industries profitable and some not? How do strategic commitments affect market equilibrium? What is the effect of product positioning on market competition? Why do the firms in some industries coexist, while there are destructive price wars in other industries? How does this depend on the underlying characteristics of the industry? We will use the tools of economics and game theory to see how conditions such as market concentration, cost and capacity asymmetries among existing competitors, characteristics of sales transactions, and volatility of demand conditions are likely to influence how firms compete. We will study the way in which expectations about competitors' future behavior enter into firms' decisions today.

### **2) Commitment and the value of flexibility**

Strategic decisions are typically hard to change once they are made. Precisely because of this inflexibility, strategic decisions can have commitment power: they can affect the expectations, and hence behavior, of competitors in ways that will benefit the committed firm. But, in a changing environment, commitments also reduce a firm's flexibility and thus are risky. We will think about what determines the power of commitment in affecting the strategic environment, and provide a framework for thinking about the value of flexibility. Through this, we will be able to better understand the right tradeoffs between commitment and flexibility.

### **3) Entry and exit**

How can an incumbent firm influence the entry process? As an outsider, when should we enter a new market? What distinguishes a credible threat from an empty one? How does a firm decide on the appropriate response when faced with the possibility of entry? Should it fight, or attempt to achieve a sustainable position in a shared market? How does this depend on the characteristics of the entering firm and the industry? When is it time to exit a declining industry?

### **4) Technological change and network externalities**

When is it time to replace one generation of a product by the next? On one hand, new products can take away the sales of existing products. On the other hand, delays in introduction risk allowing a competing firm to establish a viable position in the market. Intel has typically been the first to introduce products, thereby making its own products obsolete. Other companies, such as IBM and Nintendo at various points, have made conscious decisions to allow a competitor to be the first to market with the next generation of a product. How do the problems facing these firms differ, and how can a firm facing this problem analyze the tradeoffs involved in deciding on the best course of action? How and when should a firm license technology? When Intel first developed the 8086, it licensed the technology to both IBM and AMD. What were the benefits and risks to Intel of doing this? Many new products, ranging from web browsers to fax machines to internet auction sites, are characterized by network externalities, where the value from owning the product depends on how many other people already own the product. In this case, the firm which controls the technological standard is often in a position to reap great advantage. What are the forces influencing competition between firms in the presence of network externalities? Do network externalities imply that Netscape could have used its early dominance to prevent the entry by Microsoft in the market for web browsers?

## Course Materials:

- 1) Textbook: *The Economics of Strategy 3<sup>rd</sup> ed.* (New York: Wiley, 2003) by David Besanko, David Dranove, Mark Shanley and Scott Schaefer. (From now on, we use the abbreviation **BDSS**.)
- 2) Course packet, which contains the following material:
  - Syllabus
  - Cases, from Harvard Business School, Stanford GSB and the Olin School
  - Articles, from Harvard Business Review and McKinsey Quarterly
- 3) Handouts during class, which include the following material:
  - Learning points for each case
  - Additional notes for some cases
  - Follow-up cases for GE-Westinghouse and Kodak-Polaroid
- 4) The webpage of the class, Blackboard (<http://blackboard.olin.wustl.edu>), which contains the following material:

Before the class:

- Syllabus (also in course packet)
- Lecture notes
- Problems
- Sample case memo

After the class:

- Learning points for each case and additional notes for some cases (also handed out in class)
- Final exam

## **Class organization:**

**Format of class:** Classes will consist of case discussions, lectures and breakout sessions. The classes are designed to highlight key concepts, clarify areas of difficulty, and provide a general framework to address the subject matter. We will spend about 50% of class time on case discussions, 25% on breakout sessions and 25% on lectures. The cases form the foundation of the class, where we will analyze firm and industry decisions through a class discussion of particular firms and situations. The goal of the lectures is to explain economic concepts and to summarize the discussions of particular facets of some cases. Each of the eight modules will have a breakout session in the middle with an assignment due, for a total of eight breakout sessions. These sessions allow you to synthesize the ideas and material. I will go from room to room during the breakout sessions, in order to answer questions.

**Participation:** I expect regular class participation. Everyone is expected to prepare the assigned cases in advance. *I will call on individuals during case discussions.* Be prepared to justify your answer with plausible reasoning. As an encouragement, 20% of your final course grade will depend on the quality of your participation in class.

