

Global Operations Strategy

Management 240G-1, 240G-2

Winter 2001

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Class hours: Thursday 9-12noon (Section 1, MBA)

Saturday 1.30-4.20pm (Section 2, FEMBA)

Office hours: "open door" policy, by appointment, and immediately after class.

Course description

Content:

Nobody will dispute the fact that operations are becoming increasingly international or even global in nature. Less clear, though, is what this actually *means* for operations. Drivers of globalization include increased competitiveness through offshore manufacturing and increased sales by expanding into new markets, but the associated opportunities and challenges are totally different and highly industry-dependent. Clearly, the issues facing a hi-tech firm are different than those facing a global consulting firm, software is a different ballgame than textile, etc.

"Global operations" can refer to, among others, global sourcing, to having manufacturing or service or R&D facilities world-wide, or to supplying global markets, each of which have very different ramifications:



global sourcing

- dealing with foreign suppliers
- managing international logistics
- managing risk

global manufacturing

- facility location
- coordinating networks of plants
- coordinating networks of R&D facilities
- operations in other countries

global distribution

- local content regulations
- managing global distribution
- managing risk

In this course we will study a range of industries, examine in which way each industry is international, what the corresponding challenges are, and how these challenges can be dealt with. Deliberately including a wide range of industries has two advantages: it provides students with the broad background that is especially valuable in consulting, and it allows us to discuss whether successful best practices in one industry may be valuable for others. A group project will be an important part of the course, and the course should be seen as an opportunity for students planning to join (or act as consultant to) an international firm to explore the industry issues they have a special interest in.

Course overview (UNDER REVISION):

	<i>Case</i>	<i>Industry</i>	<i>Issues</i>	<i>Location</i>
1	<ul style="list-style-type: none"> HP Singapore 	<ul style="list-style-type: none"> hi-tech 	<ul style="list-style-type: none"> international R&D analyzing global networks of facilities maquiladora facilities 	<ul style="list-style-type: none"> Singapore, Canada Mexico
2	<ul style="list-style-type: none"> Intercon International 	<ul style="list-style-type: none"> electronic components 	<ul style="list-style-type: none"> facility location exchange rate risk international tax planning 	<ul style="list-style-type: none"> Korea, Brazil, Europe
3	<ul style="list-style-type: none"> Kodak Business Imaging Systems Division 	<ul style="list-style-type: none"> microfilm products 	<ul style="list-style-type: none"> relocating manufacturing abroad, offshore production exchange rate risk wage rate uncertainty 	<ul style="list-style-type: none"> US, Malaysia, Mexico, Taiwan, etc.
4	<ul style="list-style-type: none"> HCL America Li & Fung (Trading) Ltd. 	<ul style="list-style-type: none"> software textile 	<ul style="list-style-type: none"> offshore manufacturing arbitrage networks international sourcing 	<ul style="list-style-type: none"> India, US, China, Asia
5	<ul style="list-style-type: none"> Chandler Home Products Tektronix: ERP Implementation 	<ul style="list-style-type: none"> household products 	<ul style="list-style-type: none"> economies of scale rationalization of plant networks global ERP 	<ul style="list-style-type: none"> Europe global
6	<ul style="list-style-type: none"> Freeport Indonesia 	<ul style="list-style-type: none"> mining 	<ul style="list-style-type: none"> environmental management managing operations in developing countries managing political risks 	<ul style="list-style-type: none"> Indonesia
7	<ul style="list-style-type: none"> Applichem Booz-Allen Hamilton 	<ul style="list-style-type: none"> chemicals consulting 	<ul style="list-style-type: none"> international sourcing productivity, benchmarking knowledge management sharing best practices 	<ul style="list-style-type: none"> Germany, Canada, Venezuela, etc. global
8	<ul style="list-style-type: none"> VW de Mexico Shanghai Volkswagen Pellton International 	<ul style="list-style-type: none"> automotive 	<ul style="list-style-type: none"> supplier network development managing operations in emerging economies creating and managing customer/supplier partnerships 	<ul style="list-style-type: none"> Mexico, US China, Europe
9	<ul style="list-style-type: none"> Polaroid 	<ul style="list-style-type: none"> photographic products internet 	<ul style="list-style-type: none"> (re)designing distribution and logistics networks supply-chain management e-commerce, B2B 	<ul style="list-style-type: none"> Europe
10	Project presentations			

