

OID 673 Global Supply Chain Management
Monday/Wednesday 10:30am-11:50am and 1:30pm-2:50pm

Course Outline and Assignments

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Access to labor in previously closed countries (China being the biggest example) and new information technology that dramatically reduces the cost of communication has accelerated the outsourcing and offshoring of manufacturing that has been going on for some time. This leaves companies pondering what to do in house, what to outsource, where to produce and how to manage a supply chain that usually involves production in multiple countries that are often halfway around the world from the market.

Nowadays, it is not uncommon for a company to create different business processes – retail channels, marketing plans, localized product and service offerings, and manufacturing and logistics operations – for different markets. On the other hand, as different outsourced providers that specialize in specific operational functions are developed, companies can also leverage these providers, which are often geographically dispersed, to support global markets. Hence, the company itself may develop a new product in the U.S., use an ODM (Original-Design Manufacturer) in Asia to work out the design specifics, enlist a contract manufacturer based in China for assembly and test, make use of a global third-party logistics service provider to take care of customs clearance, freight forwarding and transportation of the product to all over the world, and finally, employ a local distributor to get the product through the local channel and to customers.

Many questions arise in the management of such global supply chains, including

- Which design and production activities to do in house and which to outsource?
- Where to locate various activities around the world?
- How to forecast the many factors that influence these decisions, including inflation in cost factors such as labor and freight and the likelihood of future government regulation or political instability?
- How to keep the supply chain flexible so as to adapt to the factors listed above?
- How to manage a geographically disbursed supply chain, including what relationships to have with vendors to insure not only low cost but high quality, flexibility, safety, humane labor practices and respect for sustainability of the environment?
- How do these decisions intertwine with country political and economic considerations?
- How should companies react to developments like Brexit in the UK and tariffs in the U.S.?
- What opportunities are created by new technologies like blockchain and AI?

This course will study the design and management of global supply chains, with a particular focus on the issues listed above. The industries covered include auto, footwear and apparel, furniture, pharmaceuticals, and toys.

CASES AND GUEST SPEAKERS

The course will be highly interactive, using case discussions in more than half of the classes. We will have senior supply chain executives in a number of the class sessions. Sometimes the guests are protagonists in the case being discussed that day and will serve as a resource during our class discussion and make remarks and answer questions for about 20-25 minutes at the end of class. Other times, the entire class will be devoted to a discussion lead by the guest about their company.

Industry guests will be available between the morning and afternoon classes for an informal lunch with a group of us. We can accommodate up to 30 students at each lunch. Bios of visiting executives and a lunch sign up sheet are available on the course web site. Lunch will be provided, and we will meet in Huntsman 540/41, the OID conference room.

COURSE MATERIALS

Cases and course readings are contained in the course pack available from Study.Net, or in a few cases, as noted in the course outline, in the Cases and Readings folder on the course website. In addition, copies of key overheads, readings and other notes of interest will be distributed in class during the course and available for download on the course website. The website has a folder dedicated to each class that contains materials relevant to that class.

GRADING

Grades are based one-third each on (1) class participation (2) individual write-ups of the discussion questions for 3 of the class sessions and (3) a course paper.

Class Participation

Most managers spend little time reading and even less time writing reports. This is especially true for managers in operations-intensive settings. For this reason, the development of speaking and listening skills is given a high priority in this course. The classroom should be considered a laboratory in which you can test your ability to present your analyses and recommendations clearly, to convince your peers of the correctness of your approach to complex problems, and to illustrate your ability to achieve the desired results through the implementation of that approach. Some of the criteria that we will use to judge effective class participation include:

- Is there a willingness to participate? We especially encourage you to ask questions if an idea or technique is not clear.
- Do the comments show clear evidence of appropriate and insightful analysis of the case data?
- Are the points made relevant to the current discussion? Are they linked to the comments of others? Do comments clarify and highlight the important aspects of earlier ideas and lead to a clearer statement of the relevant concepts and issues?

I grade class participation immediately after each class based on the extent to which comments reflect preparation, analysis, and thoughtfulness. Although this process is subjective, it is highly reliable, as your grade is based on lots of data (13 observations).

