

清华管理学系列英文版教材

PEARSON

供应链管理 战略、计划和运作

Supply Chain Management
Strategy, Planning, and Operation

Fifth Edition

[美] 苏尼尔·乔普拉 (Sunil Chopra) 著
彼得·迈因德尔 (Peter Meindl)

第5版

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简 明 目 录

第 1 部分 构建分析供应链的战略框架	
第 1 章 了解供应链	13
第 2 章 供应链绩效:实现战略匹配与战略范围	31
第 3 章 供应链驱动因素与衡量指标	50
第 2 部分 设计供应链网络	
第 4 章 分销网络的设计及其在网络销售中的应用	80
第 5 章 供应链的网络设计	120
第 6 章 设计全球供应链网络	155
第 3 部分 计划并协调供应链中的供给与需求	
第 7 章 供应链中的需求预测	190
第 8 章 供应链的综合计划	223
第 9 章 销售与运作计划:规划供应链中的供求	246
第 10 章 供应链中的协调	262
第 4 部分 计划并管理供应链中的库存	
第 11 章 供应链的规模经济管理:周转库存	283
第 12 章 供应链的不确定性管理:安全库存	326
第 13 章 确定产品的最优可获得性水平	370
第 5 部分 设计并计划运输网络	
第 14 章 供应链中的运输	409
第 6 部分 管理供应链中的跨职能驱动因素	
第 15 章 供应链的采购决策	440
第 16 章 供应链的定价和收入管理	478
第 17 章 供应链的信息技术	500
第 18 章 可持续性与供应链	512
索引	522

CONTENTS

Part I Building a Strategic Framework to Analyze Supply Chains

Chapter 1 UNDERSTANDING THE SUPPLY CHAIN 13

- 1.1 What Is a Supply Chain? 13
- 1.2 The Objective of a Supply Chain 15
- 1.3 The Importance of Supply Chain Decisions 16
- 1.4 Decision Phases in a Supply Chain 18
- 1.5 Process Views of a Supply Chain 20
- 1.6 Examples of Supply Chains 25
- 1.7 Summary of Learning Objectives 29
 - Discussion Questions* 29 • *Bibliography* 30

Chapter 2 SUPPLY CHAIN PERFORMANCE: ACHIEVING STRATEGIC FIT AND SCOPE 31

- 2.1 Competitive and Supply Chain Strategies 31
- 2.2 Achieving Strategic Fit 33
- 2.3 Expanding Strategic Scope 44
- 2.4 Challenges to Achieving and Maintaining Strategic Fit 46
- 2.5 Summary of Learning Objectives 48
 - Discussion Questions* 48 • *Bibliography* 49

Chapter 3 SUPPLY CHAIN DRIVERS AND METRICS 50

- 3.1 Financial Measures of Performance 50
- 3.2 Drivers of Supply Chain Performance 53
- 3.3 Framework for Structuring Drivers 55
- 3.4 Facilities 56
- 3.5 Inventory 59
- 3.6 Transportation 61
- 3.7 Information 63
- 3.8 Sourcing 66
- 3.9 Pricing 68
- 3.10 Summary of Learning Objectives 70
 - Discussion Questions* 71 • *Bibliography* 71
 - ▶ **CASE STUDY:** Seven-Eleven Japan Co. 72
 - ▶ **CASE STUDY:** Financial Statements for Wal-Mart Stores Inc. 78