Method:

The course is largely based on *discussion of cases* (some with videos) from around the world, set in Europe, America, and Asia, and selected from the collections of Harvard Business School, INSEAD, Keio University, and elsewhere; with one or two exceptions, all cases are from the 1990s. Each session will focus on one or two cases on a particular topic and will cover, among others, the following industries: electronics and technology, automotive, consulting, software, textile, chemicals, consumer products, and health care.

A *group project* will be a major component of the course. Each group will choose a company and study a specific, well-defined question related to international operations facing that company.

In addition, the course includes a *1-day trip to a maquiladora* (foreign-owned assembly operation just across the border in Mexico). In past years, we visited a Sony TV assembly facility, Orbis (a full-service electronics assembly subcontractor), ABT de Mexico (producer of surgical gloves), COBE Renal Care, and HITACHI, all in Tijuana, and facilities of International Rectifier in Temecula (California) and Tijuana. Several guest speakers have tentatively agreed to talk about their experiences, in international telecoms and international supply-chain software. ???

Finally, one or more *guest speakers* will be invited, particularly to cover emerging issues in fast-changing industries such as e-commerce and telecommunications.

Grading

There will be no final exam. The final grade will be determined as follows:

Case presentations:	20%	(group presentation)
Assignments:	20%	(2 cases will have small, focused questions)
Case write-ups:	10%	(1 individual write-up, on a case of your choice)
Class participation:	20%	
Group project:	30%	(report and presentation)

Case presentation and class participation:

Some sessions will kick off with a group presentation on the main case(s) for that session; the format will generally be that of a group of consultants presenting their recommendations to their client. The “clients”, of course, are the rest of the class. In the second half of those sessions we will step back and address the broader context of the case, based on the additional cases and readings; I will act as discussion leader for that part. In other sessions, we will not have group presentations but only discuss cases in the “traditional” way.

This means that the following preparation is required: if there is a group presentation, everybody should have prepared the session’s main case(s) in enough detail to be able to act as “client” and ask penetrating questions; you should also read the other cases and readings well enough to be able to participate in an intelligent discussion about the key issues.

Assignments:

Two cases will have brief assignments for all participants, both counting for 10% each of the final grade. The questions are specified in the syllabus below; use the spreadsheet tools provided to you (at I:\ccorbett\international_ops), play around with them, analyze some relevant scenarios, and make a recommendation and defend it. Your write-up should not exceed 4 pages of text plus any exhibits.

Case write-ups:

The individual case write-up counts for 10% of the final grade. You may choose any two cases from the course for your analysis, as long as they are not in the same session and not the case your group is already presenting. The write-up will be due at the beginning of the session in which we discuss that case. In the write-up: briefly analyze the case and answer the case questions, as you are by now used to doing, but you should also add a page on “What do I learn from this? Where else can I apply these learnings? What obstacles might there be? Etc.”, at the end of the report. Feel free to focus on your current or future job or internship or previous work experience for this latter part of the report. The write-ups should be no more than 4 pages text (double-spaced) plus any exhibits, plus 1 page for the “what do I learn” section. The analysis should be very short and to-the-point, and carefully justified with whatever analytical or conceptual framework or additional data you feel is appropriate. Feel free to use additional relevant information from your own experience about the industry, the company, and/or the geographic region (whichever is most relevant for that case) than is provided in the case itself.

Group project:

Each group (3-5 members) chooses a company to work with, so try to form groups with a common interest. The first part of the project report should give a broad overview of the key issues related to international operations facing that company. It should answer questions such as:

- In what respect is this industry / company international? Are suppliers or upstream facilities located abroad? Are manufacturing or service facilities located in several countries? Is the product or service delivered to customers located abroad?
- What is the driver behind this internationalization? Access to cheap labour? Access to scarce resources? Proximity to markets? Expansion into new markets? Economies of scale? Hedging against uncertainty?
- What are the main challenges related to this internationalization? Long lead times? Logistics and distribution cost and complexity? Building relations with foreign suppliers and customers? Managing uncertainty due to exchange rate risk, political instability, or other causes? Coordinating geographically dispersed facilities? Exchange of best practice between regions? Meeting local content regulations? Transfer of knowledge into less developed regions? Location of facilities?

