

# EMB530 Operations Management and Supply Chain Management (OM&SCM)

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## **Learning Objectives**

The primary learning goals for this course are twofold:

- Global perspectives
- Strategic thinking and cross-disciplinary competency

The primary objective of this course is to teach the EMBA students strategic issues in operations management and supply chain management (OM&SCM), which top managers in service as well as manufacturing industries must understand. From a comprehensive perspective, OM&SCM encompasses all organizational activities (service and manufacturing) to create value for customers. During the course, we will primarily focus on how to enhance operations capabilities that enable the firm to achieve sustaining competitive advantage vis-à-vis its global competitors.

## **Course Materials**

Required materials consist of two textbooks and reading materials such as cases and papers/articles. Students are expected to study the assigned readings and cases prior to class and actively participate in class discussion.

Primary textbooks

- Kim, B. (2005). *Supply Chain Management*. John Wiley & Sons.
- Jacobs, F. R. and R. B. Chase (2010). *Operations and Supply Management: The Core*. McGraw-Hill International Edition.

## **Performance Evaluation**

The final grade will be based on the following breakdown (subject to change):

Class participation	10%
Assignments	20%
Term project	20%
Exams	50%

*Class participation* is based on the student's contribution to class discussion from the assigned readings and case studies.

*Assignments* are both individual and team case assignments.

Details of *the term project* will be announced in due course.

*The exams* are combinations of analytical problem solving, case analysis, and essay questions, both qualitative and quantitative. More details will be announced.

## CLASS SCHEDULE

*(Subject to change as the course proceeds)*

CLASS SYNOPSIS AND READING MATERIALS		
MODULE 1 OPERATIONS STRATEGY AND FIRM'S COMPETITIVE ADVANTAGE		
1	Operations strategy for competitive advantage	[K] Ch. 1; [JC] Ch. 1, 2
2	Firm's fundamental capabilities for value creation	[K] Ch. 1
3	Learning and innovation in operations management	[K] Ch. 3
MODULE 2 PROCESS AND PRODUCT STRATEGY		
4	Process analysis and design for value creation I	[JC] Ch. 4
5	Process analysis and design for value creation II	[JC] Ch. 4
6	Project and quality management	[K] Ch. 3; [JC] Ch. 6
7	New product innovation and competitiveness	[K] Ch. 4
8	Service operations management	[JC] Ch. 5
MODULE 3 DESIGNING AND MANAGING A VALUE CHAIN		
9	Structural factors of a supply chain	[K] Ch. 2; [JC] Ch. 9, 13
10	Infrastructure factors of a supply chain	[K] Ch. 2; [JC] Ch. 11
11	Strategic management of a value chain	[K] Ch. 4, 5; [JC] Ch. 8
12	Global supply chain management	[K] Ch. 6; <i>Final exam planned</i>
MODULE 4 INTEGRATION AND VALUE CREATION		
13	Course integration – group project	<i>Students presentation</i>
14	Value chain sustainability	[K] Ch. 7; [JC] Ch. 10

[K] Kim, B. (2005). *Supply Chain Management*. John Wiley & Sons.

[JC] Jacobs, F. R. and R. B. Chase (2010). *Operations and Supply Management: The Core*. McGraw-Hill International Edition.

## TEACHING CASES

### Daewoo Shipbuilding and Marine Engineering (DSME)

1. What were the key characteristics of the global shipbuilding industry? Was the shipbuilding industry an attractive one? Why or why not?
2. Define major crises faced by DSME since 1990. What were the primary factors that caused such crises?
3. How had DSME been able to overcome such crises? Categorize the methods and/or tools DSME utilized for overcoming the crises into two groups, i.e., one involving more incremental improvements and the other involving more radical/structural changes. How could these two different types of improvement methods be related with each other, in what ways?
4. What were the most critical 'operations capabilities' DSME had? Were they easy to mimic by its competitors? Why or why not?
5. Evaluate the threat from the Chinese shipbuilders. Was it real or trivial at present? In 10 years? What were the most significant differences in terms of operations capabilities between DSME and the Japanese competitors or DSME and the Chinese?
6. Should DSME start preparing for the future? If it should, in what ways? What were the most vulnerable points at DSME? Focus on the company's operations strategy.

