Rotman Commerce
UNIVERSITY OF TORONTO

Course Outline

RSM 370 H1 F
Supply Chain Management
Fall 2014
Course Meets: Wednesdays 4:00-6:00 (L0101 WO 20)

Instructor:	Ming Hu. RT 410 http://www.rotman.utoronto.ca/FacultyAndResearch/Faculty/FacultyBios/Hu.aspx
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Course Scope and Mission
Supply chains are networks of organizations that supply and transform materials, and distribute final products to customers. This course views the supply chain from a general manager's perspective. Supply chain management represents a great challenge as well as a tremendous opportunity for most firms. If designed and managed properly, supply chains are a crucial source of competitive advantage for both manufacturing and service enterprises. There is a realization that no company can do any better than its supply chain. This becomes even more important as product life cycles are shrinking, product and service variety is growing and competition is intensifying.

Course Objectives

- Understand how to make supply chain design and policy decisions to develop the supply chain capabilities required to support the business strategy and improve the performance of a firm and of an entire supply chain.
- Learn how to examine and improve the flow of materials and information through a network of suppliers, manufacturers, distributors, and retailers in order to help firms get the right product to the right customer in the right amount and at the right time.
- Learn how to make decisions on the following fundamental supply chain performance drivers: facilities, inventories, transportation, information, sourcing and pricing.
- Special emphasis is given to gaining an understanding of how supply chain decisions have to account for coordination requirements within and across firms, the impact of uncertainty, and the specific product and customer characteristics that derive from the overall business strategy.

The course draws on a mix of lectures, case discussions and spreadsheet models. It

emphasizes the use of qualitative and quantitative analysis in making supply chain management decisions.

Target Audience
This course is intended for students interested in general management or careers in consulting, operations, or marketing. Understanding how supply chain management impacts business performance is also of value for students aspiring to accounting and finance careers.

Course Prerequisites
Prerequisite: Completion of 10.0 full-course equivalents
Corequisite: RSM270H1
If you drop course RSM270H1 (the co-requisite) during the academic term, you must also drop this course. Contact Rotman Commerce Academic Program Services for academic advising if needed.

Course Exclusions
RSM 311H1F – Supply Chain Management

Required Readings
- "*Supply Chain Management: Strategy, Planning, & Operation*," Chopra & Meindl (C&M), 3rd or 4th or 5th Ed.
- Cases
- Further course materials (made available on portal before/after the relevant sessions)
    - Slides
    - Solutions
    - Excel spreadsheets for C&M examples
    - Sample final exam
    - Links to supplementary readings. I encourage you to bring interesting articles to my attention.

Optional Readings
Other supply chain management textbooks that may be of interest:
- "*Modeling the Supply Chain*," J. F. Shapiro
- "*Designing and Managing the Supply Chain*," D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi
- "*Inventory Management and Production Planning and Scheduling*," E. Silver, D. F. Pyke, R. Peterson
- "*Business logistics Management*," R. H. Ballou
- "*Strategic Logistics Management*," D. M. Lambert and J. R. Stock
- "*The Management of Business Logistics*," J. J. Coyle, E. J. Bardi and C. J. Langley
- "*Logistical Management*," D. J. Bowersox, D. J. Closs, O. K. Helferich

Other business books that may be of interest:
- "*Clock Speed*," C. H. Fine
- "*Mass Customization*," by B. J. Pine; "*Markets of One*," J. H. Gilmore and B. J. Pine
- "*Towards a Better Supply Chain*," C. C. Poirier
- "*Time Based Competition*," J. D. Blackburn
- "*Competing Against Time*," G. Stalk, Jr. and T. H. Hout
- "*Balanced Sourcing*," T. M. Laseter

Evaluation and Grades
Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.

Grade Component		Individual / Group	Due Dates
Full case analyses (3)	30%	group	Sep 24; Oct 15; Oct 29
Problem set (1)+mini case analysis (1)	10%	individual	Oct 8; Nov 12 or Nov 26
Final exam	50%	individual	TBA
Class Participation	10%	individual	Ongoing

Details on the workload and grade components are as follows:

Workload. This is a course that challenges you to think through and recommend important supply chain decisions based on thorough qualitative and quantitative analysis. Supply chain management is a topic best learnt by doing. The workload is medium and good planning will make it very manageable and your payoff could be significant. The mix of written assignments, case studies and final exam is designed to develop the skills and understanding you need to gain significant supply chain management expertise.

