

BAR-ILAN UNIVERSITY
Department of Management
Summer 2020

TOPICS IN SUPPLY CHAIN MANAGEMENT

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COURSE DESCRIPTION

Supply chain management has become a main driver for corporate economic performance. Choice of a geographical location, organization of a flow of operations, implementation of a supply program, management of inventory, optimization of product availability, design of a network in a supply chain, determination of a distribution route, etc. These are some of the concerns associated with supply chain management. This course aims to acquire tools to address some of these concerns. Each session will provide with simple analytical framework to optimize supply chain management decision-making.

This course has a dual purpose, namely:

- To identify the basic issues associated with supply chain management,
- To assimilate the main supply chain management tools.

The vocation of this course is essentially applicative. The implementation of quantitative supply chain management tools will be illustrated using spreadsheet exercises. In addition, a synthesis case will be submitted to the participants during the sixth session of the course.

CLASS FORMAT

Class sessions involve a mix of lectures and applications. During the first session, the main point will be to understand the very nature of supply chain management. The four subsequent sessions are devoted to a formal presentation of a specific methodology. The students will then be expected to perform computerized applications. The last session will focus on a case study.

EVALUATION

The work provided in this course is based on:

- Participation in the application sessions by pairs,
- Case study and presentation of the related conclusions by groups of students during the last lesson.

Grades will be based on the quality of the applications related to the following assignments:

- Application session 2	20%
- Application session 3	20%
- Application session 4	20%
- Application session 5	20%
- Case study session 6	20%

AGENDA

SESSION 1 – Supply chain inefficiencies and remedies *Thursday 07/02* *4:00*

In this session, we identify the main supply chain's inefficiencies and explain how the corporate performance may be improved by supply chain coordination initiatives.

SESSION 2 – Geographical location choice *Thursday 07/02* *4:00*

In this session, we describe the decision-making process for a geographical location and characterize some common approaches for location choice.

Application: Excel

SESSION 3 – Optimal level of product availability *Friday 07/03* *10:00*

In this session, we determine the optimal level of product availability in a supply chain. We also identify trade-offs that should be considered when dealing with product availability.

Application: Excel

SESSION 4 – Transportation issues *Thursday 07/10* *10:00*

In this session, we explain how transportation decision-making should take into account supply chain issues. We also provide with methodologies for routing in transportation networks.

- Application: Excel

SESSION 5 – The design of a network in a supply chain *Thursday 07/16* *4:00*

In this session, we develop a framework for optimizing network design decisions. The framework will prove to be useful to solving various network issues as facility location and capacity allocation decision.

- Application: Excel

SESSION 6 – Case study: The Poseidon adventure *Friday 07/17* *10:00*

Small groups of students will be assigned the design of a supply chain policy project during the first part of the session. A brief presentation of the project to the class is scheduled for the second part of the session.

- Application: Excel

REFERENCES

- CHOPRA, S. & MEINDL, P. - Supply Chain Management: Strategy, Planning and Operations, Pearson, 2016, 6th edition.
- CHRISTOPHER, M. G. - Logistics and Supply Chain Management, Pitman Publishing, 2011, 4th edition.
- SIMCHI-LEVI, D – Operations Rules: Delivering Customer Value through Flexible Operations, MIT Press, 2013.
- RUSSEL, R.S., TAYLOR, B.W. – Operations and Supply Chain Management, Wiley, 2013, 8th edition.