Part II Designing the Supply Chain Network

- Chapter 4 DESIGNING DISTRIBUTION NETWORKS AND APPLICATIONS TO ONLINE SALES 80**
- 4.1 The Role of Distribution in the Supply Chain 80
 - 4.2 Factors Influencing Distribution Network Design 81
 - 4.3 Design Options for a Distribution Network 85
 - 4.4 Online Sales and the Distribution Network 98
 - 4.5 Distribution Networks in Practice 111
 - 4.6 Summary of Learning Objectives 112
 - Discussion Questions 113 • Bibliography 113*
 - ▶ **CASE STUDY:** Blue Nile and Diamond Retailing 114
- Chapter 5 NETWORK DESIGN IN THE SUPPLY CHAIN 120**
- 5.1 The Role of Network Design in the Supply Chain 120
 - 5.2 Factors Influencing Network Design Decisions 121
 - 5.3 Framework for Network Design Decisions 126
 - 5.4 Models for Facility Location and Capacity Allocation 128
 - 5.5 Making Network Design Decisions in Practice 144
 - 5.6 Summary of Learning Objectives 145
 - Discussion Questions 146 • Exercises 146 • Bibliography 151*
 - ▶ **CASE STUDY:** Managing Growth at SportStuff.com 151
 - ▶ **CASE STUDY:** Designing the Production Network at CoolWipes 153
- Chapter 6 DESIGNING GLOBAL SUPPLY CHAIN NETWORKS 155**
- 6.1 The Impact of Globalization on Supply Chain Networks 155
 - 6.2 The Offshoring Decision: Total Cost 157
 - 6.3 Risk Management in Global Supply Chains 160
 - 6.4 Discounted Cash Flows 164
 - 6.5 Evaluating Network Design Decisions Using Decision Trees 165
 - 6.6 To Onshore or Offshore: Evaluation of Global Supply Chain Design Decisions Under Uncertainty 173
 - 6.7 Making Global Supply Chain Design Decisions Under Uncertainty in Practice 182
 - 6.8 Summary of Learning Objectives 182
 - Discussion Questions 183 • Exercises 183*
 - Bibliography 185*
 - ▶ **CASE STUDY:** BioPharma, Inc. 186
 - ▶ **CASE STUDY:** Global Supply Design for the Future: Nokia 188

Part III Planning and Coordinating Demand and Supply in a Supply Chain

- Chapter 7 DEMAND FORECASTING IN A SUPPLY CHAIN 190**
- 7.1 The Role of Forecasting in a Supply Chain 190
 - 7.2 Characteristics of Forecasts 191

- 7.3 Components of a Forecast and Forecasting Methods 192
- 7.4 Basic Approach to Demand Forecasting 193
- 7.5 Time-Series Forecasting Methods 195
- 7.6 Measures of Forecast Error 205
- 7.7 Selecting the Best Smoothing Constant 207
- 7.8 Forecasting Demand at Tahoe Salt 209
- 7.9 The Role of IT in Forecasting 215
- 7.10 Risk Management in Forecasting 216
- 7.11 Forecasting in Practice 217
- 7.12 Summary of Learning Objectives 217
 - Discussion Questions* 218 • *Exercises* 218
 - *Bibliography* 220
- ▶ **CASE STUDY:** Specialty Packaging Corporation, Part A 220

Chapter 8 **AGGREGATE PLANNING IN A SUPPLY CHAIN 223**

- 8.1 The Role of Aggregate Planning in a Supply Chain 223
- 8.2 The Aggregate Planning Problem 225
- 8.3 Aggregate Planning Strategies 227
- 8.4 Aggregate Planning Using Linear Programming 228
- 8.5 Aggregate Planning in Excel 236
- 8.6 Building a Rough Master Production Schedule 238
- 8.7 The Role of IT in Aggregate Planning 239
- 8.8 Implementing Aggregate Planning in Practice 240
- 8.9 Summary of Learning Objectives 240
 - Discussion Questions* 241 • *Exercises* 241
 - *Bibliography* 243
- ▶ **CASE STUDY:** Specialty Packaging Corporation, Part B 243

Chapter 9 **SALES AND OPERATIONS PLANNING: PLANNING SUPPLY AND DEMAND IN A SUPPLY CHAIN 246**

- 9.1 Responding to Predictable Variability in the Supply Chain 246
- 9.2 Managing Supply 247
- 9.3 Managing Demand 249
- 9.4 Implementing Sales and Operations Planning in Practice 256
- 9.5 Summary of Learning Objectives 257
 - Discussion Questions* 257 • *Exercises* 258 • *Bibliography* 260
- ▶ **CASE STUDY:** Mintendo Game Girl 260

Chapter 10 **COORDINATION IN A SUPPLY CHAIN 262**

- 10.1 Lack of Supply Chain Coordination and the Bullwhip Effect 262
- 10.2 The Effect on Performance of Lack of Coordination 264
- 10.3 Obstacles to Coordination in a Supply Chain 266
- 10.4 Managerial Levers to Achieve Coordination 270
- 10.5 Continuous Replenishment and Vendor-Managed Inventories 275
- 10.6 Collaborative Planning, Forecasting, and Replenishment (CPFR) 276

- 10.7 Achieving Coordination in Practice 279
 10.8 Summary of Learning Objectives 281
Discussion Questions 281 • Bibliography 282