- Expect to spend around 10 hours for each of the written full case analyses and around 5 hours for the problem set and mini case analysis. These are just guidelines – it may take you more or less time.
- If you follow along during the quarter, preparing for the final exam should take little time.

Quantitative and Qualitative Analysis. Good supply chain management is both an art and a science. Our discussion will therefore draw on a balanced blend of qualitative and quantitative analyses. Expect the course to require a fair amount of spreadsheet modeling and analysis. This analysis may at times be quite involved, but it will always be performed with one of the following objectives in mind: (1) to quantify the financial performance of supply chain decisions, (2) to illustrate and discuss supply chain principles or practical phenomena.

Full Case Analyses (group, 30% of the grade). There are three written case analyses, expected to be done in groups of at most **4** students. I strongly advise each group member to actively work on every part of the assignments. Otherwise, I find that students only come to understand the part of the course dealing with assignments they worked on, and do not learn the other parts. In your assignments, as in your post-graduate jobs, you will be expected to also figure some things out on your own prior to our class discussion, rather than to only apply things already covered. See the "Guidelines for Full Case Analyses" at the end of this course outline and write your reports accordingly.

Problem Set & Mini Case Analysis (individual, 10% of grade). There will be two individual assignments, one problem set and one mini case analysis (Blockbuster or Webvan, not both; the goal is to have roughly half the students hand in each mini case analysis, the details of the choice procedure will be discussed in class.) Both assignments consist of answering a few specific questions. As such they are much more narrowly defined than the full case analyses in which the stated questions merely outline, but are not intended to exhaust, the range of your analysis.

Final Exam (individual, 50% of grade). The final exam will be comprehensive, in class and closed book. It will consist of short, mainly conceptual, questions and one or two quantitative questions. The main objective is for you to review and synthesize all the course concepts. It will test your understanding of the main concepts, not your ability to memorize information. A sample exam will be available on the web site.

Class Participation (individual, 10% of grade). Your grade will depend on your preparation of the assignments and the quality of your contribution. There should be enough opportunities for you to participate. To increase opportunities for effective participation, I will occasionally cold call

students. Please leave your name card up for the entire duration of each class and keep the same seat for the duration of the quarter. If you feel uncomfortable with being called on in class, please let me know in advance so we can work out a solution. Generally, you should contribute to the creation of a positive learning environment. Some key characteristics of valuable contributions are:

- Relevance: Are your comments timely and linked to the comments of others?
- Advancement: Do your comments take the discussion farther or deeper?
- Fact-based: Have you used specific data to support the assertions that you are making?
- Logic: Is your reasoning consistent and logical?
- Originality: Do your comments merely restate the facts or do they provide new insights?

Attendance and Classroom Etiquette. You are required to attend class. In addition, please observe the following rules. 1. Be on time and stay for the entire session. 2. Laptops are only permitted for taking notes.

Potential Grade Disputes. All grade disputes must be submitted in writing within two weeks of an assignment/exam being returned. I reserve the right to regrade the entire assignment/exam, and possibly lower your grade, if I find that I overlooked a mistake.

COURSE FORMAT AND EXPECTATIONS

For Written Assignments:
Please note that clear, concise, and correct writing will be considered in the evaluation of written assignments. That is, you may lose points for writing that impedes communication: poor organization, weak paragraph development, excessive wordiness, hard-to-follow sentence structure, spelling mistakes and grammatical errors. Students who require additional support and/or tutoring with respect to their writing skills are encouraged to visit the Academic Success Centre (www.asc.utoronto.ca) or one of the College Writing Centres (www.writing.utoronto.ca/writing-centres). These centres are teaching facilities – not editing services, where trained staff can assist students in developing their academic writing skills. There is no charge for the instruction and support.

For Group Work:
Full Case Analysis requires students to work in teams of at most **4**.

Learning to work together in teams is an important aspect of your education and preparation for your future careers. That said, project-based teamwork is often new to students and you are therefore reminded of the following expectations with respect to behaviour and contributions to your team project.

