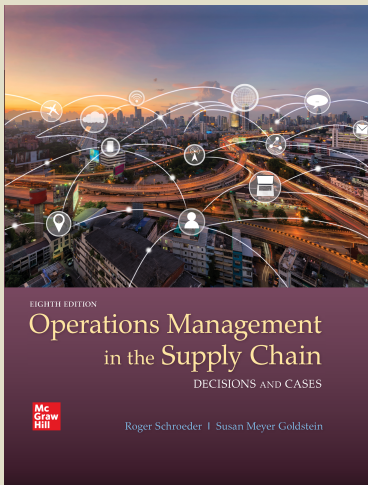


List of Changes



Operations Management in the Supply Chain: Decisions & Cases

8e

Roger Schroeder, M. Johnny Rungtusanatham,
Susan Goldstein

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Appropriate for both undergraduates and MBA students, *Operations Management in the Supply Chain: Decisions and Cases, 8e* is a guide to operations that takes a unique approach to decision making with a strong emphasis on case materials to put concepts into practice. It provides a balanced treatment of both service and manufacturing firms in a fully updated 4 color revision with modern real-world topics, more Connect content and case solutions. This is the first book to include cross functional decision making for non-majors. In addition, current knowledge is included on global operations, supply chain management, competency-based strategy, Six Sigma, lean systems, artificial intelligence, analytics, sustainability, supply chain risk, and digital technology content like 3D printing and blockchain. Enhanced Connect content includes, SmartBook 2.0, *OMintheNews*, Practice Operations, and Interactive Data Problems designed to help students visualize key concepts.

SEE LIST OF CHANGES ATTACHED.

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Changes to Schroeder: Operations Management in the Supply Chain, 8e

KEY CHANGES IN THE EIGHTH EDITION

This book is known for its decision orientation and case studies. We have strengthened the decision-making framework by adding new material on digital technology, lean systems, sustainability, and global supply chains. We also include new and existing cases to address these decisions. The Eighth Edition features a new 4-color design and the following major changes:

1. Cross-functional. Most books for operations and supply chain core courses are merely summaries for majors in operations and supply chain management. None address the general business student who is interested in Marketing, Finance, Accounting, or Information Systems. We make this book more applicable and interesting to the approximately 80 percent of business students who don't major in operations and supply chain management. We add cross-functional materials in each chapter to show how the topics apply to non-majors. The handshake symbols in the margin identify the content.

2. Digital Technology. The Eighth Edition has substantial updates and additions on four digital technologies. 3D printing is becoming useful for producing spare parts, custom manufacturing, medical devices, dental implants, and architectural models. Blockchain software is being developed and tested by many global logistics companies. Artificial intelligence is rapidly developing for service applications, automobiles, and manufacturing plants. Analytics is being applied to both large and small databases. Analytics that are descriptive, predictive or prescriptive in nature are discussed. These digital technologies are described in detail in several chapters in the book.

3. Supply Chain Sustainability. We introduce the idea of the triple bottom line regarding environmental, social, and economic sustainability. Sustainability is preserving the earth and resources for future generations. Environmental sustainability is related to global warming, clean water, clean air, and environmental protection. Social sustainability means hiring a diverse workforce, ethical practices, providing equal opportunity, and safe working conditions, for example. Economic sustainability is making a sufficient profit for the firm's survival in the future. Operations and supply chain managers are actively pursuing sustainability of operations and associated supply chains.

4. Global Supply Chains. In this new edition we have increased our attention to global supply chains by adding new sections on global services, global sourcing, and global logistics. The text explains how to make global decisions that balance the lower costs of overseas sourcing and logistics with the risks of quality failures, loss of intellectual property, increased monitoring costs, and exposure to financial and political risks.

5. Lean Systems. Most books discuss up to 15 techniques of lean including reduced setup time, small lot sizes, uniform load, and takt time. We have completely reorganized the lean chapter around the five tenets and principles of lean systems to include all of these techniques. This clarifies the thinking behind lean systems in terms of creating value for the customer, eliminating waste, ensuring flow, customer pull, and striving for perfection.

6. Practical Examples. The text contains over 70 practical examples of concepts, ideas and analytics. Nineteen new Operations Leader boxes have been added for companies including Southwest Airlines, Lego Group, Culvers, Nike, Hostess Brands, Ikea, Procter & Gamble, LG Electronics, and Trader Joe's. Twenty-five existing Operations Leader boxes have been updated including Dell, Under Armour, Toyota, Harrah's, BMW, Target, 3M Canada, Apple, Boeing, Cisco, Cargill, and DC Comics. Over 30 examples are included in the various chapters. The Amazon revolution in supply chain management is included as an example and a case study.

7. Learning Enrichment boxes. Every chapter ends with a Learning Enrichment box for student self-study or instructor assignments. These boxes have YouTube video links and websites that expand on the coverage in

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the chapter. They cover ideas from the chapter in more detail or provide examples of the how the ideas are used. This is one of the first books to make extensive use of the Internet to enrich the material covered in the text.

CHAPTER REVISIONS AND CASES FOR THE EIGHTH EDITION

Chapter 1: Introduction to Operations

- The first part of the chapter is rewritten to clearly define operations and supply chain management.
- A new section is provided to explain the role of operations in the firm and the economy including productivity calculations.
- The triple bottom line is defined for environmental, social, and economic sustainability.
- Internet links are provided in the Learning Enrichment box on sustainability and globalization.

