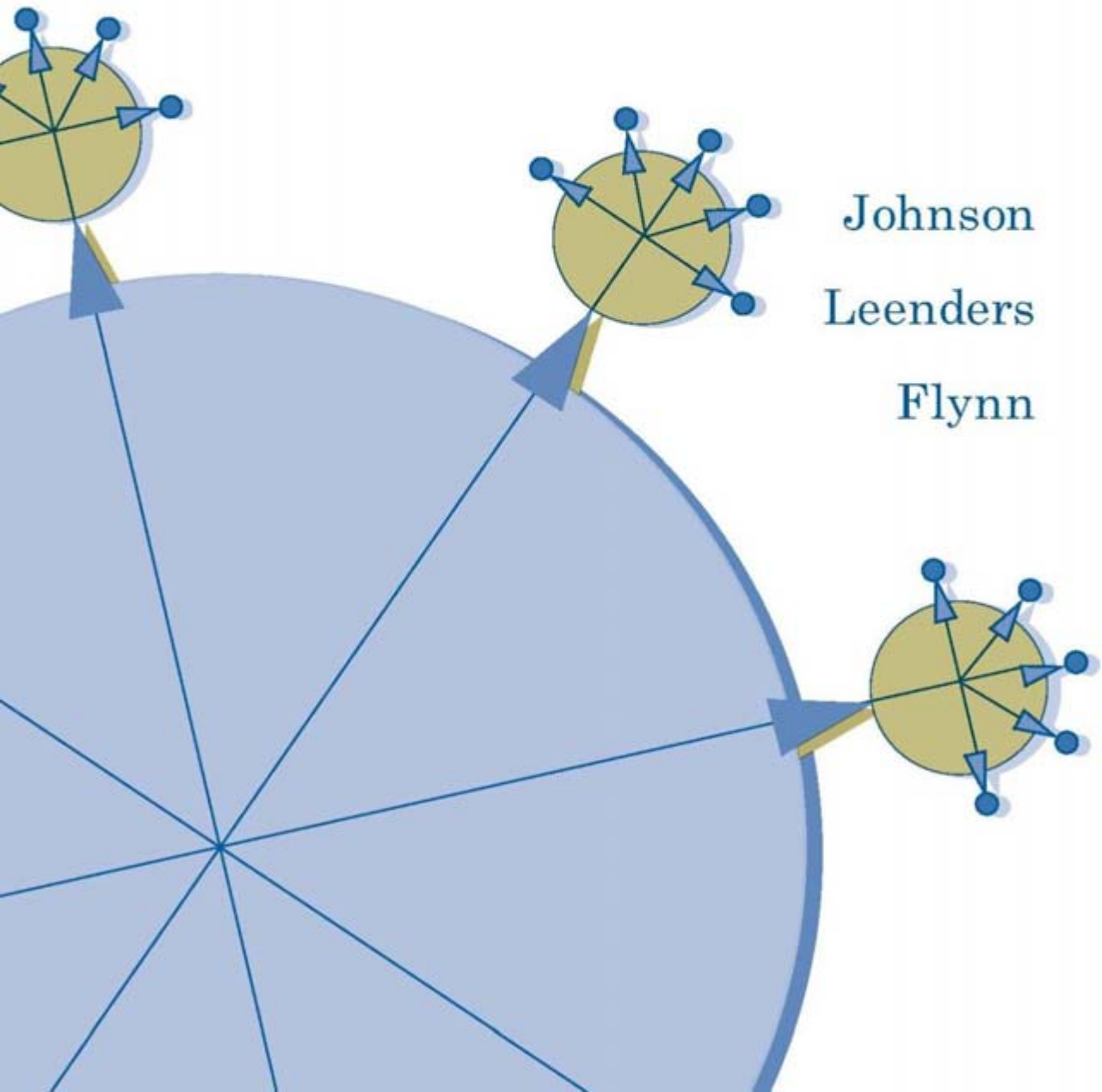


Fourteenth Edition

Purchasing *and* Supply Management



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Purchasing and Supply Management

Fourteenth Edition

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PURCHASING AND SUPPLY MANAGEMENT, FOURTEENTH EDITION

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Michiel R. Leenders is professor emeritus at the Richard Ivey School of Business at the University of Western Ontario. He received a degree in mining engineering from the University of Alberta, an MBA from the University of Western Ontario, and his doctorate from the Harvard Business School. Mike has written a large number of articles in a variety of magazines and journals. His texts have been translated into 10 different languages and include *Value-Driven Purchasing: The Key Steps in the Acquisition Process* (with Anna E. Flynn), published by Irwin Professional Publishing; *Reverse Marketing, The New Buyer-Supplier Relationship* (with David Blenkhorn), published by the Free Press; *Improving Purchasing Effectiveness through Supplier Development*, published by the Harvard Division of Research; *Learning with Cases, Writing Cases, and Teaching with Cases* with James A. Erskine and Louise Mauffette-Leenders, published by the Richard Ivey School of Business. He has also co-authored 10 editions of *Purchasing and Supply Management*, published by McGraw-Hill-Irwin. Mike has taught and consulted extensively both in Canada and internationally. He was the educational advisor to the Purchasing Management Association of Canada from 1961–1994. He received PMAC's Fellowship Award in 1975, the PMAC Chair from 1993 to 2009, the Financial Post Leaders in Management Education Award in 1997, and the Hans Ovelgonne Purchasing Research Award in 2001. He is the director of the Ivey Purchasing Managers Index and a director of ING Bank of Canada.