Part IV Planning and Managing Inventories in a Supply Chain

Chapter 11 MANAGING ECONOMIES OF SCALE IN A SUPPLY CHAIN: CYCLE INVENTORY 283

- 11.1 The Role of Cycle Inventory in a Supply Chain 283
 11.2 Estimating Cycle Inventory–Related Costs in Practice 286
 11.3 Economies of Scale to Exploit Fixed Costs 288
 11.4 Economies of Scale to Exploit Quantity Discounts 301
 11.5 Short-Term Discounting: Trade Promotions 312
 11.6 Managing Multiechelon Cycle Inventory 317
 11.7 Summary of Learning Objectives 319
Discussion Questions 320 • Exercises 320
• Bibliography 322
 ► **CASE STUDY: NAN** 323
Appendix 11A: Economic Order Quantity 325

Chapter 12 MANAGING UNCERTAINTY IN A SUPPLY CHAIN: SAFETY INVENTORY 326

- 12.1 The Role of Safety Inventory in a Supply Chain 326
 12.2 Determining the Appropriate Level of Safety Inventory 328
 12.3 Impact of Supply Uncertainty on Safety Inventory 339
 12.4 Impact of Aggregation on Safety Inventory 341
 12.5 Impact of Replenishment Policies on Safety Inventory 353
 12.6 Managing Safety Inventory in a Multiechelon Supply Chain 356
 12.7 The Role of IT in Inventory Management 357
 12.8 Estimating and Managing Safety Inventory in Practice 358
 12.9 Summary of Learning Objectives 359
Discussion Questions 360 • Exercises 360
• Bibliography 363
 ► **CASE STUDY: Managing Inventories at ALKO Inc.** 363
 ► **CASE STUDY: Shall it be postponed?** 365
Appendix 12A: The Normal Distribution 366
Appendix 12B: The Normal Distribution in Excel 367
Appendix 12C: Expected Shortage Cost per Cycle 368
Appendix 12D: Evaluating Safety Inventory for Slow-Moving Items 369

Chapter 13 DETERMINING THE OPTIMAL LEVEL OF PRODUCT AVAILABILITY 370

- 13.1 The Importance of the Level of Product Availability 370
 13.2 Factors Affecting Optimal Level of Product Availability 371
 13.3 Managerial Levers to Improve Supply Chain Profitability 382

- 13.4 Setting Product Availability for Multiple Products Under Capacity Constraints 396
- 13.5 Setting Optimal Levels of Product Availability in Practice 398
- 13.6 Summary of Learning Objectives 399
 - Discussion Questions* 399 • *Exercises* 400
 - *Bibliography* 402
- Appendix 13A: Optimal Level of Product Availability* 403
- Appendix 13B: An Intermediate Evaluation* 403
- Appendix 13C: Expected Profit from an Order* 404
- Appendix 13D: Expected Overstock from an Order* 405
- Appendix 13E: Expected Understock from an Order* 406
- Appendix 13F: Simulation Using Spreadsheets* 406

Part V Designing and Planning Transportation Networks

Chapter 14 TRANSPORTATION IN A SUPPLY CHAIN 409

- 14.1 The Role of Transportation in a Supply Chain 409
- 14.2 Modes of Transportation and Their Performance Characteristics 411
- 14.3 Transportation Infrastructure and Policies 415
- 14.4 Design Options for a Transportation Network 418
- 14.5 Trade-Offs in Transportation Design 423
- 14.6 Tailored Transportation 432
- 14.7 The Role of IT in Transportation 434
- 14.8 Risk Management in Transportation 435
- 14.9 Making Transportation Decisions in Practice 436
- 14.10 Summary of Learning Objectives 436
 - Discussion Questions* 437 • *Exercises* 437 • *Bibliography* 438
 - ▶ **CASE STUDY:** Designing a Sustainable Distribution Network for Euro-Grain 438

Part VI Managing Cross-Functional Drivers in a Supply Chain

Chapter 15 SOURCING DECISIONS IN A SUPPLY CHAIN 440

- 15.1 The Role of Sourcing in a Supply Chain 440
- 15.2 In-House or Outsource 442
- 15.3 Third- and Fourth-Party Logistics Providers 448
- 15.4 Using Total Cost to Score and Assess Suppliers 451
- 15.5 Supplier Selection—Auctions and Negotiations 453
- 15.6 Contracts, Risk Sharing, and Supply Chain Performance 456
- 15.7 Design Collaboration 467
- 15.8 The Procurement Process 469
- 15.9 Designing a Sourcing Portfolio: Tailored Sourcing 471
- 15.10 Risk Management in Sourcing 472
- 15.11 Making Sourcing Decisions in Practice 473