We will also take attendance in many classes. Obviously, step one in class participation is to show up; step two is to speak up.

Individual write-ups of class discussion questions

You should submit a 2-3 page (single spaced, and font of 10 points or greater) write up of the discussion questions for 3 of the class sessions in which a case is discussed and which are identified on the schedule below with an asterisk. Classes 1, 2, 4, 7, 8, 9, 11, 12 and 13 are eligible for an individual hand in write-up.

Write-ups should be submitted via the "Assignments" section of Canvas by 10:30am (**even if you are in the 1:30 class session, you need to submit your write-up by 10:30**) on the day of the class in which the case is discussed (**no late submissions accepted**).

There is no way to “catch up” if you miss the opportunity to complete three assignments on time. If you wish to submit more than 3 write-ups, we'll count your best three towards your grade.

Individual assignments are given grades of 1 (low), 2 or 3 (high). You will not receive detailed and specific feedback on these individual assignments. However, you will receive a general memo outlining common strengths and weaknesses and generally how the write-ups were graded. You can discuss the cases with classmates as much as you would like, but the write up should be your own work.

Here are some considerations when you are preparing your write-ups:

- Base your analysis on information from the case (text and exhibits), but don't simply regurgitate case facts.
- In some of the cases there may have been recent developments that can give hints about whether certain decisions were sound or not. It's ok to reference those, but you cannot build your analysis exclusively on a future that, at the time of the case, was still unwritten.
- It is fine to complement your analysis with your own experience, but that should not be at the expense of key ideas of the case.

Course paper

A paper of about **3,000 words of text** and some exhibits is due at the end of the course. Please include word count when you submit your paper. Papers can be done in teams of 2 or 3 students, although the length guidelines would be proportionately greater for team papers, **4,500 and 6,000 words of text** respectively for 2 and 3 person teams. Teams can span the 10:30 and 1:30 sections of the course.

The paper can deal with a specific company and how they have designed and managed their supply chain, compare two or more companies in their approach to supply chain management, or delve more deeply into any issue within the realm of the course. The research on the paper should include scanning the business press, information sources on particular companies and annual reports.

Please submit a paper proposal, no more than one page long, by 5pm November 6. The proposal should list the topic you plan to study and the research you'll conduct for the paper. I'll then provide comments on your proposal. The final paper is due 9am December 18. The paper proposal and paper should be submitted over the course website, in the "Assignments" section.

In writing your paper, be sure to respect the Wharton and Penn rules on plagiarism; see the Wharton MBA Code of Ethics on page 5 and 6 of the MBA Resource Guide http://spike.wharton.upenn.edu/mbaprogram/publications/mba_resource_13-14.pdf and Penn's Code of Academic Integrity (<http://www.upenn.edu/academicintegrity/index.html>).

Date	Class	Topic or case	Guest(s)
21 Oct	1*	Introduction to the course. Crocs - Creating and Leveraging a Flexible Supply Chain	
23 Oct	2*	IKEA's Global Sourcing Challenge: Indian Rugs and Child Labor (A)	Pernille Spiers Lopez, former President and CEO, IKEA North America
28 Oct	3	Noi Solutions global sourcing	Saima Chowdhury, CEO and Founder, Noi Solutions
30 Oct	4*	Roche & Tamiflu	Stephen J. Gluckman, MD, Medical Director, Penn Global Medicine, Professor of Medicine at the Hospital of the University of Pennsylvania; Anita Patel, PharmD, MS, Senior Adviser and Lead for Pandemic Medical Care and Countermeasures, Influenza Coordination Unit, Centers for Disease Control and Prevention
4 Nov	5	Supply Chain Flexibility	
6 Nov	6	PVH global supply chain PAPER PROPOSAL DUE BY 5PM	Bill McRaith, Chief Supply Chain Officer, PVH Corporation
11 Nov	7*	New Balance	Duncan Scott, Vice President for External Products, New Balance
13 Nov	8*	Luen Thai Holdings, Inc.	Kelvin Su, Executive Vice President, Corporate Innovation & YTI Cambodia, Luen Thai International Group
18 Nov	9*	Ashmark Corporation and supply chain risk management	Dana Martin, Product Manager, Elementum SCM
20 Nov	10	Patagonia	Doug Freeman, COO, Patagonia
25 Nov	11*	Unsafe for Children: Mattel's Toy Recalls	
2 Dec	12*	VF Brands	
4 Dec	13*	BMW Mini: Big Decisions under the Brexit Cloud	
9 Dec	14	Supply Chains at an Inflection Point: The Search for Low Cost Production. Review of Course.	
18 Dec		FINAL PAPER DUE BY 9am	

