Syllabus of
Operations Management
Service Innovation Management

生產與作業管理
服務創新與管理

敎學大綱
GENERAL INFORMATION

Date: February 18, 2008 ~ June 9, 2008
Time: 週一 6:30pm ~ 9:15pm
Venue: 管理學院
Faculty:

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Address</th>
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<tbody>
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<td>郭瑞祥教授</td>
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OBJECTIVES

1. Understand the role and importance of OM in an organization
2. Learn the fundamental concepts, tools and methodologies in OM
3. Acquire knowledge about context of application, managerial skills and better attitudes in learning

CLASS CONTRACT

1. Choose and fix your seat in classroom
2. Form your discussion group
3. Participate actively, both in the class and in the group
4. Complete the case assignments and readings before coming to the class
## CLASS TOPICS OVERVIEW

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>Harvard Case</th>
<th>Group Presentation</th>
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<td><strong>Module 1: Strategic operations management</strong></td>
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<td>2/18</td>
<td>Introduction to OM</td>
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<td>2/25</td>
<td>Information and coordination #1: ITC eChoupal</td>
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<td>郭瑞祥</td>
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<td></td>
<td><strong>Module 2: Process and service management</strong></td>
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<td>3/3</td>
<td>Process management</td>
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<td>3/10</td>
<td>Quality management</td>
<td>#1: A note on quality</td>
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<td>白凡芸</td>
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<td>3/17</td>
<td>Process design</td>
<td>#2 Benihana of Tokyo</td>
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<td>郭瑞祥</td>
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<td>3/24</td>
<td>Lean systems</td>
<td>#2: Decoding the DNA of Toyota production</td>
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<td>3/31</td>
<td>Service quality</td>
<td>#3: Putting the service-profit chain to work</td>
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<td>4/7</td>
<td>Service operations</td>
<td>#3: Shouldice Hospital</td>
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<td><strong>Module 3: Innovation management</strong></td>
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<td>4/14</td>
<td>Innovation management</td>
<td>#4: 迎著變革：老企業創新之道</td>
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<td>白凡芸</td>
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<td>4/21</td>
<td>Product development</td>
<td>#4: IDEO product development</td>
<td>#5: IDEA 物語</td>
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<td>Mid-term case exam</td>
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<td><strong>Module 4: Supply chain management</strong></td>
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<td>5/5</td>
<td>Supply chain framework</td>
<td>#6: 既快又準的供應關係</td>
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<td>5/12</td>
<td>Beers game and bullwhip effect</td>
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<td>5/19</td>
<td>Information sharing and inventory control</td>
<td>#5: Barilla Spa</td>
<td>#7: The power of virtual integration</td>
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<td>5/26</td>
<td>Supply chain integration</td>
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<td>6/2</td>
<td>Business transformation through IT</td>
<td>#6: Otis elevator</td>
<td>#9: Making business sense of e-opportunity</td>
<td>白凡芸</td>
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<td>Final case exam</td>
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**Syllabus**

**Operations Management**

**Service Innovation**

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**LEARNING MATERIALS**

**Cases**

Case 1. ITC eChoupal  
Case 2. Benihana of Tokyo  
Case 3. Shouldice Hospital  
Case 4. IDEO Product Development  
Case 5. Barilla Spa  
Case 6. OTIS Elevator

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**GRADING POLICY**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Class participation</td>
<td>25%</td>
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<tr>
<td>Case reports and presentation</td>
<td>35%</td>
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<tr>
<td>Mid-term case exam</td>
<td>20%</td>
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<tr>
<td>Final case exam</td>
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TIME/ SCHEDULE

Module 1  Strategic Operations Management

Session 1  (2/18) Introduction to Operations Management

Learning Objectives
1. Understand the importance of OM
2. Understand competitiveness through OM
3. Understand dimensions of operations strategy

Session 2  (2/25) Information and Coordination

Learning Objectives
1. Understand how information improves supply chain
2. Understand the coordination issues in global operations

Material
1. Readings: 價值鏈管理 (迅速、全球化與企業家精神)
2. Case 1: ITC eChoupal
   Soybean farmers in India have traditionally sold their product through ineffective and frequently dishonest physical marketplaces (mandi). Farmers are generally poor and often illiterate and are forced to be "price-takers" after an arduous journey to the mandi. They also have very limited access to information and education on farming techniques. This case describes the use of Internet technologies to reach these farmers and, in particular, examines a new system called the eChoupal, developed by the Indian conglomerate ITC.
3. In-class video: ITC eChoupal

Readings
價值鏈管理 (迅速、全球化與企業家精神)

Assignment
Each person prepares a two-page notes answering the following questions:
1. How do you account for Li & Fung’s success to date? What activities and capabilities are critical to the firm’s success?
2. What is the role, and the importance, of what Victor Fung calls “little John Waynes”? Think about Victor Fung’s mental picture of his people with a computer in one hand and a machete in the other. What does he mean?
3. This Li & Fung article was written in 1998. Looking to the future (beyond 1998), what threats do you see for Li & Fung? What opportunities for Li & Fung?

