Table of Contents

Cases 126
  5-1 Garland Chocolates 126
  5-2 Marshall Insurance Company 128
  5-3 Alicia Wong 129

Chapter 6
Need Identification and Specification 131

Need Criteria in the Value Proposition 132
  1. Strategic Criteria 132
  2. Traditional Criteria 133
  3. Additional Current Criteria 134

Categories of Needs 136
  1. Resale 137
  2. Raw and Semiprocessed Materials 137
  3. Parts, Components, and Packaging 138
  4. Maintenance, Repair, and Operating Supplies 138
  5. Capital Assets 139
  6. Services 141
  7. Other 143

Repetitive or Nonrepetitive Requirements? 143
Commercial Equivalents 143
Early Supply and Supplier Involvement 144

Methods of Description 145
  Brand 145
  “Or Equal” 146
  Specification 146
  Miscellaneous Methods of Description 148
  Combination of Descriptive Methods 148
  Sources of Specification Data 148

Standardization and Simplification 150

Conclusion 151
Questions for Review and Discussion 151
References 152
Cases 152
  6-1 Moren Corporation (A) 152
  6-2 Moren Corporation (B) 154
  6-3 Carson Manor 155

Chapter 7
Quality 161

Role of Quality in Supply Management 162
Defining Quality 164

Quality 164
  Function 164
  Suitability 164
  Reliability 164
  Quality Dimensions 165
  “Best Buy” 165
  Determining the “Best Buy” 166

The Cost of Quality 166
  Prevention Costs 168
  Appraisal Costs 168
  Internal Failure Costs 168
  External Failure Costs 168
  Morale Costs 169
  An Overall Quality–Cost Perspective 169

Quality Management Tools and Techniques 169
  Lean Enterprise 170
  Total Quality Management (TQM) 170
  Continuous Improvement 171
  Quality Function Deployment (QFD) 172
  Six Sigma 173
  Statistical Process Control (SPC) 174
  Sampling, Inspection, and Testing 178
  The Quality Assurance and Quality Control Group 182
  Assuring the Quality of Purchased Services 182
  Supplier Certification 187

Quality Standards and Awards Programs 188
  ISO 9000 Quality Standards 188
  ISO 14000 Environmental Standards 189
  The Malcolm Baldrige National (U.S.) Quality Award 189
  The Deming Prize 190

Conclusion 190
Questions for Review and Discussion 191
References 191
Cases 192
  7-1 The Power Line Poles 192
  7-2 Caledon Concrete Mixers 194
  7-3 Wentworth Hospital 196

Chapter 8
Quantity and Inventory 200

Quantity and Timing Issues 201
  Quantity and Delivery 202
  Time-Based Strategies 202
Table of Contents

Forecasting 203
  Forecasting Techniques 204
  Collaborative Planning, Forecasting, and Replenishment (CPFR) 205
Determining Order Quantities and Inventory Levels 205
  Fixed-Quantity Models 206
  Fixed-Period Models 208
  Probabilistic Models and Service Coverage 208
  Buffer or Safety Stocks and Service Levels 208
Planning Requirements and Resources 210
  Material Requirements Planning (MRP) 211
  Capacity Requirements Planning (CRP) 212
  Manufacturing Resource Planning (MRP II) 212
  Demand Driven MRP 212
  Enterprise Resource Planning (ERP) Systems 213
  Supplier Implications of MRP 213
Functions and Forms of Inventories 214
  The Functions of Inventory 214
  The Forms of Inventory 216
  Inventory Function and Form Framework 217
Inventory Management 219
  Costs of Inventories 219
  ABC Classification 221
  Vendor- or Supplier-Managed Inventory (VMI/SMI) 222
  Lean Supply, Just-in-Time (JIT), and Kanban Systems 223
  Managing Supply Chain Inventories 227
Determining Quantity of Services 228
  Aggregating Demand 228
  Managing Consumption 228
  Dimensions of Services and Quantity Decisions 228
Conclusion 230
Questions for Review and Discussion 230
References 231
Cases 231
  8–1 Lisa Caruso 231
  8–2 Throsel-Teskey Drilling 233