1. Read the document entitled, “Working in Teams: Guidelines for Rotman Commerce Students” which is available on the RC portal under the Academic Services tab.

2. When working in a team, Rotman Commerce students are expected to:

- Treat other members with courtesy and respect;
- Honour the ground rules established by the team;
- Contribute substantially and proportionally to the final project;
- Ensure enough familiarity with the entire contents of the group project/assignment so as to be able to sign off on it as original work;
- Meet the project timeline as established by the team.

3. Resolving conflicts:
Conflicts are part of the team's process of learning how to work together effectively and when handled well can generate creativity and bring-multiple perspectives to the solution.

Student teams are collectively expected to work through their misunderstandings as soon as they arise (and prior to submission of the final project). In cases where teams are unable to arrive at a solution that works for all members, the team must meet with the Rotman Commerce Team Coach** as soon as possible. The Coach will listen to the team and help develop options for improving the team process. All members of the project team must commit to, and, utilize their action plans.

** For an appointment with a Rotman Commerce Team Coach, please contact Nikoleta Vlamis at nikoleta@nikoletaandassociates.com or Elaine Zapotoczny at elaine@nikoletaandassociates.com. Nikoleta and Elaine are highly skilled at facilitating team dynamics and collaboration. Note that the Team Coach's s role is to provide guidance, support and advice on team matters – not to formally evaluate or assess teamwork for academic purposes.

Weekly Schedule

Session	Topics & Required Readings	Submit
1 Sep 10	**Framework: Supply Chain Design, Planning & Operation**	
	C&M 1 – 3; ***Seven-Eleven Japan***	
2 Sep 17	**Designing the Supply Chain Network: Facility Decisions**	
	C&M 4-6; ***Applichem (A)***	
3 Sep 24	C&M 5-6 (review); ***Bio Pharma***	***Bio Pharma*** (group analysis)
	Supply Chain Planning	
	C&M 8-9	
4 Oct 1	**Managing Inventories**	
	Cycle Inventories: C&M 10.1-10.4.	
5 Oct 8	Cycle Inventories: C&M 10 (finish/review) Safety Inventories: C&M 11.1-11.5	**Problem set** (individual)
6 Oct 15	Safety Inventories: C&M 11 (finish/review); ***ALKO***	***ALKO*** (group analysis)
7 Oct 22	Optimal Availability: C&M 12	
8 Oct 29	Optimal Availability: C&M 12 (review); ***Sport Obermeyer***	***Sport Obermeyer*** (group analysis)
	Managing Transportation	
	C&M 13.1-13.4	
9 Nov 5	C&M 13 (finish/review); ***Merloni Elettrodomestici***	
	Sourcing and Coordination	
	Sourcing: C&M 14.1-14.6	
10 Nov 12	Sourcing: C&M 14 (finish/review); ***Blockbuster Video***	***Blockbuster*** (individual mini analysis; choose this or Webvan)
11 Nov 19	Coordination: C&M 17; ***Barilla SpA (A)***	
12 Nov 26	**E-Business and the Supply Chain**	***Webvan*** (individual mini analysis; choose this or Blockbuster)
	C&M 4 (review); ***Webvan: Groceries on the Internet***	
Final	**FINAL EXAM: in class, closed book** (date/time TBA)	

Weekly Schedule: Details

The schedule below details the topics, readings and assignments for each week. Reading guidelines:

- Read *all* cases before they are discussed in class, *whether a submission is required or not*.
- Chapters from C&M are assigned as background reading with the material being covered. They are best reviewed after the lecture to reinforce the concepts discussed. The book also provides technical details that may not be discussed in class.
- I recommend that you review certain examples covered using the Excel spreadsheets.

Session 1 (Sep 10): A Framework for Supply Chain Design, Planning and Operation

We will discuss supply chain management and its importance for business success. We will discuss different views of a supply chain and raise a variety of supply chain related questions that need to be answered by any firm. Our goal is to develop a framework within which supply chain decisions may be analyzed and appropriate tradeoffs considered. We will define overall performance measures for a supply chain and establish initial links to the drivers that a supply chain designer or manager may control. We will introduce the notion and importance of tailoring the supply chain. This will be an important concept that we will refine in the context of different drivers throughout the course. Supply chain decisions will be divided into three categories - strategic/design, planning, and operational.