Case

Case 1. ITC eChoupal

Assignment

Each group prepare a two-page notes answering the following questions:

4. What was ITC’s motivation for creating the eChoupal?
5. What were the old and new physical flows and information flows in the channel?
6. What principles did it employ as it built the newly-fashioned supply chain?
7. What barriers did ITC face in embarking on this project?
8. How should ITC develop this platform for the future?

Module 2  Process and Service Management

Session 3  (3/3) Process Management

Learning Objectives

1. Introduce process improvement and process re-engineering
2. Understand the concepts of six-sigma
3. Demonstrate process flow analysis

Material

Reading: 帝國保險公司

Assignment

Each person prepares a two-page notes answering the following questions:

1. What are the problems before process re-engineering?
2. What is the process flow in handling the client’s case before process re-engineering?
3. What are the new solutions after process re-engineering?
4. What is the process flow in handling the client’s case after process re-engineering?

Session 4  (3/10) Quality Management

Learning Objectives

1. Introduce quality management philosophy
2. Understand seven quality improvement tools

**Material**

Reading: A note on quality: The views of Deming, Juran and Crosby

**Group presentation #1: A note on quality**

Group 1 prepares a Powerpoint file and presents for 30 minutes in class.

**Session 5  (3/17) Process Design**

**Learning objective**

1. Link operations strategy with process design and execution
2. Perform process analysis and capacity analysis

**Material**

1. Case 2: Benihana of Tokyo

In class we will discuss Benihana's operational design choices, the typical process flow used by a Benihana restaurant, and the impact of the design and execution of Benihana's operations strategy on the company's performance.

2. In-class video: Benihana Commercial

**Case**

Case 2. Benihana of Tokyo

**Assignment**

Each group prepare a two-page notes answering the following questions:

1. What are the differences between Benihana's production process and that of a typical restaurant? How do these differences affect a customer's service experience?

2. Examine the design of Benihana's operating system in detail. What major design choices enable the meal to be served in less than one hour during the peak period?

3. Compare the operating statistics for a typical restaurant (see Exhibit 1) with those of Benihana for major categories such as food cost, beverage cost, payroll, and rent. Why does Benihana have a food cost of 30-35%, whereas the typical restaurant has a food cost of 38-48%?

**Session 6  (3/24) Lean Systems**

**Learning Objectives**

1. Introduce Toyota production system
2. Understand the characteristics of lean systems
Material
Reading: Decoding the DNA of Toyota production system

**Group presentation #2: Decoding the DNA of Toyota production system**
Group 2 prepares a Powerpoint file and presents for 30 minutes in class.

**Session 7  (3/31) Service Quality**

**Learning objective**
1. Understand service profit chain
2. Understand service quality evaluation framework

**Material**
Reading: Putting the service-profit chain to work

**Group presentation #3: Putting the service-profit chain to work**
Group 3 prepares a Powerpoint file and presents for 30 minutes in class.

**Session 8  (4/7) Service Operations**

**Learning objective**
1. Understand service operations and service quality
2. Understand capacity planning at various stages in the operation of a medical “factory.”

**Material**
1. Case 3: Shouldice Hospital

Various proposals are set forth for expanding the capacity of the hospital. In assessing them, serious consideration has to be given to the culture of the organization and the importance of preserving it in a service delivery system. In addition to issues of capacity and organizational analysis, this case describes a well-focused, well-managed medical service facility that may well point the way to future economies in the field.

2. In-class video: Shouldice Hospital

**Case**
Case 3. Shouldice Hospital

**Assignment**
Each group prepare a two-page notes answering the following questions:
1. How successful is the Shouldice Hospital?
2. How do you account for its performance?

3. As Dr. Shouldice, what actions, if any, would you take to expand the hospital capacity? How would you implement changes you propose?

Module 3  Innovation Management

Session 9  (4/14) Innovation Management

Learning objective
1. Understand innovation value chain
2. Understand various types of innovation
3. Understand how to Innovate within established enterprises

Material
1. Reading: 好點子生產線
2. Reading: 進退有據：老企業創新之道

Group presentation #4: 進退有據：老企業創新之道

Group 4 prepares a Powerpoint file and presents for 30 minutes in class.

Session 10  (4/21) Product Development

Learning Objectives
1. Understand prototyping and experimentation practices at a leading product developer
2. Understand the role of playfulness, discipline, and structure in innovation processes
3. Understand the managerial challenges of creating and managing an unusually creative and innovative company culture

Material
1. Readings: 「The Art of Innovation」 by Tom Kelley (IDEA 物語：大塊文化)
2. Case 4: IDEO product development

The case describes IDEO, one of the world's leading product development firms, and its innovation culture and processes. It is an example of what managers can do to make their own organizations more innovative. Dennis Boyle, a studio leader, is asked by the business start-up Handspring to develop a novel hand-held computer (Visor) in less than half the time it
took to develop the Palm V, requiring several shortcuts to IDEO's legendary innovation process analysis of the process.