Chapter 9
Delivery 236
Logistics 237
  Role of Logistics in the Economy 238
  Role of Supply in Logistics 238
Transportation 238
  Outsourcing to Third-Party Logistics (3PLs) 239
  Service Providers 239
  Transportation Regulation and Deregulation 240
  Supply’s Involvement in Transportation 240
Transportation Modes and Carriers 241
  Road 241
  Rail and Intermodal 242
  Pipelines 242
  Air 242
  Water 242
  Radio Frequency Waves 243
Types of Carriers, Providers, and Service Options 244
  Types of Carriers 244
  Transportation Service Providers 244
  Specialized Service Options 245
Selection of Mode and Supplier 245
  “Best Value” Delivery Decisions 245
  Key Selection Criteria 246
  FOB Terms and Incoterms 247
  Rates and Pricing 248
  Documentation in Freight Shipments 249
  Expediting and Tracing Shipments 251
  Freight Audits 251
Delivery Options for Services 251
  Buyer Location versus Supplier Location 252
  On-premise versus Off-premise/Web-Based IT Delivery 253
Transportation and Logistics Strategy 253
Organization for Logistics 254
Conclusion 255
Questions for Review and Discussion 255
References 255
Cases 256
  9–1 Penner Medical Products 256
  9–2 Russel Wisselink 257
  9–3 Cameron Power Equipment 259

Chapter 10
Price 261
Relation of Cost to Price 262
  Meaning of Cost 263
How Suppliers Establish Price 265
  The Cost Approach 265
  The Market Approach 265
Government Influence on Pricing 266
  Legislation Affecting Price Determination 266
Types of Purchases 268
  Raw and Semiprocessed Materials 269
  Parts, Components, and Packaging 269
  Maintenance, Repair, and Operating Supplies (MRO) and Small-Value Purchases (SVPs) 270
  Capital Assets 270
  Services 271
  Resale 271
  Other 271
The Use of Quotations and Competitive Bidding 271
  Steps in the Bidding Process 272
  Firm Bidding 273
  Determination of Most Advantageous Bid 274
  Collusive Bidding 274
  Public-Sector Bidding 275
  The Problem of Identical Prices 277
Discounts 278
  Cash Discounts 278
  Trade Discounts 279
  Multiple Discounts 279
  Quantity Discounts 279
  The Price-Discount Problem 280
  Quantity Discounts and Source Selection 281
  Cumulative or Volume Discounts 282
Contract Options for Pricing 282
  Firm-Fixed-Price (FFP) Contract 282
  Cost-Plus-Fixed-Fee (CPFF) Contract 282
  Cost-No-Fee (CNF) Contract 283
  Cost-Plus-Incentive-Fee (CPIF) Contract 283
  Provision for Price Changes 283
  Contract Cancellation 285
Forward Buying and Commodities 285
  Managing Risk with Production and Marketing Contracts 286
  Forward Buying versus Speculation 286
  Organizing for Forward Buying 287
  Control of Forward Buying 287
  The Commodity Exchanges 288
  Limitations of the Exchanges 289
  Hedging 289
  Sources of Information Regarding Price Trends 291

Conclusion 292
Questions for Review and Discussion 293
References 293
Cases 293
  10–1 Wedlock Engineered Products 293
  10–2 Coral Drugs 295
  10–3 Price Forecasting Exercise 297

