

ESSENTIAL OPERATIONS MANAGEMENT

Second Edition

Chapter Learning Objectives

Click on the links that follow to access the objectives for each chapter of the book

PART ONE – INTRODUCTION

[1 Managing Operations](#)

[2 Operations Strategy](#)

PART TWO – DESIGNING AND DELIVERING SERVICES AND PRODUCTS

[3 Designing and Delivering Services and Products](#)

[4 Delivering Services](#)

[5 Making Products](#)

[6 Location and Layout](#)

PART THREE – MANAGING OPERATIONS

[7 Managing Capacity](#)

[8 Scheduling and Executing Operations](#)

[9 Managing Inventory](#)

[10 Managing Quality](#)

[11 Managing the Supply Chain](#)

PART FOUR – IMPROVING OPERATIONS

[12 Improving Operations](#)

Chapter 1: Managing operations

After completing this chapter, you should be able to:

- **Explain** the role of operations management in an organization
- **Appreciate** the dimensions that make up the operations management task
- **Identify** where the operations function fits within an organization
- **Illustrate** the crucial role of operations management in organizational success
- **Understand** how companies must integrate corporate social responsibility with their business operations
- **Appreciate** how the chapters that follow will help you build your operations management knowledge

[Back to top](#)

Chapter 2: Operations Strategy

After completing this chapter, you should be able to:

- **Appreciate** how, in large organizations, strategy has evolved into three levels – corporate, business unit and functional
- **Distinguish** between an executive's day-to-day and strategic roles
- **Identify** how business unit and functional strategies interface with each other
- **Appreciate** why the critical first step in developing a functional strategy is agreeing the order-winners and qualifiers for the different markets in which a business competes
- **Understand** the strategic mix within most organizations of being both market-driven and market-driving
- **Develop and implement** an operations strategy

Chapter 3: Designing Services and Products

After completing this chapter, you should be able to:

- **Appreciate** the key role of new service and product development as the lifeblood of an organization
- **Identify** the alternative strategies in service and product innovation
- **Differentiate** between long-term and tactical programmes
- **List the steps** involved in designing and developing resources and products
- **Recognize and use the insights** that can be gained by placing services or products into the correct positions on their respective life cycles and into the portfolio analysis grid
- **Select from and use** a range of techniques and approaches related to design.
- **Understand** how environmental and social impact should factor in design decisions according to an organization's corporate social responsibility agenda

Chapter 4: Delivering Services

After completing this chapter, you should be able to:

- **Recognize** the technical and business requirements that need to be met when delivering services
- **Identify** the distinctive characteristics of service operations
- **Understand** the difference between categories of service and types of service delivery system

- **Explain the approach** to the overall design of service delivery systems
- **List the key phases** in the detailed design of service delivery systems
- **Give examples** of the impact of IT on the design of service delivery systems

[Back to top](#)

Chapter 5: Making Products

After completing this chapter, you should be able to:

- **Recognize** the technical and business requirements when making products
- **Describe** the manufacturing process decision and how it is influenced by the volume of demand
- **Define the different types** of manufacturing process – project, jobbing, batch, line and continuous processing
- **Identify the difference** between categories of product and types of manufacturing process
- **Appreciate** the key business implications of the types of manufacturing process
- **Explain** why hybrids such as cells may be introduced

[Back to top](#)

Chapter 6: Location and Layout

After completing this chapter, you should be able to:

- **Recognize** the levels at which decisions about location must be made, and the background issues that affect the choice of location for a facility or outlet
- **Describe** the various techniques for choosing a location and explain how they work
- **Outline** the factors that influence the choice of layout and the key features of each of the basic types of layout, as well as the layouts for hybrid delivery systems
- **Explain** the process of layout design

[Back to top](#)

Chapter 7: Managing Capacity

After completing this chapter, you should be able to:

- **Understand** the nature of capacity and the mix of resources involved
- **Appreciate the purpose** of managing capacity and the impact of having too little and too much capacity
- **Explain** how to define and measure capacity in different organizations
- **Appreciate the differences** between capacity, utilization and efficiency
- **Understand** the factors involved in determining the level of capacity required
- **Appreciate** the demand-related and capacity-related issues of determining capacity levels
- **Explain** the steps in capacity planning
- **Recognize** the key factors in managing demand and capacity

[Back to top](#)

Chapter 8: Scheduling and Executing Operations

After completing this chapter, you should be able to:

- **Appreciate** the key role of operations scheduling within a business
- **Recognize** the different types of operations scheduling system and for which businesses each is appropriate
- **Formulate** a simple bar chart and network analysis
- **Explain the elements** of a material requirements planning system
- **Appreciate** how manufacturing resource planning and enterprise resource planning have developed and how they supplement a material requirements planning system
- **Explain** how enterprise resource planning works
- **Understand** the just-in-time approach both in terms of its role as a scheduling system and as a philosophy of operations management
- **Understand** how optimized production technology works

[Back to top](#)

Chapter 9: Managing Inventory

After completing this chapter, you should be able to:

- **Explain** the different types of inventory and their roles
- **Show** the presence of the different types of operations inventory in manufacturing processes and service delivery systems
- **Review** the approaches to address the key inventory questions relating to:
 - What items to hold in stock
 - How much to hold, and how much and when to order

- **Examine** the different inventory systems and identify which should be used for different types of business
- **Understand** how to analyze inventory in order to keep levels to a minimum

[Back to top](#)

Chapter 10: Managing Quality

After completing this chapter, you should be able to:

- **Explain** what quality is and why it is important
- **Understand** the stages involved in managing quality conformance
- **Apply alternative tools and techniques** to improve quality conformance
- **Critically evaluate** the quality conformance levels within an organization and suggest improvements
- **Understand** the alternative approaches to managing quality
- **Propose and substantiate** quality improvements within a given operational context

[Back to top](#)

Chapter 11: Managing the Supply Chain

After completing this chapter, you should be able to:

- **Define** what a supply chain is and outline the steps that make up the chain
- **Explain the factors** that affect the design of a supply chain, including the decision to make or buy, the alternatives to making or buying

and the issues surrounding outsourcing, both domestically and offshore

- **Understand** the strategic factors driving the trend towards inshoring or reshoring manufacturing tasks or service provisions which had previously been outsourced
- **Understand** the processes of managing and developing supply chains, and the techniques used in these approaches
- **Outline the benefits** of effectively managing supply chains

[Back to top](#)

Chapter 12: Improving Operations

After completing this chapter, you should be able to:

- Explain why companies need to improve their operations
- Understand how operations can be improved to release cash, improve market support and reduce costs
- Apply alternative improvement approaches, tools and techniques to identify improvement opportunities within a company
- Critically evaluate the differing improvement approaches used by organizations
- Understand the alternative approaches to making improvements
- Propose and substantiate improvements within a given operational context

[Back to top](#)