To structure this first part of the analysis, you can use the frameworks offered in Yip’s *Total Global Strategy*. Chapter 9 in particular offers a list of ways of measuring industry drivers of globalization, which is a useful starting point for understanding the nature of globalization of the industry you chose and therefore the specific challenges posed.

The second part of the project will focus on a specific problem, preferably one suggested by the company itself, and your analysis and recommendations on that problem. Analyses based on

quantitative data are strongly preferred over purely anecdotal analyses, so it is important to select a company sponsor from which you will be able to obtain real data.

For instance, let's say you chose a hi-tech firm which had decided to manufacture in Southeast Asia for cost reasons and for which the key issues were short product life cycles and long product development and manufacturing lead times. The report should then answer questions as: How large is the cost differential from manufacturing abroad? What is the company doing to reduce time-to-market? How are they reducing manufacturing and shipping lead time? What tools or concepts or methodologies have they used? What results have they achieved? How are they affected by the recent economic and currency turmoil in the region?

You should also briefly step back and ask: "what can we learn from this problem?" I.e., if you chose to study Hewlett-Packard's approach to postponement of localization in DeskJet printer manufacturing, you should answer questions as: Where else could this approach be used (other companies, other industries)? What obstacles might you face? How would you overcome these?

There is no hard rule on report length; take 20 pages (10 for the first part, 10 for the second part) and 3-4 for the "what can we learn" part, plus figures, as a rough guideline, but as always quality (insights, structure, breadth) comes before quantity.

The last session of the course will be devoted to these project presentations. Each group will hand in a 1-page summary of their project the class before, to stimulate class discussion in the last session. Approximately half way during the course we will briefly evaluate each group's progress.

Readings

All required materials for the course are contained in the course pack or will be handed out in class.

Required readings:

- Course pack; additional materials will be handed out in class.

Suggested background readings:

- *Total Global Strategy*, George Yip, Prentice-Hall, 1995. (This book is available in paperback and is cheap, I strongly recommend it, even if we do not follow it closely in class.)
- *Global Operations and Logistics*, Dornier, Ernst, Fender and Kouvelis, John Wiley, 1998. (This book is quite good, the best text I have seen on global operations; it has a much less strategic perspective than I prefer for this course so it is not required; in those instances where we do follow the book, the discussion in class will be sufficient.)
- Any good textbook on operations management, eg. *Production and Operations Management*, Chase & Aquilano, Irwin, or *Operations Management*, Schonberger & Knod, Irwin.
- *The Wall Street Journal*, *The Financial Times*, *Business Week*, *The Economist*.

The first two books are on reserve in the library.

Outline

UNDER REVISION !!!

Thursday April 6 / Saturday April 8

<u>Session 1</u>	Industry:	<i>hi-tech (Hewlett-Packard printers)</i>
	Issues:	<i>international product development analyzing global networks of facilities maquiladora facilities</i>
	Location:	<i>Singapore / Canada; Mexico</i>

Introduction to International Operations Management; discussion of your learning objectives.

Main case: “Hewlett-Packard: Singapore (A)”. Parts (B) and (C) will be handed out in class.

In the over 20 years since Hewlett-Packard (HP) set up a manufacturing site in Singapore to produce calculators, HP has invested managerial talent and resources in developing its licensor into a technology development partner. The case details the growth of high-volume manufacturing capabilities and the setting up of an R&D facility. Various projects are described in which Singapore contributed an increasing amount of skill, leading up to an abortive attempt to completely co-develop a new printer. Singapore now feels ready to develop a printer on its own for the Japanese market, and the case poses the question of whether or not it is ready to do so. There is also an issue of whether the developers understand the Japanese market well enough to proceed.