- 15.12 Summary of Learning Objectives 474
 - Discussion Questions* 475 • *Exercises* 475
 - *Bibliography* 476

Chapter 16 PRICING AND REVENUE MANAGEMENT IN A SUPPLY CHAIN 478

- 16.1 The Role of Pricing and Revenue Management in a Supply Chain 478
- 16.2 Pricing and Revenue Management for Multiple Customer Segments 480
- 16.3 Pricing and Revenue Management for Perishable Assets 487
- 16.4 Pricing and Revenue Management for Seasonal Demand 493
- 16.5 Pricing and Revenue Management for Bulk and Spot Contracts 493
- 16.6 Using Pricing and Revenue Management in Practice 495
- 16.7 Summary of Learning Objectives 497
 - Discussion Questions* 497 • *Exercises* 498
 - *Bibliography* 499

Chapter 17 INFORMATION TECHNOLOGY IN A SUPPLY CHAIN 500

- 17.1 The Role of IT in a Supply Chain 500
- 17.2 The Supply Chain IT Framework 502
- 17.3 Customer Relationship Management 503
- 17.4 Internal Supply Chain Management 504
- 17.5 Supplier Relationship Management 505
- 17.6 The Transaction Management Foundation 506
- 17.7 The Future of IT in the Supply Chain 507
- 17.8 Risk Management in IT 508
- 17.9 Supply Chain IT in Practice 509
- 17.10 Summary of Learning Objectives 510
 - Discussion Questions* 510 • *Bibliography* 510

Chapter 18 SUSTAINABILITY AND THE SUPPLY CHAIN 512

- 18.1 The Role of Sustainability in a Supply Chain 512
- 18.2 The Tragedy of the Commons 514
- 18.3 Key Metrics for Sustainability 516
- 18.4 Sustainability and Supply Chain Drivers 517
- 18.5 Closed-Loop Supply Chains 520
- 18.6 Summary of Learning Objectives 520
 - Discussion Questions* 521 • *Bibliography* 521

出版说明

为了适应经济全球化的发展趋势，满足国内广大读者了解、学习和借鉴国外先进的管理经验和掌握经济理论前沿动态的需要，清华大学出版社与国外著名出版公司合作影印出版一系列英文版经济管理方面的图书。我们所选择的图书，基本上已是再版多次、在国外深受欢迎、并被广泛采用的优秀教材，绝大部分是该领域中较具权威性的经典之作。

由于原作者所处国家的政治、经济和文化背景等与我国不同，对书中所持观点，敬请广大读者在阅读过程中注意加以分析和鉴别。

我们期望这套影印书的出版对我国经济科学的发展能有所帮助，对我国经济管理专业的教学能有所促进。

欢迎广大读者给我们提出宝贵的意见和建议；同时也欢迎有关的专业人士向我们推荐您所接触到的国外优秀图书。

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总序

世纪之交，中国与世界的发展呈现最显著的两大趋势——以网络为代表的信息技术的突飞猛进，以及经济全球化的激烈挑战。无论是无远弗界的因特网，还是日益密切的政治、经济、文化等方面的国际合作，都标示着 21 世纪的中国是一个更加开放的中国，也面临着一个更加开放的世界。

教育，特别是管理教育总是扮演着学习与合作的先行者的角色。改革开放以来，尤其是 20 世纪 90 年代之后，为了探寻中国国情与国际上一切优秀的管理教育思想、方法和手段的完美结合，为了更好地培养高层次的“面向国际市场竞争、具备国际经营头脑”的管理者，我国的教育机构与美国、欧洲、澳洲以及亚洲一些国家和地区的大量的著名管理学院和顶尖跨国企业建立了长期密切的合作关系。以清华大学经济管理学院为例，2000 年，学院顾问委员会成立，并于 10 月举行了第一次会议，2001 年 4 月又举行了第二次会议。这个顾问委员会包括了世界上最大的一些跨国公司和几家顶尖企业的最高领导人，其阵容之大、层次之高，超过了世界上任何一所商学院。在这样高层次、多样化、重实效的管理教育国际合作中，教师和学生与国外的交流机会大幅度增加，越来越深刻地融入全球性的教育、文化和思想观念的时代变革中，我们的管理教育工作者和经济管理学习者，更加真切地体验到这个世界正发生着深刻的变化，也更主动地探寻和把握着世界经济发展和跨国企业运作的脉搏。