Anna E. Flynn teaches executive and management programs in purchasing and supply management for organizations in the North America, Europe, and Asia. She is a former faculty member at Thunderbird School of Global Management and Arizona State University, where she was also director of the undergraduate program in supply chain

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Preface

Purchasing and supply management has become increasingly visible in a world where supply is a major determinant of corporate survival and success. Supply chain performance influences not only operational and financial risks but also reputational risk. Extending the supply chain globally into developing countries places new responsibilities on supplier and supply, not only to monitor environmental, social, political, and security concerns but also to influence them. Thus, the job of the supply manager of today goes way beyond the scope of supply chain efficiency and value for money spent to search for competitive advantage in the supply chain. Cost containment and improvement represent one challenge; the other is revenue enhancement. Not only must the supply group contribute directly to both the balance sheet and the income statement; it must also enhance the performance of other members of the corporate team. Superior internal relationship and knowledge management need to be matched on the exterior in the supply network to assure that the future operational and strategic needs of the organization will be met by future markets. The joy of purchasing and supply management lives in the magnitude of its challenges and the opportunities to achieve magnificent contributions.

For more than 80 years this text and its predecessors have championed the purchasing and supply management cause. Based on the conviction that supply and suppliers have to contribute effectively to organizational goals and strategies, this and previous editions have focused on how to make that mission a reality.

Thus, the examples in the text and more than 40 real-life supply chain cases afford the chance to apply the latest research and theoretical developments in the field to real-life issues, opportunities, decisions, and problems faced by practitioners. Continuing advances in MIS and technology provide new ways to improve supply efficiency and effectiveness. New security, environmental, and transparency requirements and the search for meaningful supply metrics have further complicated the challenges faced by supply managers all over the world.

In this edition the focus on decision making in the supply chain has been strengthened considerably. Also the chapter sequence has been adjusted accordingly to reflect the chronological order of the acquisition process. Criteria for supply decisions have been identified in three categories: (1) strategic, (2) operational, and (3) additional. It is the third category with balance sheet and income statement considerations, all dimensions of risk, environmental, and social considerations that is growing in relevance, making sound supply decisions an even more complex challenge.

Since the sixth edition of this text over 30 years ago, Harold E. Fearon has been an author of this text. As the founder of the supply chain group at Arizona State University, the first editor of the *International Journal of Supply Chain Management* and the conceptualizer and first director of CAPS Research, Hal Fearon has been one of the true trailblazers of our field for decades. In this edition, Hal has no longer participated, although his past contributions are still evident throughout this text.

A second change in authorship for this edition has switched the roles of Michiel R. Leenders, listed as the first author of six previous editions, and P. Fraser Johnson, who has taken over the Leenders PMAC Chair of Purchasing Management at the Richard Ivey School of Business. Anna Flynn continues as a valuable member of the author team.

A book with text and cases depends on many to contribute through their research and writing to expand the body of knowledge of the field. Thus, to our academic colleagues our thanks for pushing out the theoretical boundaries of supply management. For their specific suggestions regarding the manuscript, our appreciation goes to Casey Kleindienst, *California State University—Fullerton*; William Magrogan, *University of Maryland—University College*; Jayanth Jayaram, *University of South Carolina*; and John Hanson, *University of San Diego*, all of whom provided detailed reviews and offered numerous suggestions for improving the presentation. To many practitioners, we wish to extend our gratitude for proving what works and what does not and providing their stories in the cases in this text. Also many case writers contributed their efforts so that about half of all the cases in this edition are new.

Case contributors in alphabetical order included: Collin Ashton, Louis Beaubien, Larry Berglund, Jorge Colazo, Nancy Dai, Niki da Silva, Dev K. Dutta, Tony Francolini, Manish Kumar, Matthew D. Lynall, Louise Mauffette-Leenders, Leane Morfopoulos, Elizabeth O’Neil, Peruvemba Sundaram Ravi, Suhaib Riaz, Frank Tang, Rob Turner, Dave Vannette, Asad Wali, and Marsha Watson.

The production side of any text is more complicated than most authors care to admit. The original manuscript preparation largely fell to Elaine Carson, who was obviously not scared off during the previous editions. At McGraw Hill/Irwin, Rebecca Mann, Dick Hercher, Lee Stone, and many others contributed to turn our efforts into a presentable text.

Kathleen Little, CPM, ably indexed this text and many previous editions.

The support of Dean Carol Stephenson and our colleagues at the Richard Ivey School of Business has been most welcome.

The assistance of the Institute for Supply Management in supporting the continuous improvement of supply education is also very much appreciated.