- Why did the Alex project fail?
- Should HP-Singapore enter the Japanese market with the DeskJet 500J printer?

We will discuss this case in the traditional way.

Readings:

- “Making the Most of Foreign Factories”, Kasra Ferdows, *Harvard Business Review*, March-April 1997.
- “Manufacturing in Mexico”, Martha Celestino, *World Trade Online*, July 1999.
- “Maquiladora-ville”, D. Darlin, *Forbes*, May 6, 1996.
- “The Border”, *Business Week*, May 12, 1997.
- “Survey: Manufacturing”, *The Economist*, June 20, 1998.

Background readings (optional):

- Yip, Chapters 1-2.

Thursday April 13 / Saturday April 15

<u>Session 2</u>	Industry:	<i>commercial electronic components</i>
	Issues:	<i>facility location exchange rate risk international tax planning</i>
	Location:	<i>Korea / Brazil / Europe</i>

Main case: “Intercon International (A)”.

A fast growing supplier to the electronics industry must choose among three proposals for expanding its international manufacturing capacity. The first involves a new plant in Korea; the second, a new plant in Brazil; and the third, a new plant in France or Germany. Not enough cash is available to do all three, yet all look attractive.

- What should Peter Davis, Executive Vice President of Intercon Intercorporated, in charge of its International Division, do?

Prepare the Intercon International case carefully enough for a good discussion. Make a recommendation to Peter Davis and be prepared to defend it. Three groups will each give a brief presentation, to Peter Davis and his team, pitching the case for Korea, Brazil, and Europe respectively. After the presentations, the rest of the participants will be asked to vote on which proposal to accept (and be prepared to defend your choice!).

After the case discussion, we will talk about the impact of taxes on facility location, based on the following readings.

Readings:

- “Volatile exchange rates can put operations at risk”, D.R. Lessard and J.B. Lightstone, *Harvard Business Review*, July-August 1996.
- “Note on Operating Exposure to Exchange-Rate Changes”, HBS, 1987.
- Chapter 13 (background only) in *Taxes and Business Strategy: A Planning Approach*, M.S. Scholes and M.A. Wolfson, Prentice Hall, 1992. (Don’t worry if the book chapter seems a little dry; I will give a brief lecture on multinational tax planning.)

Background readings (optional):

- Yip, Chapter 5.

Video: Peter Davis.

Thursday April 20 / Saturday April 22

Session 3 **Industry:** *microfilm products*
Issues: *relocating manufacturing abroad, offshore manufacturing*
uncertainty in exchange rates, wage rates, etc.
quantitative analyses for location decisions
Location: *Rochester (NY), Malaysia, Mexico, Thailand, etc.*

Main case: “Kodak Business Imaging Systems Division”, and “ROI Model Note”.

Describes Kodak's decision regarding a manufacturing site for some of its products. Compares several types of products (with different cost structures) and several worldwide locations (with different characteristics). Provides a framework (model) for comparing and evaluating the options. Identifies relevant factors in evaluating manufacturing sourcing decisions and illustrates how the complexities can be addressed and handled effectively.

- Compare the approach Keith and Andy took to evaluating Kodak's international manufacturing location decision with that usually taken by Kodak BISD managers.
- Why are Kodak managers considering moving the manufacturing of their microfilm readers and printers abroad?
- Keith and Andy considered a number of sensitivity analyses of international ROI and several important strategic issues before making their recommendation to Kodak managers. They concluded that Kodak should not transfer the manufacturing of the microfilm readers and printers away from Rochester. Do you agree? Why (not)? On what issues would you base your recommendations? What questions would you raise if you were manager at Kodak?

Use the Excel / Crystal Ball spreadsheet model to support your analysis of the case. ***Everybody must turn in a short analysis of this case, answering the following questions:***

- What recommendation would ***you*** make to Kodak management, and why?
- What would have to change (eg., wage rates, exchange rates, etc.) before you would reconsider that decision?