We will illustrate the framework in the context of the *Seven-Eleven Japan* case.

Read: C&M Chapters 1 – 3, *Seven-Eleven Japan*

Prepare: *Seven-Eleven Japan* (questions at the end of the case)

Session 2 (Sep 17): Designing the Supply Chain Network: Facility Decisions

We will discuss relevant issues in designing the supply chain network. We will develop a framework for facility decisions that allows for a multi-plant, multi-warehouse network to supply a large and diverse customer base. Our objective will be to optimally structure the distribution network, taking into account cost and customer service factors. We will continue the network design discussion by considering various network design optimization models. In the context of the *Applichem (A)* case, we will study the impact of uncertainty on network design decisions.

Read: C&M Chapters 4-6, *Applichem (A)*

Prepare: *Applichem (A)*

1. Why are some plants "better" performers than others? List the factors that you feel affect performance. How should plant performance be compared?
2. You are provided a workbook APPLICHEM.XLS to help you evaluate production and distribution decisions. All costs are in 1000's of US$. The data is from Exhibits 2, 4, 5 of the case and is as follows:
   Variable cost per 100,000 lb.: Calculated from Exhibit 2 using raw materials, direct labor, waste treatment and supplies as the components. The costs are in 1000's of $ per 100,000 lb.

Fixed cost: Remaining costs are treated as fixed costs and the fixed cost per plant is obtained by multiplying the remaining costs by the volume produced in 1982. The costs are in 1000's of $.
Transportation costs: Obtained from Exhibit 5. The costs are in 1000's of $ per 100,000 lb.
Import duties: Obtained from exhibit 5. The worksheet assumes that duties are charged based on the production cost in the source country. Thus, the duties for entry into Mexico would differ if the source plant is Frankfurt or Gary.
Demand: The demands assumed by region are

Mexico	3.0 million pounds
Canada	2.6 million pounds
Latin America	16.0 million pounds
Europe	20.0 million pounds
Asia Pacific	11.9 million pounds
U.S.A	26.4 million pounds

Exchange rates: Obtained from Exhibit 6.
Price Indices: Obtained from Exhibit 6.

All input data is contained in the worksheet APPLICHE. All cost calculations are based on the costs given in 1982 US$. The basic assumption is that the technology at the plants has not changed significantly in the specified six years. To evaluate variable and fixed costs for a given year (between 1977 and 1982) simply click on the button Calculate Costs in the worksheet APPLICHE. A dialog box will appear asking you for the year for which cost calculations are to be made. Enter the year (say 1981) and click OK. All calculations are done automatically and the costs in 1981 US$ are obtained. The variable and fixed costs are calculated and appear on sheet1 along with the demand by region. These can then be used as input to any optimization model. The adjustments to cost are as follows:

$$COST^{1982}_{19XX} = COST_{1982} * \left(\frac{EXCHANGRT_{1982}}{EXCHANGRT_{19XX}}\right) * \left(\frac{PRICEINDEX_{19XX}}{PRICEINDEX_{1982}}\right)$$

For example, the raw material cost in Mexico in 1982 was $75.05 per hundred pounds of release-ease. This translates to 75.05*96.5 Pesos in 1982, which is equivalent to 75.05*96.5*(124.4/194.2) 1981 Pesos. This is equivalent to 75.05*(96.5/26.2)*(124.4/194.2) = 177.07 1981 US$. For this calculation to be truly valid, we are making the assumption that all raw materials are procured locally for production.

How do you think Joe Spadaro should structure his worldwide manufacturing system? Assume that the past is a reasonable indicator of the future in terms of exchange rates and inflation. How would you justify your answer?

3. What impact do you think the abolition of all duties will have on your recommendations?

Session 3 (Sep 24): Designing the Supply Chain Network: Facility Decisions (cont.) · Planning

We will first discuss the *Bio Pharma* case and conclude the supply network design discussion.