### POSCO Way of Field-based Innovation

1. What external environmental factors had forced POSCO to focus on innovation?
2. What specific steps and measures had POSCO taken to innovate its operations? Was there any recognizable sequence of those steps and measures? If there was, was it logical? Why or why not?
3. Evaluate the forces, both internal and external, which you believe might pose potential threats to POSCO's innovation effort.
4. What kinds of advice would you give to the chairman Chung? Please explain why and how in great detail.

### Donner Company

1. Process analysis – answer the following questions:
  - A. What is the normal process flow of the production system at Donner? Draw a process flow diagram.
  - B. What orders would you schedule on the CNC drill? On the CNC router?
  - C. What is the capacity of the Dry Film Photoresist area? (assume the order size is eight.) How does capacity change with order size?
2. How is Donner doing? What problems do you see?
3. Why do these problems exist?
4. How does the information flow within the Donner factory? Trace an order as it moves from the originating customer to completion.
5. What specific actions do you recommend Plummer take to address these problems?

### Bank of America

1. How would you characterize Bank of America's new system for developing new services? Focus on its process, organization, culture, and management.
2. Compare Bank of America's approach to other product development systems you know. What are the differences? What are the similarities? Does it matter if it is a product or service that is being developed?
3. What is the role of experimentation? How can companies maximize their learning from experimentation?
4. Decision point: should Butler and Brady accept ten additional bank branches into its experimentation portfolio? Why or why not? Please be prepared to discuss your specific plans on how they should respond to.

### **BMW: The 7-Series Project (A) (HBS Case 9-692-083)**

1. What are the causes and consequences of BMW's quality problems with newly launched products? What should be done to improve "launch quality"?
2. What are your recommendations to Carl-Peter Forster concerning the 7-series prototypes? What should he do regarding future development projects?
3. What changes would you recommend in the way BMW develops new models? What attributes of newly launched products would you expect to improve as a result of these recommendations? Which attributes might deteriorate?
4. What recommendations would you make to Chairman von Kuenheim regarding BMW's strategy to compete against new Japanese entrants into the luxury car market?

### **Innovation at 3M Corporation (A) (HBS Case 9-699-012)**

5. How has 3M's innovation process evolved since the company was founded? Why, if at all, does 3M, known as a "hothouse" of innovation, need to regain its historic closeness to the customer?
6. How does the Lead User research process differ from and complement other traditional market research methods?
7. Has the Medical-Surgical team applied the Lead User research process successfully? Why or why not?
8. What should the Medical-Surgical Lead User team recommend to Dunlop, the three new product concepts or a new business strategy? What are the risks to the new Lead User process at 3M? What are the risks to the Medical-Surgical business unit?

### **IDEO Product Development**

1. How would you characterize IDEO's process, organization, culture, and management?
2. Decision point: should IDEO accept the Visor project as is (on a dramatically reduced schedule)? Should they try to persuade Handspring's management to change its aggressive launch schedule? Or should they simply decline the project? In your discussions, please consider the IDEO and Handspring perspectives.

### **Commerce Bank (HBS Case 9-603-080)**

1. Analyze Commerce Bank's service delivery system prior to Retailtainment. How well does the company's operations design support its competitive position? Which decisions in particular do you find critical to the bank's success?
2. What was the motivation for the Retailtainment program? How well did Retailtainment meet these goals? How if at all would you modify the program?
3. What would you advise as the competitive response to Commerce Bank's market entry?
4. Briefly look at the financial statements for Commerce Bank and the industry (Exhibits 1 – 4). Do you see support, or cause for concern, of the bank's strategy in the financial statements?