P. Fraser Johnson

Michiel R. Leenders

Anna E. Flynn

Brief Contents

About the Authors v

Preface vii

- 1** Purchasing and Supply Management 1
- 2** Supply Strategy 26
- 3** Supply Organization 45
- 4** Supply Processes and Technology 76
- 5** Make or Buy, Insourcing, and Outsourcing 120
- 6** Need Identification and Specification 135
- 7** Quality 165
- 8** Quantity and Inventory 198
- 9** Delivery 231

10 Price 253

11 Cost Management 288

12 Supplier Selection 313

13 Supplier Evaluation and Supplier Relations 352

14 Global Supply Management 383

15 Legal and Ethics 417

16 Other Supply Responsibilities 463

17 Supply Function Evaluation and Trends 481

INDEXES

Case Index 513

Subject Index 514

Table of Contents

About the Authors v

Preface vii

Chapter 1

Purchasing and Supply Management 1

Purchasing and Supply Management 3

Supply Management Terminology 4

Supply and Logistics 5

The Size of the Organization's Spend and Financial Significance 6

Supply Contribution 8

The Operational versus Strategic Contribution of Supply 8

The Direct and Indirect Contribution of Supply 9

The Nature of the Organization 13

Supply Qualifications and Associations 16

Challenges Ahead 18

Supply Chain Management 18

Measurement 19

Risk Management 19

Sustainability 19

Growth and Influence 19

Effective Contribution to Organizational Success 20

The Organization of This Text 20

Conclusion 21

Questions for Review and Discussion 21

References 21

Cases 22

I-1 Qmont Mining 22

I-2 Erica Carson 23

I-3 Southeastern University 24

Chapter 2

Supply Strategy 26

Levels of Strategic Planning 27

Major Challenges in Setting Supply Objectives and Strategies 29

Strategic Planning in Supply Management 29

x

Risk Management 30

Operational Risk: Supply Interruptions and Delays 30

Financial Risk: Changes in Price 31

Reputational Risk 31

Managing Supply Risks 31

The Corporate Context 32

Strategic Components 33

What? 33

Quality? 34

How Much? 35

Who? 36

When? 36

What Price? 36

Where? 36

How? 36

Why? 37

Conclusion 37

Questions for Review and Discussion 37

References 38

Cases 39

2-1 Spartan Heat Exchangers Inc. 39

2-2 Sabor Inc. 40

2-3 Ford Motor Company: Aligned Business Framework 42

Chapter 3

Supply Organization 45

Objectives of Supply Management 47

Organizational Structures for Supply

Management 50

Small and Medium-Sized Organizations 50

Large Organizations 51

Centralized and Decentralized Supply Structures 52

Hybrid Supply Structure 52

Specialization within the Supply Function 53

Structure for Direct and Indirect Spend 56

Managing Organizational Change in Supply 57

Organizing the Supply Group 58

The Chief Purchasing Officer (CPO) 58

Reporting Relationship 60

Supply Activities and Responsibilities	61
<i>What Is Acquired</i>	61
<i>Supply Chain Activities</i>	61
<i>Type of Involvement</i>	63
<i>Involvement in Corporate Activities</i>	63
<i>Influence of the Industry Sector on Supply Activities</i>	63
Supply Teams	64
<i>Leading and Managing Teams</i>	64
<i>Cross-Functional Supply Teams</i>	64
<i>Other Types of Supply Teams</i>	66
Consortia	67
Conclusion	69
Questions for Review and Discussion	69
References	69
Cases	70
3–1 Iowa Elevators	70
3–2 Roger Haskett	73

Chapter 4

Supply Processes and Technology 76

The Supply Management Process	78
<i>Strategy and Goal Alignment</i>	78
<i>Ensuring Process Compliance</i>	79
<i>Information Flows</i>	80
<i>Steps in the Supply Process</i>	80
1. Recognition of Need	80
2. Description of Need	81
<i>Purposes and Flow of a Requisition</i>	81
<i>Types of Requisitions</i>	82
<i>Early Supply and Supplier Involvement</i>	83
3. Identification of Potential Sources	84
<i>Issue an RFx</i>	84
4. Supplier Selection and Determination of Terms	85
5. Preparation and Placement of the Purchase Order	85
6. Follow-up and Expediting	88
<i>Assess Costs and Benefits</i>	89
7. Receipt and Inspection	90
<i>Eliminate or Reduce Inspection</i>	90
8. Invoice Clearing and Payment	90
<i>Aligning Supply and Accounts Payable</i>	91
<i>Cash Discounts and Late Invoices</i>	92

