

SUPPLY CHAIN MANAGEMENT

Grado en Administración de Empresas / Bachelor in Business Administration BBA SEP-2023 SCM-NBA.3.M.A

Area Operations and Business Analytics

Number of sessions: 15

Academic year: 23-24

Degree course: THIRD

Number of credits: 3.0

Semester: 1º

Category: COMPULSORY

Language: English

Professor: **ANTONIO ZABALETA MORENO**

E-mail: azabaleta@faculty.ie.edu

ANTONIO ZABALETA MORENO

Adjunct Professor of Operations Management at IE Business School

Professor Zabaleta is a professional and a researcher in the financial services area with more than 20 years of experience in international banking. Executive MBA at IE Business School. Professor at IE Business School. Researcher on Business Process Management (Lean And Six Sigma). Master in research and PhD in Business at Universidad Autónoma de Madrid.

In the professional field, he is a Senior Manager, specialized in projects of different fields: Digital Banking, Innovation, Organization, Business Process Engineering, Operations, Efficiency; managing projects in the Financial Industry within an international scope (Spain, Mexico, South and Central America, United States, Turkey).

He is an expert in the application of Lean, Six Sigma, Business Process Engineering, Operations, Innovation and Project Management.

Academic Background

- International Executive MBA- IE Business School
- PhD in Business- Universidad Autónoma de Madrid.
- Master in research- Universidad Autónoma de Madrid
- Black Belt Six Sigma- Universidad Politécnica de Cataluña
- European Financial Advisor EFPA- EUROPEAN FINANCIAL PLANNING ASSOCIATION
- Graduate in Business- Universidad de Valencia
- Design Thinking ambassador- BBVA
- Agile ambassador- BBVA

Professional Background

- BBVA Senior Project manager- Business Project Engineering
- BBVA Senior Project manager- Digital Banking and Innovation
- BBVA Project Manager- Business Transformation

- BBVA Project Manager- Transformation, Productivity and New Business Models
- BBVA International Branch manager

Professor

- IE Business School. Project Management, Business Process Management, Innovation and Processes. Operations.
- Other Business Schools

Publications

- “Financial impact of Lean and Six Sigma in the European Banking Industry”
- “Impact on results of Business Process Management methodologies in the Global Financial System”
- Author of academic contents in Banking Management, Business Process Management, Operations and Project Management
azabaleta@faculty.ie.edu

SUBJECT DESCRIPTION

Supply Chain Management (SCM) is the business function that deals with the production and flow of information and material within and across organizations. It covers different areas such as controlling inventory, finding the most efficient transportation solution, determining an effective sourcing strategy, applying Lean concepts to Supply Chain, and Sustainability, among others.

?This course will help students understand various aspects of a Supply Chain. It will demonstrate how successful companies run their Supply Chain, the risks inherent in an SCM, and the competitive edge that an innovative SCM can provide. A well-managed Supply Chain will not only help a firm produce more effectively, but it can also provide a sustainable competitive edge. This course will also introduce various frameworks and tools to help future professionals make better decisions related to supply chain management.

LEARNING OBJECTIVES

- Understand how the various entities of a Supply Chain affect the production and delivery of goods.
- Learn various models and tools that will help them make better decisions.
- Study how companies have used Supply Chain to get a competitive edge.
- Learn the best practices and models to make the Supply Chains more sustainable.

TEACHING METHODOLOGY

IE University teaching method is defined by its collaborative, active, and applied nature. Students actively participate in the whole process to build their knowledge and sharpen their skills. Professor’s main role is to lead and guide students to achieve the learning objectives of the course. This is done by engaging in a diverse range of teaching techniques and different types of learning activities such as the following:

Learning Activity	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	40.0 %	30.0 hours
Discussions	13.33 %	10.0 hours
Exercises in class, Asynchronous sessions, Field Work	13.33 %	10.0 hours
Group work	20.0 %	15.0 hours
Individual studying	13.33 %	10.0 hours
TOTAL	100.0 %	75.0 hours

PROGRAM

SESSIONS 1 - 2 (LIVE IN-PERSON)

Sustainability Topics: Learn about introductory examples of sustainable supply chain management practices.

PART I: INTRODUCTION TO SUPPLY CHAIN MANAGEMENT

?INTRODUCTION

Learning Objectives:

- Discuss the goal of a supply chain and explain the impact of supply chain decisions on the success of a firm.
- Define the three key supply chain decision phases and explain the significance of each one.
- Describe the cycle and push/pull views along with the macro processes of a supply chain.
- Identify important issues and decisions to be addressed in a supply chain.
- Develop skills that employers have identified as critical to success in the workplace.
- The SCOR model

Sustainability Topics: Learn the importance of achieving supply chain fit between a company's supply chain strategy and its sustainability strategy.