Chapter 2: Operations and Supply Chain Strategy

- A new Operations Leader box on Southwest Airlines is added.
- Sustainability, as an objective, is added to cost, quality, delivery and flexibility.
- Emphasis is placed on decision making in operations that is contingent on strategy.

Chapter 3: Product Design

- New content is added on the use of 3D printing for creating prototypes.
- Concurrent engineering is illustrated using a new example from NASA.
- New Operations Leader boxes describe how The LEGO Group tackles challenging product design issues and how TPI Composites is developing and manufacturing blades for wind turbine energy systems.

Chapter 4: Process Selection

- There is a new example of focused operations in a service firm, Midwest Orthopedic Specialty Hospital.
- Two new Operations Leader boxes describe the food production system at Culver's and mass customization at Nike.
- We also expand on the role of 3D printing in modern manufacturing, particularly in the medical sector.

Chapter 5: Service Process Design

- The relevance of service operations to non-majors is added.
- A new Operations Leader box on the City of Fort Collins is added.
- This edition is the first to offer a new section on Technology for Services and a new section on Globalization of Services.

Chapter 6: Process-Flow Analysis

- Cross-functional material is added to show its importance to systems thinking.
- A new Operations Leader box is provided on process analysis to improve clinical drug trials.
- A Learning Enrichment box is included with YouTube videos and Internet links on process mapping, Little's Law, and queueing at Disney.

Chapter 7: Lean Thinking and Lean Systems

- This chapter is completely reorganized around the five lean tenets to clarify the principles and concepts underlying lean thinking.
- New material is added on cellular manufacturing and the pull system.
- The chapter is the first to take a principle and conceptual approach to lean systems, rather than a listing of techniques and methods used.

Chapter 8: Managing Quality

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- YouTube videos are added to the Learning Enrichment box to expand on ISO9000 certification, mistake proofing, and Baldrige for health care.
- Quality is expanded to include the entire supply chain, not just the focal firm.
- The highly cross-functional nature of quality is emphasized.

Chapter 9: Quality Control and Improvement

- We explain why all business students should learn about quality control.
- The difference between special causes and common causes is emphasized.
- We clarify the differences between statistical process control and process capability.
- The section on Six Sigma was rewritten to expand the content.

Chapter 10: Forecasting

- We shift our description of forecasting to “analytics” so that students can understand how the popular focus on analytics is utilized in operations and supply chain.
- There is a new section on Big Data and its use in forecasting, along with a new Operations Leader box on how Amazon uses big data in its own forecasting.
- When and how to use MADt is clarified, in addition to many minor clarifications in using formulas throughout the chapter.

Chapter 11: Capacity Planning

- We expanded discussion about how all functions are involved in and impacted by capacity planning.
- Improvements in the descriptions of Sales and Operations Planning (S&OP) as well as aggregate planning help to clarify for students the process involved and the challenges faced.
- Calculations for level and chase strategies are further clarified.
- New Operations Leader boxes on Delta Airlines and Hostess Brands help to make these concepts tangible for students.

Chapter 12: Scheduling Operations

- We added new material on the theory of constraints about how to identify the bottleneck constraint and eliminate it while subordinating everything else.
- In the Learning Enrichment box interesting YouTube videos are provided on job shop scheduling at Washburn Guitar, round-robin CPU scheduling and the theory of constraints.

Chapter 13: Project Planning and Scheduling

- The chapter has been updated to illustrate the many industry settings in which projects require skilled management—from manufacturing to service firms, nonprofits, and government.
- A new Operations Leader box on the Carlsbad Desalination Plant in San Diego provides a nice example of a major multi-government project.
- Other updates include the Project Management Institute’s Body of Knowledge in Table 13.3.

Chapter 14: Independent Demand Inventory

- The chapter includes additional content on vendor managed inventory (VMI), along with a new Operations Leader box illustrating VMI at Procter and Gamble Co.
- An additional new Operations Leader box on IKEA describes the use of a min/max inventory replenishment system.
- The Learning Enrichment box at the end of the chapter provides video and web sources for additional information.

Chapter 15: Materials Requirements Planning and ERP

- We clarify for students exactly which elements constitute the MRP system.

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- We also describe the use of Oracle's ERP software at the Cleveland Clinic to help students understand the breadth of these system's use in industry.
- A new Operations Leader box on LG Electronics provides a useful illustration of how a global firm benefits from these systems.

Chapter 16: Supply Chain Management

- This is one of the first books to have a separate section on blockchain technology to explain its uses and methods.
- More details are also provided on the SCOR model.
- We rewrote the section on measures of throughput time, cash-to-cash cycle time and total delivered cost for analyzing an entire supply chain.
- We added a new section on the Amazon effect and omni-channel marketing, also a first in textbooks.

Chapter 17: Sourcing

- The chapter includes an entirely new section on Global Sourcing, including discussion of risks and benefits.
- Presentation of Total Cost Analysis is expanded.
- A new Operations Leader box on Trader Joe's sourcing strategy will appeal to students.

Chapter 18: Global Logistics

- A new section on Global Logistics includes a new figure to illustrate the multimodal activities in global supply chains.
- The concepts of intermodal and shipping zones have been added and described.
- A new Operations Leader box on Home Depot provides insight on how online sales are served from stores and warehouses, while an expanded box on Ryder gives students a glimpse of the people and assets needed for this major 3PL provider.

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