Next we will turn to supply chain planning decisions. The supply chain network design decisions define the resources available and tend to stay in place for years. On a more regular basis (monthly or quarterly), management must make decisions regarding the near term use of these resources. Our goal is to understand the role of planning in the success of a supply chain. We will cover forecasting only briefly, reviewing the general principles without going into the numerous forecasting methods (which you can read about in chapter 7 of C&M.) Our discussion

will focus on aggregate supply planning (concepts, methodologies and strategies) and the link between supply planning and demand management actions such as promotions.

Read: C&M Chapters 5-6 (review) and 8-9, *Bio Pharma Inc.*

Submit: Full case analysis (group) of *Bio Pharma Inc* (p. 175-177 in C&M, incl. questions.)

Session 4 (Oct 1): Economies of Scale and Cycle Inventory

Next we will turn to the management of inventory to ensure fit with stated strategic goals. Our first goal is to understand the buildup of cycle inventory and managerial actions that can improve supply chain performance in this respect. After briefly reviewing the basic EOQ model, we will investigate its application and implications for multi-product, multi-location inventory management. We will then start considering the role and value of pricing incentives in managing cycle inventories, specifically how quantity discounts and trade promotions impact order sizes, inventory levels and cycle times.

Read: C&M Chapter 10.1-10.4.

Session 5 (Oct 8): Economies of Scale and Cycle Inventory (cont.) · Uncertainty & Safety Inventory

After completing the discussion of cycle inventories we will consider how to manage safety inventory to respond to uncertainty, which is the major obstacle to matching supply and demand in a supply chain. Our goal is to discuss strategies that allow a supply chain to provide high availability and variety at reasonable costs. In this session we will first briefly review and then further develop the basic analytics of safety inventory as a basis for the *ALKO* assignment. We will discuss various measures of customer service such as cycle service level and fill rate and will then derive precise relationships between these product availability measures and safety inventory.

Read: C&M Chapters 10 (finish/review) and 11.1-11.5.

Submit: problem set (individual; posted on portal).

Session 6 (Oct 15): Uncertainty & Safety Inventory: Tailored Pooling

We will discuss the *ALKO* case to identify the factors that affect the location of inventories within the distribution system. The case illustrates the inventory, transportation, and facility tradeoffs when designing a supply chain. We will discuss various business models that rely on this ability to pool uncertainty, including the concepts of postponement and levers for mass customization. A key objective will be to develop an understanding of *how to tailor* safety and cycle inventory locations in a network based on demand and supply characteristics.

Read: C&M Chapter 11 (finish/review), *ALKO Inc.*

Submit: Full case analysis (group) of *ALKO Inc.* (p. 341-342 in *C&M*, incl. questions)

Session 7 (Oct 22): Optimal Product Availability

We will discuss how a firm determines the optimal level of product availability, particularly for short life-cycle products in markets with significant uncertainty, and how to make these ordering decisions in the presence of capacity constraints. This session will focus on first briefly reviewing and then further developing the analytics of the newsvendor model as a basis for the *Sport Obermeyer* assignment. Based on an understanding of the tradeoffs involved in making these decisions, we will discuss managerial actions to improve supply chain profitability.

Read: C&M Chapter 12

Session 8 (Oct 29): Optimal Product Availability (cont.) · Managing Transportation

We will discuss how to match supply and demand in the context of the *Sport Obermeyer* case, considering how to allocate speculative and reactive capacity to different products and suppliers. This will introduce the notion of tailoring sourcing decisions based on product demand uncertainty and supplier capabilities.

We will then turn our focus to transportation decisions. We will briefly look at the main transportation modes and then investigate the link between transportation and inventory costs in the design of transportation networks.

Read: C&M Chapters 12 (review) and 13.1-13.4, *Sport Obermeyer*

Submit: Full case analysis (group) of *Sport Obermeyer*. NOTE: This case is typically found to be the most challenging one in this course. Make sure to start thinking about it early enough. Hint: feel free to IGNORE price differences across styles throughout your quantitative analysis (you can discuss how such price differences would change your quantitative analysis at the end of your report.)