9. Maintenance of Records and Relationships	92
<i>Linking Data to Decisions</i>	93
<i>Manage Supplier Relationships</i>	93
Improving Process Efficiency and Effectiveness	93
<i>A Supply Process Flowchart</i>	94
<i>Strategic Spend</i>	95
<i>Nonstrategic Spend</i>	95
Information Systems and the Supply Process	98
<i>Benefits of Information Systems Technology</i>	99
<i>Technology Options</i>	99
<i>Types of Information Systems</i>	100
<i>Intranets and Extranets</i>	102
Technology-Driven Efficiency and Effectiveness	102
<i>Electronic Procurement Systems</i>	103
<i>Electronic or Online Catalogs</i>	105
<i>Electronic Data Interchange (EDI)</i>	105
<i>E-Marketplaces</i>	106
<i>Online Reverse Auctions</i>	107
<i>Radio Frequency Identification (RFID)</i>	109
Implications for Supply	109
Policy and Procedure Manual	111
Conclusion	111
Questions for Review and Discussion	112
References	112
Cases	113
4–1 Bright Technology International	113
4–2 Hemingway College	115
4–3 Portland Bus Company	116

Chapter 5

Make or Buy, Insourcing, and Outsourcing 120

Make or Buy	121
<i>Reasons for Make instead of Buy</i>	123
<i>Reasons for Buying Outside</i>	123
<i>The Gray Zone in Make or Buy</i>	124
Subcontracting	125
Insourcing and Outsourcing	126
Insourcing	126
Outsourcing	127
Outsourcing Supply and Logistics	129

Supply's Role in Insourcing and Outsourcing	129
Conclusion	130
Questions for Review and Discussion	130
References	130
Cases	131
5-1 B&L Inc.	131
5-2 Rondot Automotive	132
5-3 Alicia Wong	133

Chapter 6

Need Identification and Specification 135

Need Criteria in the Value Proposition	136
1. Strategic Criteria	136
2. Traditional Criteria	137
3. Additional Current Criteria	138
Categories of Needs	140
1. Resale	141
2. Raw and Semiprocessed Materials	141
3. Parts, Components, and Packaging	141
4. Maintenance, Repair, and Operating Supplies	142
5. Capital	142
6. Services	145
7. Other	147
Repetitive or Nonrepetitive Requirements?	147
Commercial Equivalents	148
Early Supply and Supplier Involvement	149
Methods of Description	149
Brand	150
"Or Equal"	150
Specification	150
Miscellaneous Methods of Description	152
Combination of Descriptive Methods	153
Sources of Specification Data	153
Standardization and Simplification	154
Conclusion	155
Questions for Review and Discussion	155
References	156
Cases	156
6-1 Moren Corporation (A)	156
6-2 Moren Corporation (B)	158
6-3 Carson Manor	160

Chapter 7

Quality 165

Role of Quality in Supply Management	166
Defining Quality	168
Quality	168
Function	168
Suitability	168
Reliability	168
Quality Dimensions	169
"Best Buy"	169
Determining the "Best Buy"	170
The Cost of Quality	170
Prevention Costs	172
Appraisal Costs	172
Internal Failure Costs	172
External Failure Costs	172
Morale Costs	173
An Overall Quality-Cost Perspective	173
Quality Management Tools and Techniques	173
Total Quality Management (TQM)	173
Continuous Improvement	175
Quality Function Deployment (QFD)	175
Six Sigma	176
Statistical Process Control (SPC)	177
Sampling, Inspection, and Testing	180
The Quality Assurance and Quality Control Group	184
Assuring the Quality of Purchased Services	185
Supplier Certification	189
Quality Standards and Awards Programs	190
ISO 9000 Quality Standards	190
ISO 14000 Environmental Standards	191
The Malcolm Baldrige National (U.S.) Quality Award	192
The Deming Prize	192
Conclusion	192
Questions for Review and Discussion	193
References	193
Cases	194
7-1 The Power Line Poles	194
7-2 Air Quality Systems, Inc.	196

Chapter 8

Quantity and Inventory 198

Quantity and Timing Issues 199

Quantity and Delivery 200

Time-Based Strategies 200

Forecasting 201

Forecasting Techniques 202

Collaborative Planning, Forecasting, and

Replenishment (CPFR) 203

Determining Order Quantities and Inventory Levels 203

Fixed-Quantity Models 203

Fixed-Period Models 205

Probabilistic Models and Service

Coverage 205

Buffer or Safety Stocks and Service Levels 206

Planning Requirements and Resources 208

Material Requirements Planning (MRP) 208

Capacity Requirements Planning (CRP) 209

Manufacturing Resource Planning

(MRP II) 209

Enterprise Resource Planning (ERP)