**Cases:** We will cover seven cases during the class. As detailed in the schedule, you will write cases memos on six of these cases during breakout sessions. The case memos will answer specific questions, based on your group number. Groups A and B will answer question 1, groups C and D will answer question 2, Groups E and F will answer question 3, and Groups G and H will answer question 4. Five of the seven cases (those that do not start with a breakout session) have questions to consider before class.

**Lecture notes and problems:** I will post lecture notes and problems on Blackboard. The class notes primarily consist of copies of the PowerPoint slides and as such, are not a substitute for the textbook. Their primary purpose is to give you an outline of the material covered in the class, and to economize on note taking. You should also review this material after class.

**Laptops:** I will not allow laptops to be used in class, as they are too much of a distraction from the discussion, and are generally not as good as a pen for taking notes on PowerPoint slides. If a student has a particular need to use a laptop, please ask me and I will be willing to consider its use.

**Feedback:** I encourage you to actively get involved in this course. Classes are meant to be interactive. If you find any material incomplete or confusing, please bring it up during classes or break times. I also ask that you provide me with your feedback and comments about the course on a daily basis. I will try my best to respond to your concerns and accommodate most of your suggestions in a timely manner.

## **Preparation for class:**

### **Preparation before class:**

- Read the assigned textbook material and cases in advance. For each case, you should be very familiar with the facts and prepared to discuss firm strategies.
- For five cases, there are specific questions to prepare before class. You should think about these questions and write notes for yourself on your answers.
- For the six cases with case memos, you should prepare written comments before class. You will then integrate these with your team members' comments during the breakout sessions and submit a case memo.
- You might want to look over the lectures and problems posted on Blackboard before class. This will allow you to familiarize yourself with the material, although this is not essential.

### **Preparation after class (for final exam):**

- Carefully read the learning points for each case.
- Review the lecture notes, and make sure that you understood all the material.
- Go through the problems that we did in the breakout sessions, to make sure that you fully understand the answers.

## **Grading:**

Breakout session assignments: 30%

Class discussion: 20%

Extended case memo: 20%, due August 22, 2005

Final exam: 30%, due August 22, 2005

**Breakout sessions assignments:** I will assign problems or a case memo during each breakout session. These assignments are to be done as a group. Each study group must turn in their assignments by the end of the session and then be prepared to discuss their answers with the rest of the class. There will be eight breakout session assignments – one for each module of the course. The assignments will constitute 30% of your course grade. Grading for the case memos will be based on familiarity with the case, originality, and clarity and depth of thought. Grading for the problems will be based primarily on whether the thought process is correct although technical details will also count.

**Class discussion:** Class discussion is an integral part of the learning experience for this class. To ensure class participation, I will call on students. After each session, I will make notes about each student's participation for each student, and use these to determine an overall participation grade. I value thoughtful participation, not necessarily obtaining the correct answer.

**Extended case memo:** This assignment is to be done as a group and can be no longer than four pages. Grading will be based on originality, clarity, depth of thought and the writing. Your extended memo can be based on a case that we covered in class, but it is not required to be. One natural starting point for the extended memo is further explaining a discussion of a case that your group found confusing, or felt missed or underplayed a key point. Alternatively, your group may be curious as to how events have played out in the period after the case took place. Or, your group may wish to explore an interesting analogy between a case that we studied in class and another industry with which your group is familiar. This assignment is due August 22, 2005.

**Final exam:** The final exam is to be done on an individual basis. It is only required for two sets of students: those who would like to be considered for a High Pass, and those students who did not have satisfactory performance up till the final. (I will e-mail any students who do not have satisfactory performance, after the class.) The final exam is based on the theoretical tools and case insights from the class. You may use your notes but cannot consult other students for this exam. The exam is due August 22, 2005. The exam is self scheduled with a recommended two-hour length.

## **Course schedule:**

### **August 5: morning (Module 1)**

#### **Topic 1: What is strategy anyway?**

General theme: Overview of broad concepts in the field.

#### Readings:

- 1) BDSS Chapter 12: Sustaining Competitive Advantage.
- 2) Porter, M. (1996). "What is strategy?" *Harvard Business Review* 74: 61-78.

#### **Lecture notes: "Strategy overview"**

#### **Topic 2: The Nintendo case**

General themes: Value creation and value capture. Network externalities. Managing the product life cycle. The replacement and efficiency effects.