1. Using the sample data in Exhibit 10, make a recommendation for how many units of each style Wally Obermeyer should order during the initial phase of production. Assume that there is no minimum order size requirement, and that Obermeyer's initial production commitment must be at least 10,000 units. Assume that an initial order of 10,000 units leaves sufficient capacity for the second order.
2. Using the sample data in Exhibit 10, make a recommendation for how many units of each style Wally Obermeyer should order during the initial phase of production. Assume that all ten styles in the sample problem are made in Hong Kong (a minimum commitment of 600 units per style ordered), and that Obermeyer's initial production commitment must be at least 10,000 units. Ignore price differences among styles in your initial analysis. Clearly spell out the methodology you have used to make your ordering decisions in an exhibit. Spell out the logic behind your methodology. *I am not looking for one optimal solution. My focus will be on your thinking about how such an issue can be approached.*
3. Can you come up with a quantifiable measure of risk associated with your ordering policy?
4. Repeat your analysis, now assuming that all styles are made in China. What differences (if any) result?
5. What operational changes would you recommend to Wally to improve performance? Clearly list the expected benefits from each change. Please try and be very specific in terms of the changes and benefits in response to this question.
6. How should Obermeyer management think (both short term and long term) about sourcing in Hong Kong versus China? What sourcing policy would you recommend?

Session 9 (Nov 5): Managing Transportation (cont.) · Sourcing & Supply Chain Coordination

We will continue discussing transportation decisions, looking at the various key tradeoffs, with a focus on transit points and cross docking in the context of *Merloni Elettrodomestici*.

Having discussed the logistical drivers, facilities, inventories and transportation, we will turn to sourcing and supply chain coordination. We will first develop a framework for thinking about sourcing decisions and then consider the fundamental question "to outsource or not to outsource?" from a supply chain perspective. We will next focus on how different contracts and incentive plans in the supply chain affect the behavior at different supply chain stages and overall. For example, book publishers buy back unsold books. Movie studios have gone from charging a high up-front fee for movies to charging a low up-front fee and sharing rental revenues. Are these good ideas or not and why?

Read: C&M Chapters 13 (finish/review), 14.1-14.6, *Merloni Elettrodomestici*

Prepare: *Merloni Elettrodomestici.*
1. Should Merloni switch to a transit point based distribution system?
2. What are the pros and cons of this decision?

Session 10 (Nov 12): Sourcing & Supply Chain Coordination (cont.)

We will continue discussing supply chain contracts, including revenue sharing in the context of the *Blockbuster Video* case, quantity flexibility contracts, and then discuss various contracting issues. We will then discuss the various sources of value from procurement and conclude with guidelines on how to structure a supplier portfolio.

Read: C&M Chapter 14 (finish/review), Blockbuster *Video*

Prepare: Blockbuster Video
1. Why is the availability of movies poor at rental stores, especially of newly released movies? Specify the factors that contribute to this poor availability problem.
2. How should video rental stores such as Blockbuster decide the number of movie copies to stock for newly released movies? (Indicate the factors and rules that you would use to determine the number of copies to be stocked.)
3. A Blockbuster needs to decide how many copies of a new movie to purchase. A Blockbuster store has constructed the following forecast of rentals for this movie.

No. of tapes Purchased	Expected total number of rentals
1	40
2	70
3	90
4	105
5	115
6	120
7	122

For example, if they purchase 3 copies, then they expect those 3 copies together to rent a total of 90 times. Clearly, the more copies purchased, the greater the total number of rentals, but each additional copy generates fewer incremental rentals over the previous one.

Suppose Blockbuster can purchase each copy for $70 (wholesale price) and charges $4 per rental. The supplier of Blockbuster incurs a cost of $10 per unit. How many copies would Blockbuster buy? What would be Blockbuster's expected profit? The supplier's profit? The Supply Chain Profit?