The “ROI Model Note” has also been included in the class pak. It describes the structure of the spreadsheet and explains the expressions used; you do not need to study the note in any detail, it is included only as background to explain how the spreadsheet works. Also, there will be some discrepancies between the numbers in the examples in the ROI Model Note, the case, and the spreadsheet you have, but rest assured, they are (at least in part) due to errors in the Model Note rather than your spreadsheet!

Readings:

- “Seeding plants for a global harvest”, A. Bartmess and K. Cerny, *McKinsey Quarterly*, 1993, no. 2.

Thursday April 27 / Saturday April 29

<u>Session 4</u>	Industry:	<i>software and textile</i>
	Issues:	<i>offshore manufacturing arbitrage networks international sourcing</i>
	Location:	<i>India, US, China, Asia</i>

First case: “HCL America”.

Shows how a custom software programming company takes advantage of differences between the United States and India in the cost of skilled labor (software engineers) to give its customers rare expertise and lower prices. Asks students to examine the company from its customers' point of view. HCL America offers customers three ways to purchase its services. The company can send its engineers to work on customers' premises on a temporary basis; do programming projects at its U.S. facilities, or send work to its "software factories" in India. A range of factors, including cost, determine which of these methods is best for a particular customer's project. Customers who send work to India often save 50% off the costs of doing the work in the United States. The decision point presents a potential customer, Sateesh Lele, who must decide whether to hire HCL America or a competitor, or use his own staff, for a particular project. If he hires HCL America, he must decide between three methods of work--on-site, in the United States, or in India.

- How should Sateesh Lele allocate the remaining work on Telogy's systems integration project: to Telogy's own staff, to HCL America engineers working on-site at Telogy, to engineers at HCL America facilities in Sunnyvale, California, or to HCL America staff in India through outsourcing?
- What kind of business is HCL America? How does it create value?
- How will HCL be affected by recent developments in IT?
- What should HCL America's executives do to reach their goal of increasing revenues from \$22 to \$60 million in two years while making a profit?
- Does attrition among software engineers pose a serious problem for HCL America? If so, how should the company address it?

A group will present this case. In the presentation, answer Lele's immediate question, but also provide a strategic assessment of HCL, and give recommendations on how they can reach their revenue goals. Also, give a brief assessment of what has happened with HCL and its competitors since the case was written and explain these developments.

Second case: “Li & Fung (Trading) Ltd.”

Li & Fung is one of the largest trading companies specializing in sourcing low-cost, labor-intensive consumer goods from suppliers throughout east Asia. Its main work is to connect Asian factories with US and European retailers and manufacturers who have their own designs for merchandise and need them turned in to physical product.

- How does Li & Fung create value for its customers and suppliers? How do international differences in labor costs play into this value?
- How will Li & Fung be affected by the emerge of B2B e-commerce sites?
- Should Charles Ho (Li & Fung's HX division manager) send Classique's order to Qingdao, China, or the Philippines? If he sends the order to China, should he ask the HV division to supervise it? If he sends it to China and has his own staff supervise it, how many visits should they make to the factory --- two, three, or four? Consider the division manager's personal interests, as well as those of the customer and of Li & Fung.
- Assess Li & Fung's internal structure, including its organizational structure and the ways in which it motivates its employees. How does it align employees' interests with both customer satisfaction and Li & Fung's financial performance?
- Should William Fung follow Danny Lau's recommendation to extend the restructuring experiment to all soft goods divisions?

We will discuss this case in the traditional way.

Prepare both cases carefully. In class, “volunteers” will be selected to give an impromptu 2-minute pitch to potential investors for these two business models, the rest of you will be asked to decide which of the two (Li & Fung or HCL) you would rather invest in and why.

Readings:

- “Global outsourcing of information processing services”, U.M. Apte and R.O. Mason, Chapter 6 in *The Service Productivity and Quality Challenge*, edited by Pat Harker, 1995, Kluwer.
- “The office farther back: business services, productivity, and the offshore back office”, M.I. Wilson, Chapter 7 in *The Service Productivity and Quality Challenge*, edited by Pat Harker, 1995, Kluwer.

Background readings (optional):

- Yip, Chapter 4.