* Candidate for individual write-up

DETAILED DESCRIPTION OF COURSE SESSIONS

Class 1

21 Oct

Introduction to the course. Creating and Leveraging a Flexible Supply Chain

This class will review current issues in global supply chain management, provide an overview of the course and discuss our first case. The case will let us understand how flexibility can be created in a global supply chain, and the value it provides.

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

Questions:

- 1) What determines whether Crocs produces themselves or outsources?
- 2) What factors determine where a product is produced and distributed from?
- 3) Supply chain flexibility. "We are not going to say "no" to demand." What actions does Crocs take to achieve this?
- 4) How do they forecast product demand?
- 5) What's their thinking on setting inventory?
- 6) What are the strengths and weaknesses of their supply chain?
- 7) Given a finite number of feet in the world, the high growth rate Crocs is experiencing must inevitably slow. How should their operations change if they were growing at only 5% per year?

Class 2

23 Oct

Global Supply Chains and Child Labor Risks

This case traces the history of IKEA's response to a TV report that its Indian carpet suppliers were using child labor. IKEA's growth strategy depended on close relationships with suppliers in developing countries and IKEA's strong culture and values included a commitment "to create a better everyday life for many people." In response to regulatory and public pressure, IKEA developed a set of environmental policies that grew to encompass a relationship with Greenpeace and WWF on forest management and conservation. Then, in 1994, Marianne Barner, a newly appointed IKEA product manager, is surprised by a Swedish television documentary on the use of child labor by Indian carpet suppliers, including some that supply IKEA's rugs. She immediately implements a strict

policy that provides for contract cancellation if any IKEA supplier uses child labor. Then Barner is confronted by a German TV producer who advises her that he is about to broadcast an investigative program documenting the use of child labor in one of the company's major suppliers. How should she react to the crisis? How should the company deal with the ongoing issue of child labor in the supply chain?

Case: IKEA's Global Sourcing Challenge: Indian Rugs and Child Labor (A)

Guest: Pernille Spiers Lopez, former President and CEO, IKEA North America

Questions:

- 1) On the first floor of Huntsman Hall there is a wall display giving the history of Wharton. What do you see related to child labor?
- 2) How would you define child labor? What regulations do you think countries should have with respect to child labor? What does doing what is “in the best interest of the child” imply?
- 3) Why does IKEA care about eliminating child labor?
- 4) How should Marianne Barner respond to the invitation for IKEA to have a representative appear on the upcoming broadcast of the German video program?
- 5) What actions should she take regarding the IKEA supply contract with Rangan Exports?
- 6) What long-term strategy would you suggest she take regarding IKEA’s continued operation in India? Should the company stay, or should it exit? (Be prepared to describe the impact of such a decision and how you would manage it.)
- 7) For those recommending that IKEA continue to source carpets in India, would you suggest that she:
 - a. Continue IKEA’s own monitoring and control processes or sign-up to Rugmark?
 - b. Continue to focus only on eliminating the use of child labor in IKEA’s supply chain or engage in broader action to address the root causes of child labor as Save the Children is urging?

Class 3
28 Oct

Noi Solutions and global sourcing

In this class session we will hear from Saima Chowdhury, founder and CEO of Noi Solutions and also a graduate of the Wharton MBA program. Noi Solutions links product brands with production suppliers and this class will let us understand how that process works. In preparation for class, please visit <http://www.noisolutionsllc.com>. Think about if

you were developing a new product, how would you find a supplier to make your product. Would Noi Solutions provide the capabilities you would need?