### **The Ritz-Carlton Hotel**

1. "Service" can be an elusive concept. What is the essence of The Ritz-Carlton experience? What is The Ritz-Carlton selling?
2. How does The Ritz-Carlton create "Ladies and Gentlemen" in only 7 days?
3. In what may be a first for the hospitality industry, Brian Collins, hotel owner, has asked James McBride, Ritz-Carlton general manager, to *lengthen* the amount of time spent training hotel employees before hotel opening. Should McBride lengthen the 7 Day Countdown?
4. Or, is this the time that McBride should consider a total overhaul of the hotel opening process? If yes, what should he change, and how should he go about doing it? What's different about experimenting in a service business?

### **Zara: Fast Fashion**

1. With which of the international competitors listed in the case is it most interesting to compare Inditex's financial results? Why? What do comparisons indicate about Inditex's relative operating economics? Its relative capital efficiency?
2. How specifically do the distinctive features of Zara's business model affect its operating economics? Specifically, compare Zara with an average retailer with similar posted prices. In order to express all advantages/disadvantages on a common basis, you may find it convenient to assume that on average, retail selling prices are about twice as high as manufacturers' selling prices.
3. Can you graph the linkages among Zara's choices about how to compete, particularly ones connected to its quick-response capability, and the ways in which they create competitive advantage? What does the exercise suggest about such capabilities as bases for competitive advantage?
4. Why might Zara "fail"? How sustainable would you calibrate its competitive advantage as being relative to the kinds of advantages typically pursued by other apparel retailers?
5. What other strategic recommendations would you make to Inditex CEO Jose Maria Castellano?

### **Crocs: Revolutionizing an Industry's Supply Chain Model for Competitive Advantage**

1. What are Croc's core competencies?
2. How do they exploit these competencies in the future? Consider the following alternatives:
  - A. Further vertical integration into materials.
  - B. Growth by acquisition.
  - C. Growth by product extension.
3. To what degree do the alternatives in Question 2 fit the company's core competencies, and to what degree do they defocus the company away from its core competencies?
4. How should Crocs plan its production and inventory? How do the company's gross margins affect this decision?

### **Supply Chain Evolution at HP**

1. What is the status of the PC industry in 1999 (products, key players, volumes)?
2. What is HP's business strategy? What does the shift in strategy imply for sourcing, manufacturing, and supply chain management?
3. Make a list of the supply chain improvement initiatives undertaken by HP in Europe. In particular, state, for each initiative:
  - A. The main reasons for launching it.
  - B. The targets (financial, operational, etc.) set.
  - C. Its project team.
  - D. Its results.
4. After the above restructuring initiatives, compare the resulting status of HP with its key competitors.
5. Given Dell Computer's stellar success, HP is seeking a viable strategy to use the Internet as a distribution channel. Devise a strategy for HP that would incorporate the needs of various customers through this channel without alienating existing channel members.

### **LG Chemical: Capacity Expansion and Product Mix in China**

1. Evaluate LG Chemical's initial globalization strategy to enter the Chinese market. In particular, were the company's globalization motivation, entry mode, and initial strategic choices consistent with each other? How was the company's supply chain structured? Did the company's supply chain strategy play an important role in enhancing the firm's performance? Why or why not?
2. Evaluate the company's growth strategy, i.e., capacity expansion and product portfolio decision. Will the company's previous strategy hold valid for the next 5 years, 10 years?
3. What advices would you give James Oh regarding the company's future strategy?

### **Walmart's Sustainability Strategy (A) (Stanford GSB Case: OIT-71)**

1. How is Walmart deriving business value from its sustainability strategy?
2. Imagine that you are Andy Ruben or Tyler Elm, evaluating the progress of the electronics, seafood, and textile networks. Which of these networks have been most successful in creating business value by reducing environmental impacts? What factors explain the success (or lack of success) of these networks?
3. How is Walmart motivating its suppliers to share information about and reduce the environmental impacts of products and processes?
4. As evidenced by Exhibit 12 in the case, Walmart's sustainability strategy has generally been profitable. However, at least one initiative described in the case benefits society and the environment, but apparently decreases Walmart's profits. Identify one or more such initiatives and imagine that you are the internal champion. How would you justify pursuing the initiative(s)?