



[OM] OPERATIONS MANAGEMENT

Introduction

Operations Management is about the way organizations produce goods and services. Everything you wear, eat, sit on, use, read or knock about on the sports field comes to you courtesy of the operations managers who organized its production. Every book you borrow from the library, every treatment you receive at the hospital, every service you expect in the shops and every lecture you attend at university—all have been produced. While the people who supervised their “production” may not always be called operations managers, this is what they really are.

Slack et al. (Third Edition, 2001)

Good operations management make it possible for our companies to create and deliver value to customers without compromising their sustainability. Rather than focusing on ‘what’ our organizations do, operations concentrates on ‘how’ we do it.

Two important levers drive operational excellence: the lever of *efficiency*—as measured in terms of cost, productivity, quality, etc.—and the lever of *effectiveness*—as measured in terms of lead-time, customization, flexibility, etc. We need both: it is irrelevant to excel at delivering a product (or service) nobody cares about; similarly, it is pointless to manage a mediocre execution for the most demanded product (or service) in the market. A good operations manager is hence one that is able to strike an adequate tradeoff between efficiency and effectiveness. How to achieve balance among these two factors is the central topic of this course.

Objectives

In this course we will review key aspects of business processes in order to get fully acquainted with the fundamental variables, concepts, and tools to assess, manage, and improve those processes. We will study some company examples which have tried to do real operational innovation and see what learning we can take out of it. Apart from the cases, we will use also exercises, simulation games, and lectures. In particular, we will focus on:

- The design and analysis of business processes—i.e., how to design tasks to add value.
- Capacity and lead-time decisions—i.e., what resources and technologies do we need to operate.
- The impact of operational decisions on the long-term profitability of a company—i.e., how to leverage operations to hedge risks, generate a competitive advantage, and innovate.

Learning Outcomes

In the cases selected we cover different kinds of business operations. The concepts presented are applicable to an infinite number of situations. After this course, you will be able to make a critical analysis of the operations of a company or of the operations you encounter in your daily life. In particular, you will be able to...

- Understand the fundamental concepts of any business process: throughput, throughput time, work in process, and the relationship between the three.
- Analyze a business process through capacity analysis.
- Identify the bottleneck of a system.
- Implement continuous improvement efforts.

Competences

General competences

- To explain and discuss business situations in a rigorous, effective way using both formal and informal procedures, and providing relevant information to support your observations and conclusions.
- To work on a team in multicultural business environments, inspiring trust in colleagues and partners, commitment to achieving the objectives, and delegating tasks and decisions.
- 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 understand the operational rational behind a successful business process.
- To optimize operations systems and logistics chains with special attention to processes, queues, and inventory management.
- To make operational decisions to achieve the goal of process improvement.

Content

The course is divided into three parts (details to follow):

1. Preparation

This course requires the use and understanding on some basic methodological tools for analyzing process capacity and waiting phenomena. I will provide some technical notes to help you understand the concepts and theory behind each methodology. These are not required readings but they provide useful frameworks and references.

We will start with an online session explaining basic capacity and process analysis.

2. On-campus

We will enjoy seven sessions together during your stay. Here a brief description of what we will cover:

- Process analysis
- Aggregate planning and input/output curves
- Process innovation
- Lean management and continuous improvement

3. Consolidation

This segment is designed to reinforce and practice the concepts and tools used in the face-to-face sessions. You will work individually in a take-home, hands-on exam.

Methodology

This course combines cases, simulation games, and lectures.

The case method will be used throughout the course. Everybody should be ready to (and is expected to) contribute to the quality of the discussion. While you are not expected to have always the right answer (such a thing does not even exist sometimes), you should at least have a thoughtful one.

The course materials will be distributed in the online course package that contains the cases, the technical notes, and some supplementary readings. No textbook is required, but the following books may prove useful as future reference (probably after the GEMBA when you have a bit more time):

- Operations Management for Executives, Moscoso and Lago, McGraw Hill 2017
- Managing Business Process Flows, Anupindi et al., Prentice Hall, 2011.

Evaluation

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

Class participation: 40%

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 you.

In order to assist you in the case preparation, I include later in this syllabus 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.

Team report: 20%

You will have to submit —via Global Campus— a team report with your recommendation regarding one of the cases (Edentel). I expect an Executive Summary covering the preparation guidelines of the session in a **one pager in pdf format** (although you can include tables and other exhibits in an Appendix). The report should read well, contain all (and only) relevant aspects of the decision addressed, and be explicit about recommendations.

Post-residential activity: 40%

You will face a replica of the team report, this time performed individually, on a real case that I will distribute in due time. You will have ample time (i.e., one week) to go through the case and provide your clear recommendations, for which you will be able to consult your notes and all

the course materials. Again, I will ask you to submit via Global Campus a **onepager in pdf format** (although you can include tables and other exhibits in an Appendix). My evaluation of your deliverable will consider the structure of your report, the clarity and the robustness of your analysis and recommendations.