Guest: Saima Chowdhury, CEO and Founder, Noi Solutions

Class 4

30 Oct

Health Care Supply Chains

The class focuses on the challenges of Roche maintaining a supply network for a global influenza pandemic response initiative based on its antiviral drug Tamiflu. The Roche group is a 40 billion CHF company consisting of a pharmaceutical division and a diagnostic division. The company's antiviral drug Tamiflu dominates the market for prevention and treatment of seasonal influenza (flu). Tamiflu, however, could also play an important role in responding to the first wave of a pandemic caused by a particularly harmful strain of the influenza virus A. Tamiflu was designed to be effective against any strain of Type A or B influenza. Thus, there was the potential to establish a preparedness plan based on creating a stockpile of the drug in conjunction with an appropriate plan for distribution to the affected population. The use of Tamiflu had been endorsed by the WHO as a first line of defense in such a crisis and would allow the world to respond immediately, rather than having to wait for development of a vaccine that had limitations in its effectiveness.

Managing supply is particularly challenging for three reasons. First, demand for stockpile quantities is spiky and uncertain, and governments placing orders expect lead times to be short. Second, lead times for increasing capacity are long, as are lead times for drug production and encapsulation. Last, media coverage and press releases made by governments and other stakeholders increase the stakes, as negative media coverage may damage Roche's reputation with consumers, leading to lower sales levels for its products.

Case: When Supply is of Public Interest: Roche & Tamiflu

Guests: Stephen J. Gluckman, MD, Medical Director, Penn Global Medicine,
Professor of Medicine at the Hospital of the University of Pennsylvania

Anita Patel, PharmD, MS, Senior Adviser and Lead for Pandemic Medical
Care and Countermeasures, Influenza Coordination Unit, Centers for Disease
Control and Prevention

Reading: "Five-Hundred Life-Saving Interventions and Their Cost Effectiveness,"
(available in the Case and Readings folder on the course website. Apologies for the
mediocre quality of the copy. It was the best I could find in an extensive search that included
the authors personal websites).

Questions:

- 1) Imagine you head the U.S. Department of Health and Human Services and an episode of pandemic flu occurs. Construct a timeline that shows the actions you would take during a one-year pandemic flu, including the role of vaccines, additional production of Tamiflu, and how you would allocate scarce supplies of Tamiflu.
- 2) How big a stockpile of Tamiflu would you recommend the U.S. Department of Health and Human Services establish? Can you compare the cost of your recommended stockpile to other interventions described in “Five-Hundred Life-Saving Interventions and Their Cost Effectiveness”?
- 3) Considering all of the negative publicity, is Tamiflu a good business for Roche? In answering this question, please consider the profitability for Roche of the 200 million treatment dose that page 6 of the case mentions the U.S. is considering. You’ll find footnote 14 and the Roche financials given in the case useful in answering this question.

Class 5

4 Nov

Supply Chain Flexibility

Many products, especially new products, have highly unpredictable demand. Thus, having a supply chain that can respond quickly to actual sales can be extremely valuable in reducing lost sales due to stock-outs and reduced margin from end of season closeouts. Yet the pursuit of low labor costs has led to supply chains that stretch halfway around the globe, making rapid response to sales more challenging. This class will be a lecture that describes how leading companies are achieving flexibility and uses these examples to formulate principles for achieving supply chain flexibility.

Readings:

Fisher, Marshall “What is the Right Supply Chain for Your Product?” *Harvard Business Review*, March/April 1997

Hau Lee, “Aligning Supply Chain Strategies with Product Uncertainties”, *California Management Review*, Vol. 44, Number 3, Spring 2002

Chapter 4 Supply Chain Flexibility, M. L. Fisher and A. Raman, *The New Science of Retailing*, HBS Press, 2010 (available in the Case and Readings folder on the course website).

Class 6

6 Nov

Please submit your paper proposal today. If you are working with others, please submit a single proposal for your group.