Thursday May 4 / Saturday May 6

<u>Session 5</u>	Industry:	<i>home products / high tech</i>
	Issues:	<i>economies of scale rationalization of production networks managing global networks through ERP</i>
	Location:	<i>Europe, global</i>

Main case: “Chandler Home Products: European Rationalization”

Chandler Home Products sells household and personal care products, with total revenues in excess of \$3 billion. It has six plants, three of which have recently been closed, and they are facing the decision how many more plants to close and to what extent to rely on contract manufacturers.

- What would you recommend to Chandler Home Products?
- What would it take to change your recommendation?

One group will present their recommendation to Chandler’s senior management.

Second case: “Tektronix, Inc.: Global ERP Implementation”

Tektronix is a \$1.3 billion manufacturer of electronic tools and devices. The case explains why and how they decided to implement an ERP (enterprise resource planning) system, and describes the global rollout.

- Did Tektronix need an ERP system?
- What benefits will they reap in the short term? And in the long term? Where do those benefits come from?
- Will the ERP implementation help them respond to the push towards e-commerce?

This case will be discussed in the traditional way, with one difference: we will discuss ERP in a much wider context than just this case. Many of you have experience with ERP (both positive and negative, presumably); be prepared to share your insights into the potential benefits and pitfalls of ERP in a global context.

Reading:

- “Manufacturing’s New Economies of Scale”, M.E. McGrath and R.W. Hoole, *Harvard Business Review*, 1992, May-June.

I am assuming you are somewhat familiar with the principles behind ERP systems; if not, you should definitely spend a few minutes browsing the web for some background information beyond what is contained in the Tektronix case.

Thursday May 11 / Saturday May 13

Session 6 **Industry:** *chemicals*
Issues: *international sourcing*
 productivity analyses, benchmarking
Location: *Germany, Canada, Venezuela, etc.*

Case: “Applichem (A)”.

Applichem has six plants in different countries making the same chemical product. The purpose of this case is to think about what costs are relevant to management in this process industry environment, about how to define a comparison of costs and productivity across plants, and about how it happens that plants in different parts of the world come to have quite different costs of producing the same product. Finally, management can begin to think about what they might do to ensure that productivity improvements made at one plant would be routinely useful for other plants.

- Compare the performance of Applichem’s 6 Release-ease plants.
- Why were some plants “better” performers than others?
- How would you advise Joe Spadaro to configure his worldwide manufacturing system?

Use the Excel / Crystal Ball spreadsheet model to support your analysis of the case. ***Everybody must turn in a short analysis of this case, answering the following questions:***

- What recommendation would ***you*** make to Applichem, and why?
- How does your recommendation depend on exchange rates, wages, etc?

Industry: *consulting*
Issues: *knowledge management*
 sharing best practices
Location: *global*

Case: “Booz-Allen & Hamilton: Vision 2000”.

In 1993, Booz-Allen & Hamilton forsook its previous, highly local organizational structure. It was motivated by a desire to serve multinational clients more effectively and to provide greater value to clients with more localized business by collecting best practices from around the world. Following a plan entitled Vision 2000, the firm created unified staffing pools based on industry and functional (strategy, operations, or information technology) expertise, within each of the three large regions, Atlantic (containing Europe and N. America), Asia-Pacific-Japan, and Latin America. In staffing each client engagement, partners considered all available staff within their regions attempting to provide the best consultants for the project, regardless of where they were located. The firm also redesigned compensation and evaluation methods, segmentation strategy, and staff development programs to fit its more integrated service delivery system. New systems and programs for sharing intellectual capital between consultants increased the firm’s ability to provide value.

- Should Booz-Allen & Hamilton transform its Vision 2000 structure into a truly global structure without boundaries between regions?
- Does Booz-Allen’s Vision 2000 structure provide distinctive value to customers?
- How does the Vision 2000 structure affect Booz-Allen’s consultants? What are the management implications of these effects?
- Does the Knowledge Online system help Booz-Allen serve its clients in such a way that it can substitute for staff mobility? Does it differentiate the firm’s service from its competitors? What problems might arise in implementing the system? Has Booz-Allen anticipated these?