PART I: INTRODUCTION TO SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN STRATEGY

Learning Objectives:

- Explain why achieving strategic fit is critical to a company's overall success.
- Describe how a company achieves a strategic fit between its supply chain strategy and its competitive strategy.
- Identify the main levers to deal with uncertainty in a supply chain.
- Discuss the importance of expanding the scope of strategic fit across the supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 1: Understanding the supply chain) (See Bibliography)

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 2: Achieving Strategic Fit in a Supply Chain) (See Bibliography)

Article: What Is the Right Supply Chain for Your Products? (HBR OnPoint Enhanced Edition) (HBS

SESSIONS 3 - 4 (LIVE IN-PERSON)

Sustainability Topics: Learn how to design the supply chain network to optimize overall supply chain cost while satisfying the environmental objectives (for example, minimizing the carbon footprint).

PART II: DESIGNING THE SUPPLY CHAIN

?DESIGNING THE SUPPLY CHAIN NETWORK

Learning Objectives:

- Understand the role of network design in a supply chain.
- Identify factors influencing supply chain network design decisions.
- Discuss a framework for making network design decisions.
- Develop an optimization model to design a regional network configuration.
- Develop an optimization model to identify potential sites in a region.
- Develop an optimization model to locate plants and allocate market demand.

Sustainability Topics: Understand how companies improve supply chain sustainability through supply chain coordination.

PART II: DESIGNING THE SUPPLY CHAIN

?COORDINATION AND THE BULLWHIP EFFECT IN SUPPLY CHAINS?

Learning Objectives:

- Describe supply chain coordination and the bullwhip effect, and their impact on supply chain performance.
- Identify obstacles to coordination in a supply chain.
- Discuss managerial levers that help improve coordination in a supply chain.
- Understand some practical approaches to improve coordination in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 5: Networking Design in the Supply Chain) (See Bibliography)

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 10: Coordination in a Supply Chain) (See Bibliography)

Article: The Bullwhip Effect in Supply Chains (HBS SMR029-PDF-ENG)

Games & Simulations: IE Supply Chain Simulation (OPE090090-U-ENG-HTML)

SESSION 5 (ASYNCHRONOUS)

Sustainability Topics: Understand how companies improve supply chain sustainability through supply chain coordination.

PART II: DESIGNING THE SUPPLY CHAIN

?COORDINATION AND THE BULLWHIP EFFECT IN SUPPLY CHAINS?

Learning Objectives:

- Describe supply chain coordination and the bullwhip effect, and their impact on supply chain performance.
- Identify obstacles to coordination in a supply chain.
- Discuss managerial levers that help improve coordination in a supply chain.

- Understand some practical approaches to improve coordination in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 10: Coordination in a Supply Chain) (See Bibliography)

Article: The Bullwhip Effect in Supply Chains (HBS SMR029-PDF-ENG)

Games & Simulations: IE Supply Chain Simulation (OPE090090-U-ENG-HTM)

SESSION 6 (LIVE IN-PERSON)

Sustainability Topics: Study how companies adopt sustainable transportation modes and networks for the environment.

PART III: MANAGING THE SUPPLY CHAIN

LOGISTICS IN SUPPLY CHAINS?

Learning Objectives:

- Understand the importance of logistics in supply chains.
- Study the role of different transportation modes in a supply chain.
- Discuss the role of infrastructure and policies in transportation.
- Identify the relative strengths and weaknesses of various transportation network design options.
- Understand some success factors in a responsive network for same day delivery.
- Evaluate trade-offs that shippers need to consider when designing a transportation network.
- Design tailored transportation networks in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 14: Transportation in a Supply Chain) (See Bibliography)

SESSION 7 (ASYNCHRONOUS)

Sustainability Topics: Study how companies adopt sustainable transportation modes and networks for the environment.

PART III: MANAGING THE SUPPLY CHAIN

LOGISTICS IN SUPPLY CHAINS?

Learning Objectives:

- Understand the importance of logistics in supply chains.
- Study the role of different transportation modes in a supply chain.
- Discuss the role of infrastructure and policies in transportation.
- Identify the relative strengths and weaknesses of various transportation network design options.
- Understand some success factors in a responsive network for same day delivery.
- Evaluate trade-offs that shippers need to consider when designing a transportation network.
- Design tailored transportation networks in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 14: Transportation in a Supply Chain) (See Bibliography)

Practical Case: Al-Kadi Commerce & Industry (OPE010045-U-ENG-HTM)

SESSION 8 (LIVE IN-PERSON)

Sustainability Topics: Study the importance of sustainable sourcing both in terms of environmental and social impacts.

?PART III: MANAGING THE SUPPLY CHAIN

PROCUREMENT AND SOURCING DECISIONS IN SUPPLY CHAINS?