4. a) Would a revenue sharing strategy solve the problem of poor availability at rental stores such as Blockbuster? Why?
   b) What are the prerequisites for implementing revenue sharing idea between supplier and buyer?
   c) As a supplier, what would be your potential concerns with implementing a revenue sharing contact?
5. Suppose you are Blockbuster's supplier and you are considering offering a revenue sharing contract, whereby you will sell each tape at a reduced wholesale price (less than current wholesale price of $70) but then you will also collect a certain fraction of Blockbuster's rental revenue. The other factors such as rental fee and Expected total number of rentals will remain the same as given in question 3. Design a revenue sharing contract that leads to maximum supply chain profit and win-win situation for you and Blockbuster. Clearly explain how you have arrived at a specific value for the wholesale price and revenue sharing fraction. Avoid a trial-and-error approach. (Your proposal must specify the wholesale price and the fraction of revenue that you would collect from Blockbuster). For your designed contract, specify Blockbuster's order quantity, and Blockbuster's, the supplier's, and the total expected profit.

Submit: mini case analysis (individual) of Blockbuster Video (assignment posted on portal, will consist of only a subset of questions stated above)
Note: Choice between this and the Webvan assignment (due in session 12) as determined in class.

Session 11 (Nov 19): Sourcing & Supply Chain Coordination (cont.)

We will continue our discussion of sourcing and supply chain coordination, focusing on the causes and countermeasures of the bullwhip effect with the *Barilla* case as a backdrop, and then conclude with a summary of possible actions to consider when aiming for improved supply chain coordination.

Read: C&M Chapter 17, Barilla SpA (A)

Prepare: Barilla SpA (A)

1. Why are orders placed by Cortese with Pedrignano much more variable than the demand faced by Cortese? How does this affect Barilla?
2. What actions can Barilla take to rectify the situation?
3. Do you anticipate any resistance and implementation challenges?
4. What actions do you recommend to overcome these challenges?

Session 12 (Nov 26): E-Business and the Supply Chain

We will discuss the impact of the Internet on the supply chain in the context of the *Webvan* case. How does the Internet affect distribution network options and their economics?

Read: C&M 4 (review), *Webvan: Groceries on the Internet*

Prepare: *Webvan: Groceries on the Internet*

1. What will it take for the Webvan business model to earn a return?
2. Who is the target market for Web ordering/home-delivery? Compare the business models of each of the grocery services described in the case. Which elements do you think have most appeal to the target customer? Which company has the winning model?
3. What activities does Webvan perform in the physical world and which in the digital world? Which of these two domains has the greater potential for consumer value creation?
4. What kinds of information is Webvan able to collect on its subscriber households? How might this information be used to serve its customers? How might it serve manufacturers?
5. Market penetration of home delivery services is quite small, even in markets like Boston where several services have competed for a number of years. What is Webvan's break-even penetration? How easy will it be to attain it?

Submit: mini case analysis (individual) of Webvan (assignment posted on portal, will consist of only a subset of questions stated above)
Note: Choice between this and Blockbuster assignment (due in session 10) as determined in class.

Guidelines for Full Case Analyses

The reports are graded for both content and presentation. A good paper should start with a clear and succinct statement of recommendations (on first page) to provide the reader with a framework. (If a lengthy description of the recommendation seems necessary, append it to the report.) The remaining paragraphs should each present a major part of the rationale for the recommendation in terms of the desirable and undesirable consequences of adopting it. The rationale must consider capabilities that the supply chain under study needs to excel at, and how the current system either provides these capabilities or fails to provide them.

Some common problems in preparing reports result from inadequate analysis. Analysis for a report is a time consuming and intellectually challenging task. Each case has a set of questions which are a guide to help you with the analysis. However, do not limit your analysis to narrowly answering these questions. The objective is to evaluate a complete range of alternatives and discuss the full consequences of your recommendation.

A good report is not a chronology of analysis, but a clearly articulated statement of recommendations and support. Case facts need not be restated unless used to make a point. If you recommend against certain options under consideration, provide a clear rationale for doing so. I will assume that all alternatives and options left out of the report are not important to you. You must clearly discuss how your recommendations aid in the development of capabilities that are important for the supply chain under study. You should identify and explain desirable and undesirable consequences of your recommendations. In the overall evaluation of your report I place the greatest importance on how well you justify and explain your recommendations.

Per the honor code, an individual should sign the report only if he or she has contributed to the analysis.