Systems 210

Supply Implications of MRP 210

Functions and Forms of Inventories 211

The Functions of Inventory 211

The Forms of Inventory 213

Inventory Function and Form

Framework 213

Inventory Management 215

Costs of Inventories 215

ABC Classification 217

Vendor- or Supplier-Managed Inventory

(VMI/SMI) 219

Lean Supply, Just-in-Time (JIT), and Kanban

Systems 219

Managing Supply Chain Inventories 223

Determining Quantity of Services 224

Aggregating Demand 224

Managing Consumption 224

Dimensions of Services and Quantity

Decisions 224

Conclusion 226

Questions for Review and Discussion 226

References 227

Cases 227

8–1 Sedgman Steel 227

8–2 Throsel-Teskey Drilling 228

Chapter 9

Delivery 231

Logistics 232

Role of Logistics in the Economy 233

Role of Supply in Logistics 233

Transportation 233

Transportation Regulation and

Deregulation 234

Supply's Involvement in Transportation 235

Transportation Modes and Carriers 235

Road 236

Rail and Intermodal 236

Pipelines 236

Air 236

Water 237

Radio Frequency Waves 237

Types of Carriers, Providers, and Service Options 237

Types of Carriers 238

Transportation Service Providers 238

Specialized Service Options 238

Selection of Mode and Supplier 239

"Best Value" Delivery Decisions 239

Key Selection Criteria 240

FOB Terms and Incoterms 241

Rates and Pricing 242

Documentation in Freight Shipments 243

Expediting and Tracing Shipments 245

Freight Audits 245

Delivery Options for Services 245

Buyer Location versus Supplier Location 246

On-premise versus Off-premise/Web-based IT

Delivery 247

Transportation and Logistics Strategy 247

Organization for Logistics 248

Conclusion 249

Questions for Review and Discussion 249

References 249

Cases 250

9–1 Penner Medical Products 250

9–2 Andrew Morton 251

Chapter 10 Price 253

Relation of Cost to Price	254
<i>Meaning of Cost</i>	255
How Suppliers Establish Price	256
<i>The Cost Approach</i>	257
<i>The Market Approach</i>	257
Government Influence on Pricing	257
<i>Legislation Affecting Price Determination</i>	258
Types of Purchases	259
<i>Raw Materials/Sensitive Commodities</i>	260
<i>Special Items</i>	260
<i>Standard Production Items</i>	260
<i>Small-Value Items</i>	261
<i>Capital Goods</i>	262
<i>Services</i>	262
<i>Resale</i>	262
The Use of Quotations and Competitive Bidding	262
<i>Steps in the Bidding Process</i>	263
<i>Firm Bidding</i>	264
<i>Determination of Most Advantageous Bid</i>	264
<i>Collusive Bidding</i>	265
<i>Public-Sector Bidding</i>	265
<i>The Problem of Identical Prices</i>	267
Discounts	268
<i>Cash Discounts</i>	268
<i>Trade Discounts</i>	269
<i>Multiple Discounts</i>	270
<i>Quantity Discounts</i>	270
<i>The Price-Discount Problem</i>	270
<i>Quantity Discounts and Source Selection</i>	272
<i>Cumulative or Volume Discounts</i>	272
Contract Options for Pricing	273
<i>Firm-Fixed-Price (FFP) Contract</i>	273
<i>Cost-Plus-Fixed-Fee (CPFF) Contract</i>	273
<i>Cost-No-Fee (CNF) Contract</i>	273
<i>Cost-Plus-Incentive-Fee (CPIF) Contract</i>	273
<i>Provision for Price Changes</i>	273
<i>Contract Cancellation</i>	275
Forward Buying and Commodities	276
<i>Forward Buying versus Speculation</i>	276
<i>Organizing for Forward Buying</i>	277
<i>Control of Forward Buying</i>	277
<i>The Commodity Exchanges</i>	278

<i>Limitations of the Exchanges</i>	279
<i>Hedging</i>	279
<i>Sources of Information Regarding Price Trends</i>	280
Conclusion	281
Questions for Review and Discussion	282
References	282
Cases	282
10-1 Cottrill Inc.	282
10-2 Coral Drugs	284
10-3 Price Forecasting Exercise	286

Chapter 11 Cost Management 288

Strategic Cost Management	290
<i>Sources of Competitive Advantage</i>	290
<i>Frameworks for Cost Management</i>	290
Cost Management Tools and Techniques	293
<i>Total Cost of Ownership</i>	293
<i>Target Pricing</i>	299
<i>The Learning Curve or Manufacturing Progress Function</i>	300
<i>Value Engineering and Value Analysis</i>	301
<i>Activity-Based Costing</i>	301
Negotiation	302
<i>Negotiation Strategy and Practice</i>	303
<i>Framework for Planning and Preparing for Negotiation</i>	304
Conclusion	306
Questions for Review and Discussion	307
References	307
Cases	308
11-1 Deere Cost Management	308
11-2 McMichael Inc.	309
11-3 City of Granston	310

Chapter 12 Supplier Selection 313

The Supplier Selection Decision	314
<i>Decision Trees</i>	315
Identifying Potential Sources	316
<i>Information Sources</i>	317
<i>Standard Information Requests</i>	321
Additional Supplier Selection Decisions	322
<i>Single versus Multiple Sourcing</i>	322

<i>Manufacturer versus Distributor</i>	324
<i>Geographical Location of Sources</i>	325
<i>Supplier Size</i>	326
Supplier Development/Reverse Marketing	326
Evaluating Potential Sources	328
<i>Level 1—Strategic</i>	328
<i>Level 2—Traditional</i>	333
<i>Level 3—Current Additional</i>	335
Ranking Potential Suppliers	340
Conclusion	340
Questions for Review and Discussion	341
References	341
Cases	342
<i>12–1 Loren Inc.</i>	342
<i>12–2 Russel Wisselink</i>	346
<i>12–3 Kettering Industries Inc.</i>	348

