



[SCM] SUPPLY CHAIN MANAGEMENT

Introduction

Logisticians are a sad and embittered race of men who are very much in demand in war, and who sink resentfully into obscurity in peace. They deal only with facts, but must work for men who merchandize with theories. They emerge during war because war is very much a fact; they disappear in peace because peace is mostly theory. The people who merchandize with theories and employ logisticians in war and ignore them in peace are generals.

Generals are a happily blessed race who radiate confidence and power. They feed only on ambrosia and drink only nectar. In peace, they stride confidently and can invade a world simply by sweeping their hands grandly over a map, pointing their fingers decisively up terrain corridors, and blocking defiles and obstacles with the sides of their hands. In war, they must stride more slowly because each general has a logistician riding on his back and he knows that, at any moment, the logistician may lean forward and whisper: "No, you can't do that." Generals fear logisticians in war and in peace; generals try to forget logisticians.

Romping along beside generals are strategists and tacticians. Logisticians despise strategists and tacticians. Strategists and tacticians do not know about logisticians until they grow to become generals – which they usually do.

Sometimes a logistician becomes a general. If he does, he must associate with generals whom he hates; he has a retinue of strategists and tacticians whom he despises; and, on his back, is a logistician whom he fears. This is why logisticians who become generals always have ulcers and cannot eat their ambrosia.

Author Unknown

Effective operations managers excel at two complementary levels. First, they are familiar with the basic rules that govern business processes. This helps them improving the operations *within* their firms—the focus of *Operations Management*. Second, they understand the supply chains their firms belong to and how these extend *far beyond their firms' boundaries*. This helps them ensuring that adequate value is delivered to the final customer when working together with upstream and downstream players—the focus of *Supply Chain Management*.

In this course, we will introduce the key principles that govern supply chains. We will also discuss and analyze long-term operational strategies that take into account the different players in the

value chain. For this, we will focus on three important constituencies of supply chains: (i) the physical flows of goods and services (i.e., logistics); (ii) the information flows; and (iii) the value flows.

Objectives

- Understand the key principles that govern the design and dynamics of supply chains, i.e., facility location, logistics, inventory management, etc.
- Identify the roles and incentives of the different players belonging to a supply chain.
- Understand how efficient coordination and competition can be achieved across players with different interests.
- Understand how value creation is distributed among players in the supply chain.
- *Identify the key criteria to make long-term, strategic decisions in supply chains*

Learning Outcomes

After the course, students will be able to:

- Identify and quantify the different revenue and cost elements of diverse supply chain configurations.
- Assess the convenience of a certain supply chain configuration given the company strategy and the competitive context.
- Evaluate the elements required for effective coordination across players of a supply chain and elaborate high-level requirements in terms of information sharing, planning and incentive systems.
- Evaluate the strategic positioning of a company within a given value chain.

Competences

General competences

- To prioritize objectives, schedule activities appropriately, and execute them within the proper timeframe.
- To distinguish and categorize relevant information effectively for business decision making.

Specific competences

- To optimize systems of operations and logistics chains with special attention to processes, queues, and inventory management.
- To implement product and service delivery strategies that encompass all the actors in the production chain: suppliers, manufacturers, distributors, and customers.

Content

See session distribution at the end.

Methodology

This course combines cases, simulation games, and lectures. I provide a brief description of the objective of each session, followed by the case and other required readings. I also provide a number of references of articles and books to go into greater depth in specific supply chain topics, in the *Bibliography* section.

Evaluation

There will be three major elements to formally evaluate your performance:

Class participation: 50%

You are expected to be an active member of the class and contribute to the quality of the discussion. I will evaluate class participation using the following criteria: (i) relevance of the points made, (ii) understanding and analysis of the case, (iii) coherence—and absence of overlap—with other comments already made in class, and (iv) willingness to contribute. Repetition or superfluous or irrelevant comments will penalize your grade. In order to assist you in the case preparation, I provide you with some preparation guidelines for each session. These assignment questions are primarily intended to clear out some points on the case and to give you a direction for the discussion, but your understanding of the matter will only increase if you then continue the analysis on the managerial level and finally come to a good solution of the problem(s) presented in the case.

Consolidation activity: 50%

This is a unified report that spans Supply Chain Management, Global Strategy, and Cross-Cultural Management. More information about it is provided at the end of this document.

Bibliography

The course materials are distributed in a course package that contains the cases, the technical notes and some additional readings, which are optional. No textbook is required, but the following ones may prove useful as future reference:

Specific to the module *Supply Chain Management*:

- Operations Management for Executives, Moscoso and Lago, McGraw Hill 2017, Chapters 9,10,11 and 12.
- Chopra, S. and Meindl, P., *Supply chain management*, Prentice Hall, 2001.
- Simchi-Levi, D., Kaminsky P., and Simchi-Levi, E., *Managing the supply chain: The definitive guide for the business professional*, McGraw-Hill, 29 December, 2003.
- Christopher, M. *Logistics and supply chain management*, FT Prentice Hall, 1998.

Already included in the *Operations Management* course bibliography:

- Ritzman and Krajewski, *Foundations of operations management*, Prentice Hall 2003.
- Anupindi et al., *Managing business process flows*, Prentice Hall, 1999.
- Chase, Aquilano, and Jacobs, *Operations management for competitive advantage*, McGraw-Hill 2000.