Written Case Analyses: Deadlines, Submission and Format Guidelines

- Deadline: Written case analyses are due before the start of the class session for which they are assigned. **Late assignments are not acceptable - no credit will be given**. For exceptional circumstances see **POLICY AND PROCEDURE**.
- Submission: Submit your report in hard copy, not by email. Exception: If the entire group is absent from class, email me your report and request confirmation.
- Format & length: About 3 to 4 pages (typed, double-spaced, max. 12pt font size), not including appendices and exhibits. Recommendations should be summarized on 1 page. Each recommendation should be supported by a crystal clear discussion of how it follows from your analysis.
- Exhibits: Must be neat and easy to understand. In particular, Excel spreadsheets should be self explanatory and consistent with any references in the main text. Structure spreadsheets so that I can easily track how the aggregate performance (e.g., profit) of a decision alternative follows from intermediate calculations (e.g., supply chain actions, cost and revenue drivers.)
- Grading: I will take the perspective of a consulting client and evaluate how well your report measures up against these 3 questions. 1) Did you ask all the relevant questions? 2) Do your answers to these questions adequately account for the relevant data, information and tradeoffs? 3) Do you make it crystal clear how you reach your answers, i.e., is the link clear from data to analysis to recommendations?

POLICY AND PROCEDURE

Missed Tests and Assignments (including midterm examinations)
Students who miss a test or assignment for reasons entirely beyond their control (e.g. illness) may submit a request for special consideration. Provided that notification and documentation are provided in a timely manner, and that the request is subsequently approved, no academic penalty will be applied.

In such cases, students must notify Rotman Commerce on the date of the missed test (or due date in the case of course work) and submit supporting documentation (e.g. Verification of Student Illness or Injury form) to the Rotman Commerce Program Office within **48 hours** of the originally scheduled test or due date. Students who do not provide Rotman Commerce or the instructor with appropriate or sufficient supporting documentation will be given a grade of 0 (zero) for the missed test or course deliverable.

Note that the physician's report must establish that the patient was examined and diagnosed at the time of illness, not after the fact. Rotman Commerce will not accept a statement that merely confirms a report of illness made by the student and documented by the physician.

Late Assignments
Students who, for reasons beyond their control, are unable to submit an assignment by its deadline must obtain approval from the instructor for an extension. Supporting documentation will be required as per the policy on missed tests and assignments.

Accessibility Needs
The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: disability.services@utoronto.ca or http://www.accessibility.utoronto.ca/.

Academic Integrity
Academic Integrity is a fundamental value essential to the pursuit of learning and scholarships at the University of Toronto. Participating honestly, respectively, responsibly, and fairly in this academic community ensures that the UofT degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

The University of Toronto's Code of Behaviour on Academic Matters
http://www.governingcouncil.utoronto.ca/policies/behaveac.htm outlines the behaviours that constitute academic misconduct, the process for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In papers and assignments:
- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

On test and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to), medical notes.

All suspected cases of academic dishonesty will be investigated by the following procedures outlined in the *Code of Behaviour on Academic Matters.* If you have any question about what is or is not permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other UofT resources such as College Writing Centres or the Academic Success Centre.

Email

At times, the course instructor may decide to communicate important course information by email. As such, all UofT students are required to have a valid UTmail+ email address. You are responsible for ensuring that your UTmail+ email address is set up AND properly entered on the ROSI system. For more information please visit http://help.ic.utoronto.ca/category/3/utmail.html

Forwarding your utoronto.ca email to a Hotmail, Gmail, Yahoo or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Hotmail, Gmail or Yahoo accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

Blackboard and the Course Page

The online course page for this course is accessed through Blackboard. To access the course page, go to the UofT Portal login at https://portal.utoronto.ca/ and log in using your UTORid and password. Once you have logged in, look for the My Courses module where you'll find the link to all your course websites. If you don't see the course listed here but you are properly registered for the course in ROSI, wait 48 hours. If the course does not appear, go to the Information Commons Help Desk in Robarts Library, 1st floor, for help, or explore the Portal Information and Help at www.portalinfo.utoronto.ca/students and review the Frequently Asked Questions.

Recording Lectures

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission, and may not do so unless permission is granted (note: students who have been previously granted permission to record lectures as an accommodation for a disability are, of course, excepted). This includes tape recording, filming, photographing PowerPoint slides, Blackboard materials, etc.

If permission is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in anyway. It is absolutely forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.