#### Readings:

- 1) HBS (Harvard Business School) Cases 9-795-102, 9-795-103 *Power Play (A) and (B)*.
- 2) BDSS Chapter 10: Industry Analysis.
- 3) BDSS Chapter 13: The Origins of Competitive Advantage: Innovation, Evolution, and the Environment.

#### **Pre-class preparation**

Please prepare a Porter five-force analysis of the industry before coming to the class.

#### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) What are the various competitive threats that Nintendo's NES faced in 1989, prior to the entry of Sega? How did Nintendo deal with these threats? (Groups A and B)
- 2) Why did Atari fail in the video game market? (Groups C and D)
- 3) Why did Nintendo delay introducing a 16-bit machine in the U.S. as long as it did? Do you agree with this decision? (Groups E and F)
- 4) How did Nintendo overcome the problems that Atari faced and create a valuable market? (Groups G and H)

#### **Class format:**

**Lecture, introductory case discussion on Nintendo, breakout session, further case discussion**

## **August 5: Afternoon (Module 2)**

### **Topic 3: Review of game theory and economics**

General theme: Market structure and the classic models of oligopoly.

Readings:

- 1) BDSS, Primer: Economic Concepts for Strategy.
- 2) BDSS, Chapter 6: Competitors and Competition.

**Lecture notes: “Game theory”**

#### **Breakout session assignment**

Answer the listed problems given in Blackboard under “Game theory.” You should turn in your solutions to the problems and be prepared to discuss your answers with the rest of the class.

**Class format:**

**Lecture, breakout session, discussion of problems**

## **August 6: Morning (Module 3)**

### **Topic 4: Strategic commitment**

General themes: Tough and soft commitments. Value of commitments with respect to competitors.

Readings:

- 1) BDSS, Chapter 7: Strategic Commitment.

### **Lecture notes: “Strategic commitment”**

### **Topic 5: The Staples – Office Depot case**

General themes: Impact of mergers on industry costs, profits and structure. Competition in retail industries. Geographic product differentiation. Strategic commitments implicit in a merger.

Readings:

- 1) Stanford Graduate School of Business Case S-P-24 *The Staples-Office Depot Merger?*

### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) What do you think about the cost reduction arguments? (Groups A and B)
- 2) What arguments suggest that prices would have been higher (or conversely lower) with the merger? (Groups C and D)
- 3) If the merger had been completed, what would you expect the long run effect on the number of stores that OfficeMax opens? How about the merged Office Depot – Staples? (Groups E and F)
- 4) Is the merger a soft commitment or a tough commitment? (Groups G and H)

### **Class format:**

**Lecture on commitment, breakout session, case discussion on Staples**

## **August 6: Afternoon (Module 4)**

### **Topic 6: The GE versus Westinghouse case**

General theme: Dynamics of oligopoly pricing.

Readings:

- 1) HBS Cases 9-380-128 – 9-380-130 *GE Versus Westinghouse in Large Turbine Generators (A), (B) and (C)*. [(B) and (C) will be handed out in class.]
- 2) BDSS Chapter 8: The Dynamics of Pricing Rivalry.
- 3) (Optional) Porter, Chapters 4, 5, and 7.

### **Pre-class preparation**

Please prepare your thoughts on the following questions before coming to the class:

- 1) What is interesting about this case, especially given that it is over 50 years old?
- 2) Why are there so few firms in the industry?

### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) Why is there so much overcapacity in the industry? (Groups A and B)
- 2) Why does demand in the industry look so cyclic? Does this mean that this is an industry that is hard to make money from? (Groups C and D)
- 3) What should GE's strategy be in 1963, after Allis-Chalmers has exited? (Groups E and F)
- 4) Do you think that GE and Westinghouse could implement some sort of dynamic pricing strategy to avoid the price fluctuations? Why or why not? (Groups G and H)

## **Topic 7: Antitrust law and competitive strategy**

### **Optional topic if time permits**

General theme: Legality of different competitive strategies.

Readings: None

**Lecture notes: "Antitrust"**

**Class format:**

**Case discussion on GE, breakout session, finish case discussion, lecture on antitrust (if time permits)**

## **August 7: Morning (Module 5)**

### **Topic 8: Netscape versus Internet Explorer case**

General themes: Information economics. Network externalities. Judo strategy.

Readings:

- 1) HBS Case 9-798-094 *The Browser Wars, 1994-1998*.