One group will present their recommendations on Booz-Allen's global structure. Many of you will have experience in global consulting firms; in addition to preparing the case itself, you should also be ready to offer your insights and experiences in this area.

Readings:

- "Successful Knowledge Management Projects", Davenport, De Long and Beers, *Sloan Management Review*, Winter 1998.
- "What's Your Strategy for Managing Knowledge?", Hansen, Nohria and Tierney, *Harvard Business Review*, March-April 1999.

Thursday May 18 / Saturday May 20

Session 7 **Industry:** *mining (copper and gold)*
 Issues: *environmental issues*
 managing operations in developing countries
 global manufacturing standards (ISO 9000, ISO 14000 etc.)
 Location: *Indonesia*

Main case: “Freeport Indonesia”.

Freeport Indonesia.

- Describe and evaluate PTFI’s environmental management strategy. Is environment part of the parent company’s general corporate strategy? (See <http://www.fcx.com>.) Has it always been?
- Describe and evaluate PTFI’s treatment of social and cultural affairs in Irian Jaya.
- Would you describe this project as “sustainable”? What criteria would you use to evaluate this claim? Compare how economic rents are being distributed under PTFI’s stewardship with your sustainability criteria.
- Should the Indonesian government allow PTFI to expand?
- Are these issues relevant only for a large-scale operation such as this?

This case will be discussed in the traditional way. In addition to preparing the case, think *carefully* about the lessons from the Freeport experience for other companies.

Readings:

- “Environmental citizenship in Multinational Corporations”, D.A. Rondinelli and M.A. Berry, *European Management Journal*, 2000.
- “Beyond Greening: Strategies for a Sustainable World”, Stuart Hart, *Harvard Business Review*, January-February 1997.
- “An agnostic’s report from the frontline”, C.J. Corbett and D.A. Kirsch, *ISO 9000 + ISO 14000 News*.

Videos: Freeport Indonesia.

Thursday May 25 / Saturday May 27

<u>Session 8</u>	Industry:	<i>automotive</i>
	Issues:	<i>supplier network development manufacturing in emerging economies</i>
	Location:	<i>Mexico, China</i>

First main case: “Volkswagen de Mexico’s North American Strategy (A) + (B)”.

In 1988, Volkswagen (VW) consolidated its North American operations in Puebla, Mexico, after shutting down its plant in Pennsylvania. Volkswagen de Mexico had been in operation since the 1960s, but produced almost exclusively for the Mexican market. In the late 1980s, VW began to restructure the Mexican plant to supply the United States and Canada (which had been importing from Germany) and to maintain its dominance of the Mexican market. The North American Free Trade Agreement put additional pressure on VW to start sourcing in North America. The case traces the history of VW in the United States and Mexico and the company’s strategy in the context of Mexican government regulations, free trade, and a weak presence in the U.S. market.

- What do you think of Volkswagen’s 1987 decision to consolidate production for all of North America in Puebla?
- What does VW have to do to face the new challenges under NAFTA? How does NAFTA change the competitive dynamics of the industry?
- Given these challenges, how well has Josephi done? Are you optimistic about the future of VW de Mexico? What should Josephi do about the labor dispute?

Second main case: “Shanghai Volkswagen”.

Describes the development of a joint venture between Volkswagen and Shanghai Sedan to build Western quality autos in China. Having developed a supplier network capable of delivering quality components, the company now faces a need to expand capacity (demanding rapid expansion of their supplier network). In addition, Volkswagen is under pressure to bring more of the design activity over to China.

- What lessons can we draw from the situations in Mexico and China?

Be prepared to discuss the two cases, especially the learnings we can draw about how to develop supplier networks. Also, many of you will have experiences with manufacturing in developing countries, be prepared to share those.

Readings:

- “Partnerships or Tug of War?”, C.J. Corbett, J.D. Blackburn and L.N. Van Wassenhove, *Sloan Management Review*, Summer 1999.

Thursday June 1 / Saturday June 3

<u>Session 9</u>	Industry:	<i>consumer goods (film products)</i>
	Issues:	<i>distribution networks logistics, supply-chain management e-commerce and international operations</i>
	Location:	<i>Europe</i>

Main case: “Polaroid Corporation: European Distribution System”.