Chapter 13

Supplier Evaluation and Supplier Relations 352

Measuring Supplier Performance	353
<i>Key Supplier Performance Indicators</i>	353
Evaluation Methods	354
<i>Informal and Semiformal Evaluation and Rating</i>	354
<i>Executive Roundtable Discussions</i>	354
<i>Formal Supplier Evaluation and Rating</i>	355
<i>Weighted Point Evaluation Systems</i>	356
Supplier Ranking	357
<i>Unacceptable Suppliers</i>	357
<i>Acceptable Suppliers</i>	358
<i>Preferred Suppliers</i>	358
<i>Exceptional Suppliers</i>	358
Supplier Relations	359
<i>Supplier Relations Context</i>	360
<i>Supplier Goodwill</i>	360
<i>The Purchaser–Supplier Satisfaction Matrix</i>	361
<i>Supplier Relationship Management</i>	364
Partnerships	365
<i>SEMATECH's Partnering Perspective</i>	365
<i>Early Supplier/Supply Involvement (ESI)</i>	366
<i>Partner Selection</i>	367
<i>The Longer Time Perspective</i>	367
<i>Co-location/In-plants</i>	368
<i>Concerns about Partnerships</i>	368

Strategic Alliances	369
Conclusion	370
Questions for Review and Discussion	370
References	370
Cases	371
<i>13–1 APC Europe</i>	371
<i>13–2 Plastic Cable Clips</i>	375
<i>13–3 Delphi Corporation</i>	378

Chapter 14

Global Supply Management 383

The Importance of Global Supply	384
<i>Reasons for Global Purchasing</i>	385
<i>Potential Problem Areas</i>	390
Selecting and Managing Offshore Suppliers	398
<i>Global Sourcing Organizations</i>	398
<i>Intermediaries</i>	399
<i>Information Sources for Locating and Evaluating Offshore Suppliers</i>	400
Incoterms	401
<i>Group E—Departure</i>	402
<i>Group F—Main Carriage Unpaid</i>	402
<i>Group C—Main Carriage Paid by Seller</i>	402
<i>Group D—Arrival</i>	403
Tools for Global Supply	404
<i>Countertrade</i>	404
<i>Foreign Trade Zones</i>	407
<i>Bonded Warehouses</i>	409
<i>Temporary Importation Bond (TIB) and Duty Drawbacks</i>	409
Regional Trading Agreements	409
<i>North American Free Trade Agreement (NAFTA)</i>	410
<i>The European Union (EU)</i>	410
<i>ASEAN</i>	410
<i>Mercosur</i>	410
<i>Andean Community</i>	411
<i>The World Trade Organization (WTO)</i>	411
Emerging Markets	411
Conclusion	412
Questions for Review and Discussion	412
References	413
Cases	413
<i>14–1 Trojan Technologies</i>	413
<i>14–2 Marc Biron</i>	415

Chapter 15

Legal and Ethics 417

Legal Authority of Buyer and Seller	418
<i>Legal Authority of the Buyer</i>	419
<i>Personal Liability</i>	420
<i>Authority of Suppliers' Representatives</i>	421
The Uniform Commercial Code	422
<i>Purpose of a Uniform Commercial Code</i>	422
<i>The Purchase Order Contract</i>	423
<i>Acceptance of Offers</i>	424
<i>Purchases Made Orally—Statute of Frauds</i>	425
<i>Inspection</i>	426
<i>Acceptance and Rejection of Goods</i>	426
<i>Warranties</i>	428
<i>Title to Purchased Goods</i>	429
<i>Protection against Price Fluctuations</i>	429
<i>Cancellation of Orders and Breach of Contract</i>	430
Common Law and the Purchase of Services	431
Principles of the Law of Software Contracts	437
E-Commerce and the Law	437
<i>Electronic Signatures</i>	438
<i>U.S. Uniform Electronic Transactions Act</i>	439
<i>Antitrust and E-Marketplaces</i>	439
Intellectual Property Laws	440
<i>Copyright Law</i>	441
<i>Patents</i>	441
<i>Trademarks</i>	442
<i>Industrial Design</i>	442
<i>Geographical Indication</i>	443
Product Liability	443
Alternative Dispute Resolution	444
<i>Commercial Arbitration</i>	444
<i>Mediation</i>	445
<i>Internal Escalation</i>	445
Regulatory Requirements	445
<i>The Sarbanes-Oxley Act</i>	446
<i>Environmental Regulations</i>	446
Ethics	447
<i>Perceptions</i>	451
<i>Conflict of Interest</i>	451
<i>Gifts and Gratuities</i>	451
<i>Promotion of Positive Relationships with Suppliers</i>	454
<i>Reciprocity</i>	454

Corporate Social Responsibility (CSR)	455
Conclusion	455
Questions for Review and Discussion	456
References	456
Cases	457
15–1 Rocky Plains Brewing Ltd.	457
15–2 Sinclair & Winston	459