Chapter 11
Cost Management 298

Strategic Cost Management 300
  Sources of Competitive Advantage 300
  Frameworks for Cost Management 300
Cost Management Tools and Techniques 303
  Total Cost of Ownership 303
  Target Costing 309
  The Learning Curve or Experience Curve 310
  Value Engineering and Value Analysis 311
  Activity-Based Costing 311
Negotiation 312
  Negotiation Strategy and Practice 313
  Framework for Planning and Preparing for Negotiation 314
Conclusion 316
Questions for Review and Discussion 317
References 317
Cases 318
  11–1 Deere Cost Management 318
  11–2 McMichael Inc. 319
  11–3 Carmichael Corporation 320

Chapter 12
Supplier Selection 323

The Supplier Selection Decision 324
  Decision Trees 325
Identifying Potential Sources 326
  Information Sources 327
  Standard Information Requests 331
Additional Supplier Selection Decisions 332
  Single versus Multiple Sourcing 332
  Manufacturer versus Distributor 334
  Geographical Location of Sources 335
  Supplier Size 337
Supplier Development/Reverse Marketing 338
Evaluating Potential Sources 340
### Table of Contents

<table>
<thead>
<tr>
<th>Level 1 — Strategic</th>
<th>340</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 — Traditional</td>
<td>344</td>
</tr>
<tr>
<td>Level 3 — Current Additional</td>
<td>347</td>
</tr>
<tr>
<td>Ranking Potential Suppliers</td>
<td>352</td>
</tr>
<tr>
<td>Conclusion</td>
<td>352</td>
</tr>
<tr>
<td>Questions for Review and Discussion</td>
<td>353</td>
</tr>
<tr>
<td>References</td>
<td>353</td>
</tr>
<tr>
<td>Cases</td>
<td>354</td>
</tr>
<tr>
<td>12–1 Loren Inc.</td>
<td>354</td>
</tr>
<tr>
<td>12–2 Kettering Industries Inc.</td>
<td>358</td>
</tr>
<tr>
<td>12–3 Plastic Cable Clips</td>
<td>361</td>
</tr>
</tbody>
</table>

### Chapter 13

**Supplier Evaluation and Supplier Relationships** 365

- Measuring Supplier Performance 366
  - Key Performance Indicators (KPIs) 366
- Evaluation Methods 367
  - Informal Evaluation and Rating 367
  - Semiformal: Executive Roundtable Discussions 367
  - Formal Supplier Evaluation and Rating 368
- Supplier Ranking 370
  - Unacceptable Suppliers 370
  - Acceptable Suppliers 371
  - Preferred Suppliers 371
  - Exceptional Suppliers 371
- Supplier Relationships 371
  - Supplier Relationship Context 372
  - Supplier Goodwill 373
  - The Purchaser–Supplier Satisfaction Matrix 374
  - Supplier Relationship Management 377
- Partnerships and Alliances 378
  - Early Supplier/Supply Involvement (ESI) 379
  - Partner Selection 379
  - Types of Partnerships and Alliances 380
  - The Longer-Term Perspective 381
  - Concerns about Partnerships and Alliances 381
  - Multi-tier Supplier Relationships 382
- Conclusion 383
- Questions for Review and Discussion 383
- References 383
- Cases 384
  - 13–1 APC Europe 384
  - 13–2 Delphi Corporation 387
  - 13–3 Northeastern Hospital 391

### Chapter 14

**Global Supply Management** 395

- The Importance of Global Supply 396
  - Reasons for Global Purchasing 397
  - Potential Problem Areas 401
- Selecting and Managing Offshore Suppliers 409
  - Global Sourcing Organizations 409
  - Intermediaries 411
  - Information Sources for Locating and Evaluating Offshore Suppliers 412
- Incoterm 413
  - Rules for Any Form of Transport 414
  - Rules for Sea and Inland Waterway Transport Only 415
- Tools For Global Supply 416
  - Countertrade 416
  - Foreign Trade Zones 418
  - Bonded Warehouses 420
  - Temporary Importation Bond (TIB) and Duty Drawbacks 420
- Regional Trading Agreements 421
  - North American Free Trade Agreement (NAFTA) 421
  - The European Union (EU) 421
  - ASEAN 422
  - Mercosur 422
  - Andean Community 422
  - China’s Trade Agreements 422
  - The World Trade Organization (WTO) 423
- Emerging Markets 423
- Conclusion 424
- Questions for Review and Discussion 424
- References 425
- Cases 426
  - 14–1 Trojan Technologies 426
  - 14–2 Marc Biron 428
  - 14–3 Sarin Pharmaceuticals Ltd. 429