3. In-class video: Deep Dive

Case

Case 4. IDEO product development

Assignment

Each group prepare a two-page notes answering the following questions:

1. How would you characterize IDEO’s process, organization, culture and management?

2. Should Boyle 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.

Group presentation #5: IDEA 物語

Group 5 prepares a Powerpoint file and presents for 30 minutes in class.

Session 11 (4/28) Mid-term Examination

The mid-term exam will be an in-class, open-book, case-based written exam.

Module 4 Supply Chain Management

Session 12 (5/5) Supply Chain Framework

Learning Objectives

1. Understand supply chain framework and drivers

2. Learn how quick response increases competitiveness

Material

Readings: 既快又準的供應關係

Group presentation #6: 既快又準的供應關係

Group 6 prepares a Powerpoint file and presents for 30 minutes in class.
Session 13 (5/12) Beers Game and Bullwhip Effect

Learning Objectives
1. Play beers game
2. Experience bullwhip effect
3. Understand how to reduce bullwhip effect through effective supply chain solutions

Material
1. Beers game simulation software
   Download the software from the web site, setup in your notebook PC and bring your notebook PC to the classroom. We will play the Beers game using simulation software in class by groups.
2. Readings: The bullwhip effect in supply chains

Session 14 (5/19) Information Sharing and Inventory Control

Learning Objectives
1. Understand the coordination issues in supply chain
2. Understand how to manage information and inventory to reduce bullwhip effect

Material
1. Readings: The power of virtual integration
2. Case 5: Barilla Spa
   Barilla Spa, an Italian manufacturer that sells to its retailers largely through third-party distributors, experienced widely fluctuating demand patterns from its distributors during the late 1980s. This case describes a proposal to address the problem by implementing a continuous replenishment program, under which the responsibility for determining shipment quantities to the distributors would shift from the distributors to Barilla. It describes support and resistance within Barilla approached with the proposal.
3. In-class video: Barilla commercial

Case
Case 5. Barilla Spa

Assignment
Each group prepare a two-page notes answering the following questions:
1. Diagnose the underlying causes of difficulties that the JITD program was created to
solve. What are the benefits and drawbacks of this program?

2. What conflicts or barriers internal to Barilla does the JITD program create? What causes these conflicts? As Giorgia Maggiali, how would you deal with these?

3. As one of Barilla’s customers, what would your response to JITD be? Why?

4. In the environment in which Barilla operated in 1990, do you believe JITD would be feasible? effective? If so, which customers would you target next? How would you convince them that the JITD program was worth trying? If not, what alternatives would you suggest to combat some of the difficulties that Barilla’s operation system faces?

**Group presentation #7: The power of virtual integration**

Group 7 prepares a Powerpoint file and presents for 30 minutes in class.

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**Session 15 (5/26) Supply Chain Integration**

**Learning Objectives**

1. Link supply chain integration with business model
2. Understand how to achieve an agile, adaptable, and aligned supply chain

**Material**

1. Readings: AAA 供應鏈
2. Readings: 建立緊密的供應鏈夥伴關係

**Group presentation #8: 建立緊密的供應鏈夥伴關係**

Group 8 prepares a Powerpoint file and presents for 30 minutes in class.

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**Session 16 (6/2) Business Transformation through IT**

**Learning Objectives**

1. Understand IT-enabled operations and service
2. Understand top management’s leadership role in transformation

**Material**

1. Readings: Making business sense of the e-opportunity
2. Case 6: OTIS Elevator

This case focuses on a major transformation of Otis Elevator's infrastructure. Led by the CEO, this transformation represents a remarkable long-term reengineering of all the processes of the firm to drive its operating costs down and service image up. The transformation is the continuation of a process that has been going on for more than 20
years.

3. In-class video: An interview with George David
4. In-class video: An interview with Ari Bousbib

Case
Case 6. OTIS Elevator

Assignment
Each group prepare a two-page notes answering the following questions:

1. How hard do you think installing Otisline was in 1990? (be sure to look at the enclosed Organizational Chart)

2. The IT tools being used by Otis in 2004 are simply – database, workflow software, intranets and extranets, email – but the benefits appear to be extraordinary. How can this be?

3. An Otis manager states in the case that “To achieve continuous transformation, the e*Logistics program makes sure the business process change sticks. At first, business executives saw process improvements from SIP, but after even just a few employee left, benefits fell off and became inconsistent. Within the e*Logistics program, best practices from SIP are baked into the organization and institutionalized to achieve the continuous transformation. “How do the system that comprise the e*Logistics program bake in an institutionalized best practice”?

Group presentation #9: Making business sense of the e-opportunity
Group 9 prepares a Powerpoint file and presents for 30 minutes in class.

Session 17 (6/9) Final Examination
The final exam will be an in-class, open-book, case-based written exam.