PVH Global Supply Chain

In this class session we will hear from Bill McRaith, Chief Supply Chain Officer for PVH Corporation. Bill will discuss PVH's overall global supply chain, with a particular emphasis on their pioneering entry into Ethiopia. Africa is being viewed as the next frontier of low cost production, and within Africa, Ethiopia is viewed as an attractive country.

Guest: Bill McRaith
Chief Supply Chain Officer
PVH Corporation

Readings:

(available in the Cases and Readings folder on the course website)

Looking Beyond the Horizon: A case study of PVH's commitment to Ethiopia's Hawassa Industrial Park, Mamo Mihretu and Gabriela Llobet, June 2017, World Bank Group

(In course pack)

The Next Factory of the World: How Chinese Investment Is Reshaping Africa – Introduction chapter, pp. 1-13.

Class 7

11 Nov

Deciding Which Countries to Source From

As many companies consider 'reshoring' their manufacturing operations to the U.S., New Balance is famous for never having left the U.S. Indeed, it was only recently that they began to source from China, Vietnam and Indonesia. Now they are considering what other countries they might add to their sourcing mix. Gabriella Wortmann has just conducted an extensive study to evaluate the capabilities of many different countries and must determine how to interpret this data. New Balance is also thinking about how to best leverage its U.S. factory.

Case: New Balance (available in the Case and Readings folder on the course website)

Guest: Duncan Scott, Vice President for External Products, New Balance

Questions:

- 1) What qualities would make a country an attractive sourcing location? Are there any attributes you would add to Exhibits 15 and 16 that are relevant in a production location decision?
- 2) This question asks you to conduct a mini version of Gabriella Wortmann's study, so as to understand better where the information in Exhibit's 15 and 16 comes from. Visit the following three web sites.

<https://ilostat.ilo.org/data/country-profiles/>
<http://databank.worldbank.org/Data/Home.aspx>
<http://lpi.worldbank.org/international/global>

In addition to getting a general impression about the types of information they provide, use these sites as well as you can to compare and rank order China, Mexico, and Turkey (typical sourcing countries on three different continents) on average monthly earnings in U.S. dollars, GDP per capita (current US\$), and LPI (Logistics Performance Index) Score. If New Balance were considering sourcing in one of these countries, based on the data you gathered, which would you choose and why? Browse the World Bank site and suggest other data they provide that might be useful in deciding where to produce.

- 3) Suppose New Balance wants to choose one of the 12 countries listed in Exhibit 16 to enter next. Based on the data in Exhibit 16, which country would you recommend and why?
- 4) Producing in market to be more responsive to unpredictable consumer demand is a growing trend. Could New Balance use their U.S. factory for quick response to the U.S. market?

Class 8 **13 Nov**

Supply chain design: global sourcing issues

Luen Thai is based in China and is the largest supplier of private label apparel in the world. Since 1975, U.S. law had limited the amount of apparel that can be imported from a given country and apparel category. But as of January 1, 2005, all quotas have been relaxed and it is believed this will engender sweeping change in apparel industry supply chain practices. Luen Thai is endeavoring to exploit the opportunities this creates through some highly publicized initiatives such as their supply chain city and design-to-store concepts. This class will look in depth at these initiatives and the opportunities they create for apparel retailers.

The reading assigned as a companion to this case discussion describes how four companies thought about decisions on where to source from and is relevant to how Luen Thai might think about its options with rising wages.

Cases: Luen Thai Holdings, Inc. (A) Strategy for a Post Quota World
Luen Thai Holdings, Inc. (B) Coping with Rising Wages

Reading: Chapter 3: Shanghai or Charlotte? by David Pyke; from *Building Supply Chain Excellence in Emerging Economies*, Springer Science, edited by H.L. Lee and C.Y. Lee, New York, 2007.

Guests: Sunny Tan, Executive Vice President, Accessories Division, Luen Thai International Group

Questions:

- 1) What are your general impressions of Luen Thai's design-to-store and supply chain city concepts. What impresses you? What risks do you see?
- 2) What advice do you have for Luen Thai on the following options for coping with rising wage rates in Southern China?
 - a. Improve productivity
 - b. Raise prices
 - c. Move inland
 - d. Move to other countries

What factors would you consider in evaluating these options, what information would you gather and how would you analyze it?