我国管理教育的发展，闭关锁国、闭门造车是绝对不行的，必须同国际接轨，按照国际一流的水准来要求自己。正如朱镕基同志在清华大学经济管理学院成立十周年时所发的贺信中指出的那样：“建设有中国特色的社会主义，需要一大批掌握市场经济的一般规律，熟悉其运行规则，而又了解中国企业实情的经济管理人才。清华大学经济管理学院就要敢于借鉴、引进世界上一切优秀的经济管理学院的教学内容、方法和手段，结合中国的国情，办成世界第一流的经管学院。”作为达到世界一流的一个重要基础，朱镕基同志多次建议清华的 MBA 教育要加强英语教学。我体会，这不仅因为英语是当今世界交往中重要的语言工具，是连接中国与世界的重要桥梁和媒介，而且更是中国经济管理人才参与国际竞争，加强国际合作，实现中国企业的国际战略的基石。推动和实行英文教学并不是目的，真正的目的在于培养学生——这些未来的企业家——能够具备同国际竞争对手、合作伙伴沟通和对抗的能力。按照这一要求，清华大学经济管理学院正在不断推动英语教学的步伐，使得英语不仅是一门需要学习的核心课程，而且渗透到各门专业课程的学习当中。

课堂讲授之外，课前课后的大量英文原版著作、案例的阅读对于提高学生的英文水平也是非常关键的。这不仅是积累相当的专业词汇的重要手段，而且是对学习

者思维方式的有效训练。

我们知道，就阅读而言，学习和借鉴国外先进的管理经验和掌握经济理论动态，或是阅读翻译作品，或是阅读原著。前者属于间接阅读，后者属于直接阅读。直接阅读取决于读者的外文阅读能力，有较高外语水平的读者当然喜欢直接阅读原著，这样不仅可以避免因译者的疏忽或水平所限而造成的纰漏，同时也可以尽享原作者思想的真实表达。而对于那些有一定外语基础，但又不能完全独立阅读国外原著的读者来说，外文的阅读能力是需要加强培养和训练的，尤其是专业外语的阅读能力更是如此。如果一个人永远不接触专业外版图书，他在获得国外学术信息方面就永远会比别人差半年甚至一年的时间，他就会在无形中减弱自己的竞争能力。因此，我们认为，有一定外语基础的读者，都应该尝试一下阅读外文原版，只要努力并坚持，就一定能过了这道关，到那时就能体验到直接阅读的妙处了。

在掌握大量术语的同时，我们更看重读者在阅读英文原版著作时对于西方管理者或研究者的思维方式的学习和体会。我认为，原汁原味的世界级大师富有特色的表达方式背后，反映了思维习惯，反映了思想精髓，反映了文化特征，也反映了战略偏好。知己知彼，对于跨文化的管理思想、方法的学习，一定要熟悉这些思想、方法所孕育、成长的文化土壤，这样，有朝一日才能真正“具备国际战略头脑”。

以往，普通读者购买和阅读英文原版还有一个书价的障碍。一本外版书少则几十美元，多则上百美元，一般读者只能望书兴叹。随着全球经济合作步伐的加快，目前在出版行业有了一种新的合作出版的方式，即外文影印版，其价格几乎与国内同类图书持平。这样一来，读者可以不必再为书价发愁。清华大学出版社这些年在这方面一直以独特的优势领先于同行。早在1997年，清华大学出版社敢为人先，在国内最早推出一批优秀商学英文版教材，规模宏大，在企业界和管理教育界引起不小的轰动，更使国内莘莘学子受益良多。

为了配合清华大学经济管理学院推动英文授课的急需，也为了向全国更多的MBA试点院校和更多的经济管理学院的教师和学生提供学习上的支持，清华大学出版社再次隆重推出与世界著名出版集团合作的英文原版影印商学教科书，也使广大工商界人士、经济管理类学生享用到最新最好质优价廉的国际教材。

祝愿我国的管理教育事业在社会各界的大力支持和关心下不断发展、日进日新；祝愿我国的经济建设在不断涌现的大批高层次的面向国际市场竞争、具备国际经营头脑的管理者的勉力经营下早日中兴。