Chapter 16

Other Supply Responsibilities 463

Receiving	464
Logistics and Warehousing	465
Inbound and Outbound Transportation	466
Production Planning	466
Accounts Payable	466
Investment Recovery	466
<i>Categories of Material for Disposal</i>	468
<i>Responsibility for Material Disposal</i>	471
<i>Keys to Profitable Disposal</i>	472
<i>Disposal Channels</i>	472
<i>Disposal Procedures</i>	474
<i>Selection of Disposal Partners</i>	475
Conclusion	476
Questions for Review and Discussion	477
References	477
Cases	478
16–1 Ross Wood	478
16–2 Raleigh Plastics	479

Chapter 17

Supply Function Evaluation and Trends 481

Organizing for Supply Research	483
<i>Full-Time or Part-Time Research Positions</i>	483
<i>Cross-Functional Teams</i>	484
Supply Research Opportunities	486
<i>Purchased Materials, Products, or Services</i>	486
<i>Commodities</i>	489
<i>Suppliers</i>	490
<i>Assessing Research Results</i>	493
Supply Planning Process	493
Supply Budgets	493
Performance Measurement Systems	494
<i>The Value of Supply Metrics</i>	494

<i>The Challenges</i>	495
<i>Measuring Supplier Performance</i>	496
<i>Supply Management Performance Metrics</i>	496
Establishing Metrics	498
<i>Efficiency Metrics</i>	498
<i>Effectiveness Metrics</i>	498
<i>Operating Reports</i>	499
<i>Validating Results</i>	500
<i>Appraising Team Performance</i>	500
<i>Supply Performance Benchmarking</i>	501
What Is Happening in Supply Management	502
<i>Emphasis on Total Quality Management and Customer Satisfaction</i>	502
<i>Corporate Social Responsibility and Sustainability</i>	503
<i>Globalization versus Local Sourcing</i>	504
<i>Risk Management</i>	505
<i>Safety and Security</i>	505
<i>Supply Processes and Technology</i>	505
<i>Supply Organizations</i>	506
<i>External and Internal Collaboration</i>	506
<i>Metrics and Performance Measurement</i>	507
<i>Innovation</i>	507
<i>Public Procurement</i>	507
Conclusion	507
Questions for Review and Discussion	508
References	508
Cases	509
<i>17–1 Randall Corporation</i>	509
<i>17–2 Fairview School Board</i>	510
<i>17–3 Tanton Foods</i>	511
Indexes	
Case Index	513
Subject Index	514

Chapter One



Purchasing and Supply Management

Chapter Outline

Purchasing and Supply Management

Supply Management Terminology

Supply and Logistics

The Size of the Organization's Spend and Financial Significance

Supply Contribution

The Operational versus Strategic

Contribution of Supply

The Direct and Indirect Contribution of Supply

The Nature of the Organization

Supply Qualifications and Associations

Challenges Ahead

Supply Chain Management

Measurement

Risk Management

Sustainability

Effective Contribution to Organizational Success

The Organization of This Text

Conclusion

Questions for Review and Discussion

References

Cases

1-1 Qmont Mining

1-2 Erica Carson

1-3 Southeastern University

Key Questions for the Supply Decision Maker

Should we

- Rethink how supply can contribute more effectively to organizational goals and strategies?
- Try to find out what the organization's total spend with suppliers really is?
- Identify opportunities for meaningful involvement in major corporate activities?

How can we

- Align our supply strategy with the organization's strategy?
- Get others to recognize the profit-leverage effect of purchasing/supply management?
- Show how supply can affect our firm's competitive position?

PURCHASING AND SUPPLY MANAGEMENT

4 Purchasing and Supply Management

purchasing, procurement, materiel, materials management, logistics, sourcing, supply management, supply chain management

Supply Management Terminology

purchasing

Purchasing, supply management, procurement

supply chain management,

operational responsibilities

strategic responsibilities Strategic sourcing

Lean purchasing lean supply management

Supply and Logistics

¹ Council of Supply Chain Management Professionals, *Glossary of Terms*, <http://www.cscmp.org> (accessed January 10, 2010).