Class 9
18 Nov

Supply Chain Risk Management

Diverse events such as earthquakes, fires, epidemics, and financial crises can disrupt a supply chain. In this class we will examine how to cope with these challenges, using Nissan and the Tōhoku earthquake in Japan as one of our examples.

Our guest for this discussion, Dana Martin, took this course in 2012 as a first year MBA at Wharton, did a summer internship at Flextronics focused on supply chain risk management, and decided to take a leave of absence from Wharton to play a leading role at Flextronics in establishing Elementum Supply Chain Management, a company that among other things, helps companies mitigate supply chain risk. Dana will present Elementum's activities with some of their clients.

Before his presentation, we will use the Ashmark Corp case to consider how to deal with one type of supply disruption, bankruptcy of a key supplier.

Case: Ashmark Corp: Dealing with a Supply Disruption

Readings:

Dana Martin and Dean Ocampo, "Crossing the Chasm in Supply Chain Security," Supply and Demand Chain Executive, May 2014. Available in the Cases and Readings folder on the course website.

Yossi Sheffi, "The Tears in the Deep Tiers," The European Business Review, November-December 2015. Available at <http://sheffi.mit.edu/sites/default/files/TEBR NovDec15-The Tears in the Deep Tiers.pdf>

Guest: Dana Martin, Product Manager, Risk Management Solutions, Elementum Supply Chain Management

Questions:

- 1) The protagonist in the Ashmark case is Scott Tilden, a supply chain manager at the company who is coping with the bankruptcy of a key supplier. The case discusses how he tried to cope with this problem and ends with “Tilden wondered what more he could have done. Or had he done all he could” How would you answer this question? What did he do right and what more could he have done? Consider two periods: what else might Ashmark have done prior to the bankruptcy as protection and what else could they have done after the bankruptcy?
- 2) What should an ideal SCRM system do? Would you have different approaches for different types of risks e.g. an earthquake vs. bankruptcy of a key supplier or for different types of parts e.g. commodity vs. sole sourced proprietary part? How would you evaluate the riskiness of a geographic supply point? What metrics would you use?

Class 10

20 Nov

Patagonia

Patagonia was founded in 1973 by Yvon Chouinard and is regarded as a leader in sustainability. In preparation for this class session, please browse their website <https://www.patagonia.com/home/> and compared with good questions for our industry guest.

Guest: Doug Freeman, COO, Patagonia

Class 11

25 Nov

Insuring product safety in an outsourced supply chain

In August and September 2007, Mattel made a series of product recalls, totaling more than 20 million toys. The recalls were for excessive lead and for magnets that could become loose. All of the recalled toys had been made in China. The Mattel recalls followed on the heels of a number of high-profile safety problems with Chinese imports, including contaminated pet food and toothpaste, defective tires, and lead-painted toys. The recalls sparked intense criticism of Mattel and its Chinese supply chain.

This case will provide a basis for discussion of outsourcing and the appropriate use of inspection and testing. It also provides the opportunity to examine response to a crisis situation, and the relationship between a company and government.

Case: Mattel

Reading:

Thomas Y. Choi and Tom Linton, "Don't Let Your Supply Chain Control Your Business," *Harvard Business Review*, December 2011

Questions:

- 1) What were the primary causes of Mattel's recall problems?
- 2) Consider the various players involved: Mattel, 1st tier suppliers, higher tier suppliers, retailers, Chinese government, the US government and state governments. How would you rate each of these players as to a) their responsibility for insuring product safety and b) how well they discharged that responsibility, both before and after the recall?
- 3) Assume you are VP of Product Safety at Mattel. Describe the program you would put in place to prevent lead paint in toys in the future. Would you use any of the ideas in "Don't Let Your Supply Chain Control Your Business"?
- 4) Before class, search the web for current instances of lead paint in toys and bring examples you find to class. Do you think the lead paint in toys problem described in this case has been solved?