Learning Objectives:

- Understand the importance of procurement in supply chains.
- Study the factors that affect the decision to outsource a supply chain function.
- Identify dimensions of supplier performance that affect total cost.
- Design a tailored supplier portfolio.
- Describe the impact of incentives on the behavior of third-parties in a supply chain.
- Discuss the benefits of sharing risk and reward in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 15: Sourcing Decisions in a Supply Chain) (See Bibliography)

SESSION 9 (ASYNCHRONOUS)

Sustainability Topics: Study the importance of sustainable sourcing both in terms of environmental and social impacts.

?PART III: MANAGING THE SUPPLY CHAIN

PROCUREMENT AND SOURCING DECISIONS IN SUPPLY CHAINS?

Learning Objectives:

- Understand the importance of procurement in supply chains.
- Study the factors that affect the decision to outsource a supply chain function.
- Identify dimensions of supplier performance that affect total cost.
- Design a tailored supplier portfolio.
- Describe the impact of incentives on the behavior of third-parties in a supply chain.
- Discuss the benefits of sharing risk and reward in a supply chain.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 15: Sourcing Decisions in a Supply Chain) (See Bibliography)

Practical Case: Global Supply Chain Management Simulation V2 (HBS 8623-HTM-ENG)

SESSION 10 (LIVE IN-PERSON)

Sustainability Topics: Learn the latest industry practices to understand the importance of sustainable supply chain management.

?PART IV: TRENDS IN SUPPLY CHAIN MANAGEMENT

SUSTAINABLE SUPPLY CHAINS CHAIN

Learning Objectives:

- Understand the importance of sustainability in a supply chain.
- Discuss the challenge to sustainability posed by the tragedy of the commons.
- Describe key pillars of corporate social responsibility.
- Identify opportunities for improved sustainability along various supply chain drivers.
- Understand the role of incentives and regulation for improved sustainability.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 17: Sustainability and the Supply Chain) (See Bibliography)

SESSION 11 (LIVE IN-PERSON)

Sustainability Topics: Study how reverse logistics have an environmental benefit as well as organizational competitiveness.

PART IV: TRENDS IN SUPPLY CHAIN MANAGEMENT

?REVERSE LOGISTICS

Learning Objectives:

- Understand the importance of reverse logistics for both sustainability and company's competitiveness.
- Identifying alternatives on how to efficiently reuse returned items and increase profitability by reducing material requirements.
- Understand how reusing rather than disposing of units can have an impact on increased loyalty, attract new customers and boost environmental image.
- To discuss the five major initiatives that define a reverse logistics program.

Article: Reverse Logistics Program Design: A company study (HBS BH317-PDF-ENG)

Practical Case: Snapdeal: A Nightmare or a Benefit in Reverse Logistics? (HBS W16882-PDF-ENG)

SESSION 12 (LIVE IN-PERSON)

Sustainability Topics: Learn how resilient supply chains deal with environmental challenges (for example, climate change) in global business environment.

PART IV: TRENDS IN SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN RISK AND RESILIENCE

Learning Objectives:

- Define relevant risks and explain different strategies that may be used to mitigate risk in global supply chains.
- Understand the basics of vulnerability assessment to deal with disruptions.

Book Chapters: Supply Chain Management: Strategy, Planning, and Operation (Chapter 6: Designing Global Supply Chain Networks, pp. 152-154; 157-161) (See Bibliography)

Article: Supply Chain View of the Resilient Enterprise (HBS SMR185-PDF-ENG)

SESSION 13 (LIVE IN-PERSON)

Sustainability Topics: Learn the latest technological advancements that support sustainable supply chains.

?PART IV: TRENDS IN SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN 4.0: THE FOURTH INDUSTRIAL REVOLUTION AND THE SUPPLY CHAIN

Learning Objectives:

- Understand the importance of the fourth industrial revolution.
- Learn how the emerging technologies support supply chain innovation.

SESSION 14 (LIVE IN-PERSON)

GROUP PROJECT?

SESSION 15 (LIVE IN-PERSON)

?FINAL EXAM

EVALUATION CRITERIA

It is a prerequisite that you must get a minimum grade of 4 in the final exam for it to be counted for the weighted average. Students getting final exam grades below 4 will get a failing grade in the course.

Group project members will be asked for peer review. As a result, if some members of the group contributed more, they will get a higher grade and those who didn't lower.

Your final grade in the course will be based on both individual and group work of different characteristics that will be weighted in the following way:

criteria	percentage	Learning Objectives	Comments
Final Exam	35 %	<ul style="list-style-type: none">- Understand how the various entities of a Supply Chain affect the production and delivery of goods.- Learn various models and tools that will help them make better decisions.- Study how companies have used Supply Chain to get a competitive edge.- Learn the best practices and models to make the Supply Chains more sustainable.	The Final Exam will take place in the last session. It will cover all the topics in class (cumulative).