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简 明 目 录

第 1 部分 构建分析供应链的战略框架	
第 1 章 了解供应链	13
第 2 章 供应链绩效:实现战略匹配与战略范围	31
第 3 章 供应链驱动因素与衡量指标	50
第 2 部分 设计供应链网络	
第 4 章 分销网络的设计及其在网络销售中的应用	80
第 5 章 供应链的网络设计	120
第 6 章 设计全球供应链网络	155
第 3 部分 计划并协调供应链中的供给与需求	
第 7 章 供应链中的需求预测	190
第 8 章 供应链的综合计划	223
第 9 章 销售与运作计划:规划供应链中的供求	246
第 10 章 供应链中的协调	262
第 4 部分 计划并管理供应链中的库存	
第 11 章 供应链的规模经济管理:周转库存	283
第 12 章 供应链的不确定性管理:安全库存	326
第 13 章 确定产品的最优可获得性水平	370
第 5 部分 设计并计划运输网络	
第 14 章 供应链中的运输	409
第 6 部分 管理供应链中的跨职能驱动因素	
第 15 章 供应链的采购决策	440
第 16 章 供应链的定价和收入管理	478
第 17 章 供应链的信息技术	500
第 18 章 可持续性与供应链	512
索引	522

PREFACE

This book is targeted toward an academic as well as a practitioner audience. On the academic side, it should be appropriate for M.B.A. students, engineering master's students, and senior undergraduate students interested in supply chain management and logistics. It should also serve as a suitable reference for both concepts as well as methodology for practitioners in consulting and industry.

NEW TO THIS EDITION

The fifth edition has focused on building on the changes that were incorporated in the fourth edition. We have also added changes based on specific reviewer feedback that we believe significantly improve the book and its use by faculty and students.

- We have added several new mini-cases throughout the book. New cases appear in Chapters 3, 5, 6, 12, and 14. Information in other cases has been updated to be current.
- For numerical examples discussed in the book, we have spreadsheets that students can use to understand the concept. The spreadsheets provide the details of the example discussed, but are live which allows the student to try different what-if analyses. These spreadsheets are available at www.pearsonglobaleditions.com/chopra.
- In Chapter 3, we have added a section on financial metrics and ratios and linked these to the different supply chain drivers and metrics. This chapter allows a faculty member to position the supply chain management as it directly impacts the financial performance of the firm. We have also added a supporting mini-case with which students can dig into Walmart's financials in detail.
- We have enhanced Chapter 6, which focuses on designing global supply chains. In particular, we have included a detailed example in Section 6.6 that looks at the onshoring/offshoring decision as a real option in the context of uncertainty.
- Supply chain coordination (Chapter 17 in the fourth edition) is now part of the module on "Planning and Coordinating Demand and Supply in the Supply Chain." Based on reviewer feedback, we decided it was appropriate to include the collaboration and coordination discussions with the forecasting and sales and operations planning discussions.
- In Chapter 7, we have enhanced the discussions on forecast errors and selecting the best smoothing constant.
- In Chapter 8, we have enhanced the discussions on identifying the aggregate unit and then disaggregating the aggregate plan.
- In Chapter 9, we now have a spreadsheet that allows students to work through the entire sales and operations planning process for the example presented. Spreadsheets are available that allow students to build every table shown in Chapters 7–9.
- In Chapter 11, we have added numerical examples supporting the entire discussion on the rationale for quantity discounts. Supporting spreadsheets are provided for students.
- In Chapter 12, we added numerical examples supporting the value of postponement discussion and a mini-case investigating a decision to potentially postpone packaging.
- In Chapter 13, we have also enhanced and highlighted the discussion on tailored postponement.
- In Chapter 14, we have enhanced the quantitative examples which support the qualitative discussion on the design of transportation networks. Students will also have live spreadsheets available to use with these examples.
- In Chapter 15, we have enhanced the discussion on risk sharing and supply chain contracts. Students will also have live spreadsheets with which they can evaluate different risk-sharing options. The chapter also contains an enhanced discussion of tailored sourcing when designing a supplier portfolio.

- A new Chapter 18 focuses on sustainability and the supply chain.
- We have added current examples throughout the book with a particular focus on bringing in more global examples.

