

Prof. Víctor Martínez de Albéniz

Professor of Production, Technology and Operations Management

OPERATIONS STRATEGY

Introduction

The global business environment is undergoing the process of digitalization. But this is only the beginning: global value chains will soon benefit from Industry 4.0 (called Internet of Things in North America) which will accelerate processes, increase agility while liberating liquidity and redistributing parts of global manufacturing.

For companies to benefit from these opportunities (and overcome the connected challenges), they must have a good understanding of their Operations Strategy: which type of assets are best suited - and how to best use them to achieve the goals set forth by their business strategy. Their Operations Strategy will be driven by the ability to nimbly identify market opportunities and subsequently seize these opportunities by being flexible in terms of time (responding to demand swings and/or disruptions), scope (need for flexible production facilities in terms of product type) and scale (need for responsive ramp-up or ramp-down of capacity).

Objectives

The objective of the course Operations Strategy is to develop an understanding of how to use a company's resources (both fixed assets and management thereof) in the most efficient way to achieve the goals defined by its business strategy, i.e., achieve strategic coherence.

Learning Outcomes

We will discuss the key decision categories of operations strategy (both structural, i.e. asset-related, and infrastructural, i.e., process-related) and see how they can be used to shape the operations of a company. The ultimate goal will always be to achieve coherence between a company's business strategy and its operations. We will use a framework of Operations Strategy originally developed by Hayes, Pisano, Upton and Wheelwright and apply this framework to a collection of case studies – as well as a course project.

Competences

- Students should know how to apply the knowledge acquired and their problem-solving capacity in new and little-known settings within broader (or multidisciplinary) contexts related to their area of study.
- Applying a structured, sound process in the analysis of business situations and decision making that includes the following phases: diagnosis of the problem, selection of criteria, identification of alternatives, weighted analysis and selection of an alternative with its corresponding plan of action.
- Understanding and using criteria to apply quantitative analysis and decision-making tools.
Understanding the assumptions implicit in models, as well as the limitations and risks involved when models are put into practice.
- Develop an analysis of a real-life business problem and present the resulting insights to company VIPs in a professional way
- Implementing product-delivery strategies and services that include all the stakeholders in the production chain: suppliers, manufacturers, distributors and customers.

Content

In order to achieve strategic coherence (i.e., alignment between functional areas and the objectives of a company's strategy), one has to start with clear understanding of how a firm chooses to differentiate its products and services from those of its major competitors. From an operations perspective, the relevant product/service attributes are: **cost, quality, availability, features/innovativeness and environmental performance**. Companies within a given sector usually choose one or two of these attributes to focus on. Once a company has gone from defining its competitive strategy (i.e., how to differentiate its products and services from its competitors) to identifying key product or service attributes (i.e., cost, availability, etc.), it has to develop an operations strategy to achieve these goals.

Operations Strategy is defined by making choices that are aligned with a firm's competitive strategy in several decision categories. These decision categories can be grouped in two classes: **Structural decisions** are decisions that modify the brick-and-mortar structure of a company. They typically require substantial **capital investments** and are not easy to reverse. They form the "**hardware**" of operations strategy. **Infrastructural decisions** are about how to manage the structural aspects of the firm. They are the "**software**" of the firm. These decisions frequently do not require a lot investment to be implemented, but can take time to be developed. Each session of this course will address one particular element of the structural and infrastructural decision categories (e.g., vertical integration or sourcing etc.).

Methodology

This course will be taught using lectures, case discussions and a course project. Students are expected to come to class prepared, having read the case and accompanying material.

Evaluation

Students will be evaluated along the following dimensions:

- participation (30%)
- best 2 of 4 quizzes (30%) and
- team course project (40%).

Class participation and the quiz grade will be individual grades, the team project grade will be given to the whole team. There will be no midterm or final exam in this course.

Professor's Biography



Prof. Victor Martínez de Albéniz

Professor of Production, Technology and Operations Management

Víctor Martínez de Albéniz is a full professor in IESE's Department of Production, Technology and Operations Management. He is currently serving as department head. He joined IESE in 2004 after earning a Ph.D. at the Operations Research Center of the Massachusetts Institute of Technology (MIT) and an engineering degree at École Polytechnique in France.

His research focuses on supply chain management, where procurement, production and distribution decisions can help companies compete more successfully in the global arena. He started his career working on procurement and supply issues, where a balanced sourcing portfolio can provide low cost, flexibility and innovation opportunities.

He has spent the last decade working on retail topics, where he has developed models for fashion trends (apparel, music, etc.) and optimized operations in volatile markets. He runs a yearly Fashion Operations conference that gathers leading academics and practitioners to discuss future trends in retailing.

His work has been published in journals such as Management Science, Operations Research, Manufacturing and Services Operations Management, or Production and Operations Management. He has received support by the European Research Council (ERC) and in 2015 was awarded the Sabadell Herrero prize for Economic Research. He is also a member of the editorial boards of Manufacturing and Services Operations Management, and Production and Operations Management.

In addition, Prof. Martínez de Albéniz teaches IESE courses on operations management, operations strategy, advanced methods for operations and new product development, both at the executive and MBA levels. He has also taught at other schools such as MIT, MDE (Côte d'Ivoire) or the Indian School of Business.