Group Work	25 %	<ul style="list-style-type: none"> - Understand how the various entities of a Supply Chain affect the production and delivery of goods. - Learn various models and tools that will help them make better decisions. - Study how companies have used Supply Chain to get a competitive edge. - Learn the best practices and models to make the Supply Chains more sustainable. 	<p>Group work includes two group activities: GROUP PAPER (15%) and GROUP PRESENTATION (10%) It is expected that every member contributes equally. The professor will provide more information during the course.</p>
Class Participation	30 %	<ul style="list-style-type: none"> - Understand how the various entities of a Supply Chain affect the production and delivery of goods. - Learn various models and tools that will help them make better decisions. - Study how companies have used Supply Chain to get a competitive edge. - Learn the best practices and models to make the Supply Chains more sustainable. 	<p>Becoming involved in the discussions or adding relevant ideas will enrich the classroom and help you to further develop your ability to articulate your thoughts. The classroom setting gives you a safe environment to share your thoughts. Class participation will be assessed by the quality and frequency of the contribution. Talking in class, tardiness, and leaving the class before it ends will negatively affect the participation grade.</p>

Individual Work	10 %	<ul style="list-style-type: none"> - Understand how the various entities of a Supply Chain affect the production and delivery of goods. - Learn various models and tools that will help them make better decisions. - Study how companies have used Supply Chain to get a competitive edge. - Learn the best practices and models to make the Supply Chains more sustainable. 	There will be three (3) short individually graded assignments. Sessions 5,7,9
-----------------	------	---	---

RE-SIT / RE-TAKE POLICY

Each student has four (4) chances to pass any given course distributed over two (2) consecutive academic years. Each academic year consists of two calls: one (1) ordinary call (during the semester when the course is taking place); and one (1) extraordinary call (or “re-sit”) in June/July.

Students who do not comply with the 70% attendance requirement in each subject during the semester will automatically fail both calls (ordinary and extraordinary) for that Academic Year and have to re-take the course (i.e., re-enroll) during the next Academic Year.

The Extraordinary Call Evaluation criteria will be subject to the following rules:

- Students failing the course in the ordinary call (during the semester) will have to re-sit evaluation for the course in June / July (except those students who do not comply with the attendance rule, and therefore will not have that opportunity, since they will fail both calls and must directly re-enroll in the course during the next Academic Year).
- It is not permitted to change the format nor the date of the extraordinary call exams or deadlines under any circumstance. All extraordinary call evaluation dates will be announced in advance and must be taken into consideration before planning the summer (e.g. internships, trips, holidays, etc.)
- The June/July re-sit will consist of a comprehensive evaluation of the course. Your final grade for the course will depend on the performance in this exam or evaluation only. I.e., continuous evaluation over the semester (e.g. participation, quizzes, projects and/or other grade components over the semester) will not be taken into consideration on the extraordinary call. Students will have to achieve the minimum passing grade of 5 and the maximum grade will be capped at 8.0 (out of 10.0) – i.e., “notable” in the extraordinary call.
- Re-takers: Students who failed the subject on a previous Academic Year and are now re-

enrolled as re-takers in a course will need to check the syllabus of the assigned professor, as well as contact the professor individually, regarding the specific evaluation criteria for them as re-takers in the course during that semester (ordinary call of that Academic Year). The maximum grade that may be obtained as a retaker during the ordinary call (i.e., the 3rd call) is 10.0 (out of 10.0).

After exams and other assessments are graded by the professor (on either the ordinary or extraordinary call), students will have a possibility to attend a review session (whether it be a final exam, a final project, or the final overall grade in a given course). Please be available to attend the session in order to clarify any concerns you might have regarding your grade. Your professor will inform you about the time and place of the review session.

Students failing more than 18 ECTS credits after the June/July re-sits will be asked to leave the Program. Please, make sure to prepare yourself well for the exams in order to pass your failed subjects.

In case you decide to skip the opportunity to re-sit for an exam or evaluation during the June/July extraordinary call, you will need to enroll in that course again for the next Academic Year as a re-taker and pay the corresponding tuition fees. As you know, students have a total of four (4) allowed calls to pass a given subject or course, in order to remain in the program.

BIBLIOGRAPHY

Compulsory

- Sunil Chopra. *Supply Chain Management: Strategy, Planning, and Operation*. 7th Edition. Pearson. ISBN 9781292257891 (Printed)

Recommended

- Nigel Slack and Alistair Brandon-Jones. (2018). *Operations and Process Management*. 5th. Pearson. ISBN 9781292176130 (Digital)

BEHAVIOR RULES

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

ATTENDANCE POLICY

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

ETHICAL POLICY

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.