The book has grown from a course on supply chain management taught to second-year M.B.A. students at the Kellogg School of Management at Northwestern University. The goal of this class was to cover not only high-level supply chain strategy and concepts, but also to give students a solid understanding of the analytical tools necessary to solve supply chain problems. With this class goal in mind, our objective was to create a book that would develop an understanding of the following key areas and their interrelationships: the strategic role of a supply chain, the key strategic drivers of supply chain performance, and analytic methodologies for supply chain analysis.

Our first objective in this book is for the reader to learn the strategic importance of good supply chain design, planning, and operation for every firm. The reader will be able to understand how good supply chain management can be a competitive advantage, whereas weaknesses in the supply chain can hurt the performance of a firm.

Within the strategic framework, we identify facilities, inventory, transportation, information, sourcing, and pricing as the key drivers of supply chain performance. Our second goal in the book is to convey how these drivers may be used on a conceptual and practical level during supply chain design, planning, and operation to improve performance. We have included a case on Seven-Eleven Japan that can be used to illustrate how the company uses various drivers to improve supply chain performance. For each driver of supply chain performance, our goal is to provide readers with practical managerial levers and concepts that may be used to improve supply chain performance.

Utilizing these managerial levers requires knowledge of analytic methodologies for supply chain analysis. Our third goal is to give the reader an understanding of these methodologies. Every methodological discussion is illustrated with its application in Excel. In this discussion, we also stress the managerial context in which the methodology is used and the managerial levers for improvement that it supports.

FOR INSTRUCTORS

Instructor's Resource Center

REGISTER. REDEEM. LOGIN. www.pearsonglobaleditions.com/chopra, instructors can access a variety of print, media, and presentation resources that are available with this text in downloadable, digital format.

NEED HELP? Our dedicated Technical Support team is ready to assist instructors with questions about the media supplements that accompany this text. Visit <http://247.pearsoned.com/> for answers to frequently asked questions.

INSTRUCTOR'S SOLUTIONS MANUAL This manual contains sample syllabi, chapter lecture notes, and solutions to all the end-of-chapter questions. The solution spreadsheets are provided in Microsoft Excel.

TEST ITEM FILE The file contains true/false questions, multiple-choice questions, and essay/problem questions.

POWERPOINT SLIDES These slides provide the instructor with individual lecture outlines to accompany the text. The slides include many of the figures and tables from the text.

FOR STUDENTS

The following material is available to students at www.pearsonglobaleditions.com/chopra:

- Spreadsheets for numerical examples discussed in the book. These provide the details of the example discussed, but are live and allow the student to try different what-if analyses.
- Spreadsheets that allow students to build every table shown in Chapters 7–9.

CONTENTS

Part I Building a Strategic Framework to Analyze Supply Chains

Chapter 1 UNDERSTANDING THE SUPPLY CHAIN 13

- 1.1 What Is a Supply Chain? 13
- 1.2 The Objective of a Supply Chain 15
- 1.3 The Importance of Supply Chain Decisions 16
- 1.4 Decision Phases in a Supply Chain 18
- 1.5 Process Views of a Supply Chain 20
- 1.6 Examples of Supply Chains 25
- 1.7 Summary of Learning Objectives 29
 - Discussion Questions 29 • Bibliography 30*

Chapter 2 SUPPLY CHAIN PERFORMANCE: ACHIEVING STRATEGIC FIT AND SCOPE 31

- 2.1 Competitive and Supply Chain Strategies 31
- 2.2 Achieving Strategic Fit 33
- 2.3 Expanding Strategic Scope 44
- 2.4 Challenges to Achieving and Maintaining Strategic Fit 46
- 2.5 Summary of Learning Objectives 48
 - Discussion Questions 48 • Bibliography 49*

Chapter 3 SUPPLY CHAIN DRIVERS AND METRICS 50

- 3.1 Financial Measures of Performance 50
- 3.2 Drivers of Supply Chain Performance 53
- 3.3 Framework for Structuring Drivers 55
- 3.4 Facilities 56
- 3.5 Inventory 59
- 3.6 Transportation 61
- 3.7 Information 63
- 3.8 Sourcing 66
- 3.9 Pricing 68
- 3.10 Summary of Learning Objectives 70
 - Discussion Questions 71 • Bibliography 71*
 - ▶ **CASE STUDY:** Seven-Eleven Japan Co. 72
 - ▶ **CASE STUDY:** Financial Statements for Wal-Mart Stores Inc. 78