This case describes Polaroid’s distribution operations in Europe in 1990. In the late 1980s Polaroid senior management in the US proposed reconfiguring the firm’s European distribution network from a system of twelve decentralized warehouses to a centralized distribution system in which all inventory for European wholesalers, retailers, and industrial customers would be held in Polaroid’s Dutch distribution center. Most subsidiary general managers opposed the proposal, as did Polaroid’s European marketing organization. The case describes several distribution alternatives Polaroid considered in 1990, including (i) direct distribution to all European wholesalers, retailers, and industrial customers from the Dutch distribution center; (ii) a modified form of direct distribution from the Dutch distribution center and one or two regional satellite distribution centers, and (iii) hiring a third party logistics organization to warehouse and distribute all of Polaroid’s products in Europe. The case provides an overview of changes in the European retailing and distribution industries at the beginning of the 1990s, with a specific focus on the different practices and service expectations of various retail channels in different European countries.

- How do Polaroid’s distribution needs vary by subsidiary in Europe? What are the implications of these differences?
- Should Polaroid implement a direct distribution strategy in Europe? If not, what alternative do you recommend?
- How should your recommendation be implemented? What implementation challenges do you foresee? How would you address those challenges?
- What other changes do you recommend Polaroid make to its European logistics system?

One group will present their recommendations to Polaroid.

After the case discussion, we will spend some time thinking about the implications of the emergence of e-commerce for global operations. For instance, how will the emerging B2B e-commerce sites change global sourcing practices? How will they affect global logistics? What opportunities are there for B2B services to assist international companies? Readings for this session may be handed out in class.

Thursday June 8 / Saturday June 10

<u>Session 10</u>	Industry:	<i>you choose</i>
	Issues:	<i>you choose</i>
	Location:	<i>you choose</i>

Presentation of group projects.

Charles J. Corbett

Charles J. Corbett is an assistant professor of operations and technology management at the Anderson Graduate School of Management at UCLA. He received a Drs. (MSc equivalent) degree in operations research from the Erasmus University in Rotterdam and a MSc and PhD in Production and Operations Management from INSEAD in Fontainebleau, France.

During his dissertation research, Dr. Corbett acted as consultant for a multinational chemical firm, for which he co-developed and -facilitated internal training programmes and joint supplier-customer workshops in several European countries and in the US. He has visited manufacturing plants and consulting firms throughout Europe, the US, Latin America, and Asia. He has acted as consultant to Solaris (a division of Monsanto), and has been engaged in projects with PRTM (a consulting firm specializing in, among others, supply-chain management), Disney, and other local and international firms. His current research focuses on international supply-chain management, on environmental issues in international business, and on the impact of intermediation on supply chains.

He has published in academic and business journals in several countries, including *Sloan Management Review*, *California Management Review*, *Operations Research*, *Management Science*, *European Journal of Operational Research*, *the Journal of the Operational Research Society*, *Environmental and Resource Economics*, *L'Impresa* and *L'Impresa Ambiente (Italy)*, *Estrategia Financiera (Spain)*, *Bedrijfskunde (The Netherlands)*, and *Het Ingenieursblad (Belgium)*; one paper was awarded second prize by GEA-L'Impresa. Dr. Corbett is a member of the editorial board of *Manufacturing and Service Operations Management*, and has frequently acted as referee for journals as *Management Science*, *Production and Operations Management*, *Interfaces*, *European Journal of Operational Research*, *IIE Transactions*, and *ORSA Journal on Computing*.

Before joining the Anderson School, Dr. Corbett was Visiting Scholar at the Owen Graduate School of Management at Vanderbilt University, where he taught guest classes on international supply chain management and operations strategy. He also regularly teaches a module on international supply chain management at the École des Mines de Nantes and at ESC Reims in France, and is frequently invited to present seminars or teach short courses at institutions and conferences worldwide.

Dr. Corbett is a citizen of the United Kingdom and of the Netherlands, has lived in France for 5 years, and is currently a resident alien in the United States.