### Chapter 15

**Legal and Ethics** 432

- Legal Authority of Buyer and Seller 433
  - Legal Authority of the Buyer 434
  - Personal Liability 435
  - Authority of Suppliers’ Representatives 436
Chapter 16
Other Supply Responsibilities 480
Receiving 481
Logistics and Warehousing 482
Inbound and Outbound Transportation 483
Production Planning 483
Accounts Payable 483
Investment Recovery 483
Categories of Material for Disposal 484
Responsibility for Material Disposal 488
Keys to Profitable Disposal 489
Disposal Channels 489
Disposal Procedures 491
Selection of Disposal Partners 492
Conclusion 493
Questions for Review and Discussion 493
References 494
Cases 494
16–1 Ross Wood 494
16–2 Raleigh Plastics 495

Chapter 17
Supply Function Evaluation and Trends 497
Supply Research 499
Full-Time or Part-Time Research Positions 500
Cross-Functional Teams 500
Supply Research Opportunities 502
Purchased Materials, Products, or Services 502
Commodities 505
Suppliers 506
Assessing Research Results 509
Supply Planning Process 509
Supply Budgets 510
Performance Measurement Systems 511
The Value of Supply Metrics 511
The Challenges 511
Measuring Supplier Performance 512
Supply Management Performance Metrics 513
Developing metrics 514
Setting Targets 514
Establishing Effective Metrics 514
Efficiency Metrics 514
Effectiveness Metrics 515
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Reports</td>
<td>515</td>
</tr>
<tr>
<td>Validating Results</td>
<td>517</td>
</tr>
<tr>
<td>Appraising Team Performance</td>
<td>517</td>
</tr>
<tr>
<td>Supply Performance Benchmarking</td>
<td>517</td>
</tr>
<tr>
<td>Supply Management Trends</td>
<td>519</td>
</tr>
<tr>
<td>Emphasis on Total Quality Management and Customer Satisfaction</td>
<td>519</td>
</tr>
<tr>
<td>Sustainability</td>
<td>519</td>
</tr>
<tr>
<td>Global Sourcing</td>
<td>520</td>
</tr>
<tr>
<td>Risk Management</td>
<td>522</td>
</tr>
<tr>
<td>Safety and Security</td>
<td>522</td>
</tr>
<tr>
<td>Supply Processes and Technology</td>
<td>523</td>
</tr>
<tr>
<td>Supply Organizations</td>
<td>523</td>
</tr>
<tr>
<td>External and Internal Collaboration</td>
<td>523</td>
</tr>
<tr>
<td>Metrics and Performance Measurement</td>
<td>524</td>
</tr>
<tr>
<td>Innovation</td>
<td>525</td>
</tr>
<tr>
<td>Public Procurement</td>
<td>525</td>
</tr>
<tr>
<td>Conclusion</td>
<td>525</td>
</tr>
<tr>
<td>Questions for Review and Discussion</td>
<td>526</td>
</tr>
<tr>
<td>References</td>
<td>526</td>
</tr>
<tr>
<td>Cases</td>
<td>527</td>
</tr>
<tr>
<td>17–1 Randall Corporation</td>
<td>527</td>
</tr>
<tr>
<td>17–2 Stewart Corporation</td>
<td>528</td>
</tr>
<tr>
<td>17–3 Tanton Foods</td>
<td>529</td>
</tr>
</tbody>
</table>

**Indexes**

Case Index 531
Subject Index 532