#### **Pre-class preparation**

Please prepare your thoughts on the following questions before coming to the class:

- 1) Web browsers are a “new economy” good. What distinguishes new economy markets from other markets?
- 2) What do you think of Netscape’s pricing strategy before Internet Explorer’s entry? Should Netscape have subsidized consumers, developers or neither?
- 3) What strategies could Netscape have used to fight back against Internet Explorer’s increasing dominance?

Note: There is no case memo required for this case.

### **Topic 9: Gillette’s launch of Sensor case**

General themes: Product introduction. Product positioning. Competition in differentiated product markets.

Readings:

- 1) HBS Case 9-792-028 *Gillette's Launch of Sensor*.
- 2) BDSS Chapter 11: Strategic Positioning for Competitive Advantage.

#### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) What are the incentives of Gillette’s managers? (Groups A and B)
- 2) Does Gillette have a sustainable advantage? If so, what is it? (Groups C and D)
- 3) Should Gillette introduce the Sensor on a rapid schedule, or should it follow a more gradual approach? (Groups E and F)
- 4) Do you agree with Gillette’s decision to position the Sensor as a cartridge as opposed to a disposable? What are the long-run implications of this decision? (Groups G and H)

**Class format:**

**Case discussion on Netscape, breakout session, case discussion on Gillette**

## **August 7: Afternoon (Module 6)**

### **Topic 10: The credit card industry case**

General themes: Information economics. Adverse selection. Monopolistic competition.

Readings:

- 1) John M. Olin School of Business Case: *The Credit Card Industry in the United States*.

### **Pre-class preparation**

Please prepare your thoughts on the following questions before coming to the class:

- 1) Go through the numbers in the case and examine how profitable the credit card industry appears.
- 2) How does adverse selection affect competition in this industry?

### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) Why have airline loyalty cards (e.g. Citibank AAdvantage card) done so well while automobile loyalty cards (e.g. Ford and GM) not done as well? (Groups A and B)
- 2) What would be the long term effect on industry structure if banks learn to evaluate credit risks much more precisely as Capital One does? (Groups C and D)
- 3) What is the effect of loyalty (e.g. frequent flyer) programs on competition among credit card issuers and the partnering brands (e.g. airlines)? (Groups E and F)
- 4) How does the credit card industry create value? (Groups G and H)

**Class format:**

**Case discussion, breakout session, finish case discussion**

## **August 8: Morning (Module 7)**

### **Topic 11: Flexibility and option value**

General themes: The economics of investment decisions. Sunk costs and uncertainty.

Readings:

- 1) Dixit, A. and R. Pindyck (1995). "The options approach to capital investment." *Harvard Business Review* 73: 105-115.
- 2) Copeland, T. and P. Keenan (1998). "How much is flexibility worth?" *McKinsey Quarterly* 2: 38-49.

**Lecture notes: "Option value"**

#### **Breakout session assignment**

Answer the listed problems given in Blackboard under "Option value." You should turn in your solutions to the problems and be prepared to discuss your answers with the rest of the class.

**Class format:**

**Lecture, breakout session, discussion of problems**

## **August 8: Afternoon (Module 8)**

### **Topic 12: The Polaroid versus Kodak case**

General theme: Entry into new markets.

Readings:

- 1) HBS Case 9-376-266: *Polaroid-Kodak*. [HBS Case 9-378-173: *Polaroid-Kodak Cases (B1) – (B10)* will be handed out in class.]
- 2) BDSS Chapter 9: Entry and Exit.

### **Pre-class preparation**

Please prepare your thoughts on the following questions before coming to the class:

- 1) What does option value have to do with this market?
- 2) How does the fact that Kodak is a supplier to Polaroid affect Polaroid's and Kodak's incentives?

### **Breakout session assignment**

Write a short memo (no longer than two pages) that answers one of the following questions. You should turn in your memo and be prepared to discuss your answers with the rest of the class.

- 1) Is there anything that Polaroid could have done in the late 1960's/early 1970's to prevent or modify Kodak's decision to enter? (Groups A and B)
- 2) Once it is clear the Kodak is entering, what strategy should Polaroid take? (Groups C and D)
- 3) What do you think should be Kodak's goals if it were to choose to enter the instant photography market? (Groups E and F)
- 4) How would you expect competition between the two firms to play out? (Groups G and H)

**Class format:**

**Case discussion, breakout session, finish case discussion**