Class 12

2 Dec

Partnering with suppliers

This class will focus on VF Brands, an apparel firm that was a maverick in that it was a fully integrated manufacturer doing most of its production in North America. Now they are transitioning to more outsourced production but would like to try to retain the benefits of in-house production by having close, partnership relations with their vendors. This case will let us look more at how companies decide 1) where to produce, 2) what to outsource and what to do themselves and 3) what kind of relationship do they have with suppliers.

Case: VF Brands: Global Supply Chain Strategy

Questions:

- 1) What is your evaluation of the "Third Way" sourcing strategy proposed in the case? What are its similarities and differences with the VF Owned and Operated and Packaged Sourced models.
- 2) In Exhibit 4, what do you think explains the differences in lead time and various costs between the Third Way, VF Owned and Operated and Packed Sourced models? What are the implications of these differences for the attractiveness of the Third Way?
- 3) What is the relative importance for heritage and lifestyle brands of low cost and short

lead time? How well does the capability of the factories currently making each product match those needs?

- 4) How should VF use the Third Way going forward?

Class 13

4 Dec

Impact of a potential Brexit

In April 2017, BMW AG (BMW) faced a big decision regarding which plant should receive the mandate to produce the first electric version of BMW's iconic Mini car. The leadership team of BMW's UK operations was determined to keep the Mini at its historical home base in the United Kingdom. However, given the uncertainty arising from the United Kingdom's decision to leave the European Union - a move commonly known as "Brexit" - how would the team be able to convince corporate headquarters?

Case: BMW Mini: Big Decisions Under the Brexit Cloud

Questions:

- 1) Why exactly is the UK leaving the EU of concern to the UK automotive industry?
- 2) What are the relevant decision criteria regarding the production line for the electric Mini?
- 3) What are the pros and cons of the alternative options for BMW regarding the production of the electric Mini?
- 4) As UK country manager for BMW, how would you advocate for the production mandate to go to Cowley?
- 5) As chief executive officer (CEO) of BMW globally, how would you proceed?

Class 14

9 Dec

Supply Chains at an Inflection Point: The Search for Low Cost Production. Review of Course to Date

China normalized relations with the west in 1979, ushering in three decades of vigorous export based on labor cost arbitrage and leading to China becoming the “workshop of the world.” During this period, wages have risen steadily and the RMB appreciated, to the point where China is no longer the cheapest source for many products, causing companies to shift production to other countries, in search of the ‘next China.’

As wages have risen, so has income, leading to an emerging middle class in China. Chinese manufacturing companies with diminished export opportunity are looking to the internal Chinese market as a source of demand, and most Western retailers are already in China or have near term plans to enter.

Chinese companies that have relied on low cost labor in the past can also try to move up the value chain by focusing on R&D, innovation and branded products. Indeed, this is what the Chinese government is asking them to do in their 2005-2020 Science and Technology Plan. We get some insight into where China is headed from their most recent five year plan, which calls for growing the domestic economy so Chinese companies are less reliant on exports, creating a highly skilled workforce to transition from being labor-rich to talent-intensive, emphasizing innovation, including spending 2.2% of GDP on R&D, and seeking to turn coastal regions from "the world's factory" to hubs of R&D & high-end manufacturing.

I will discuss research I have conducted with Edwin Keh to assess how companies are reacting to these changes. We have interviewed and administered written surveys to several dozen senior executives, both from Western companies that source from China and suppliers operating factories in China. We have also conducted visits to numerous retailers in China, both Western and Chinese, so as to identify and assess alternative China market strategies.

These changes in China have created a kind of “inflection point” in supply chain management, forcing companies to rethink where they source from and how they manage their supply chains.

Many Western commentators are skeptical that the Chinese government and companies will be able to create a culture of innovation. We offer a counterbalance to these arguments by describing a few highly innovative Chinese companies with whom we have had extensive interactions.

Readings:

Both readings are available in the Cases and Readings folder on the course website.

Chris Davis, “Bright Future of China’s Supply Chain,” *China Daily*, 7 August 2013

Note on Trade Terms and Policies