supply chain management

value chain

chain

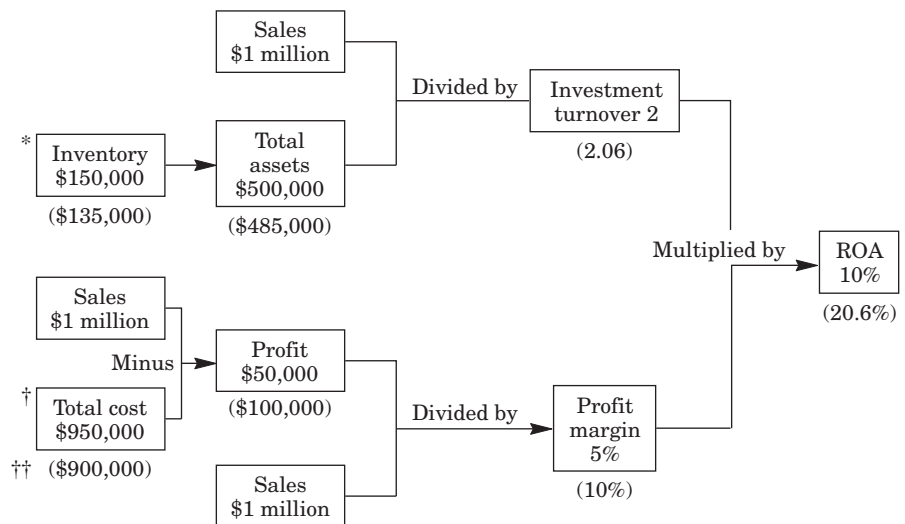
supply network

supply web

THE SIZE OF THE ORGANIZATION'S SPEND AND FINANCIAL SIGNIFICANCE

² D. Hannon, "Purchasing Drives Deeper into Logistics," *Purchasing* 138, no. 7 (2009), p. 76.

³ Institute for Supply Management, "Glossary of Key Supply Management Terms," <http://www.ism.ws>.

FIGURE 1-1

SUPPLY CONTRIBUTION

The Operational versus Strategic Contribution of Supply

avoidance,

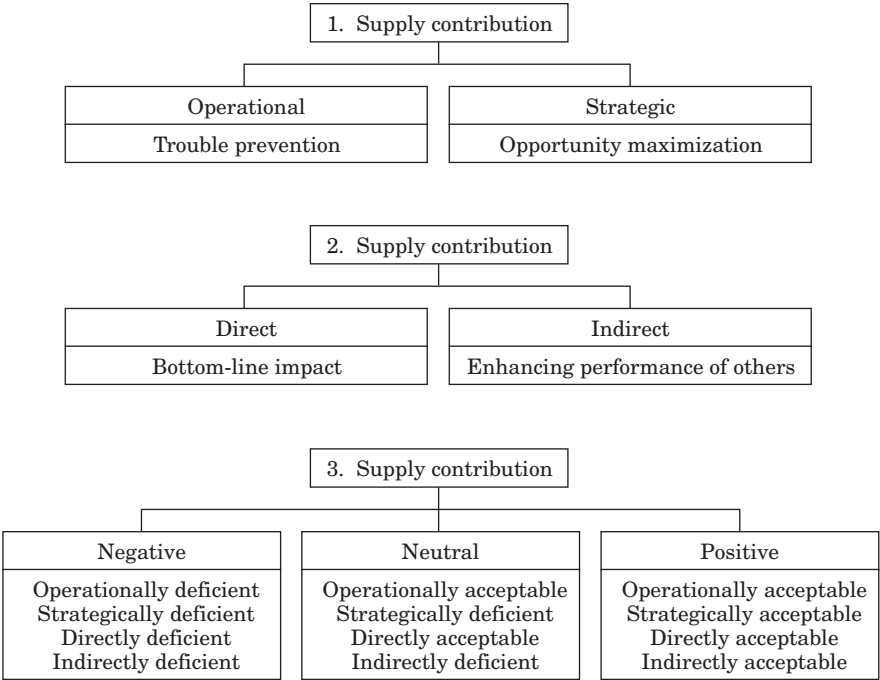
opportunistic

trouble

⁴ M. R. Leenders and P. F. Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, March 2002), p. 104.

FIGURE 1-2

*Value-Driven Purchasing:
Managing the
Key Steps in the
Acquisition Process*



The Direct and Indirect Contribution of Supply

⁵ Leenders and Johnson, *Major Changes in Supply Chain Responsibilities*, p. 89.

and

THE NATURE OF THE ORGANIZATION

FIGURE 1–3

<i>Level:</i>	Municipal	↔	State or Provincial	↔	Federal
<i>Mission:</i>	Social Aims	↔	Other or Combination	↔	Economic
<i>Revenue Generation:</i>	Limited	↔	Combination	↔	Substantial
<i>Size:</i>	Small	↔	Medium	↔	Large
<i>Number of Sites:</i>	Single	↔	Few	↔	Many

FIGURE 1–4

<i>Goods or Services:</i>	Manufacturer	↔	Combination	↔	Services
<i>Strategy:</i>	Low cost	↔	Combination	↔	Differentiation
<i>Size:</i>	Small	↔	Medium	↔	Large
<i>Number of Sites:</i>	Single	↔	Few	↔	Many
<i>Location:</i>	Domestic	↔	Few International	↔	Many International
<i>Financial Strength:</i>	Weak	↔	Medium	↔	Strong
<i>Reputation:</i>	Poor	↔	Medium	↔	Outstanding

Manufacturer	Service Provider
<ul style="list-style-type: none">• The largest portion of needs is generated by customer needs.• The largest portion of spend with suppliers will be on direct requirements which comprise products sold to customers.	<ul style="list-style-type: none">• The largest portion of needs is generated by capital, services, and other requirements enabling employees to provide the service.• In retailing the largest spend is focused on resale requirements.

SUPPLY QUALIFICATIONS AND ASSOCIATIONS

The Journal of Supply Chain Management,

Practix,

CHALLENGES AHEAD

Supply Chain Management

Measurement

Risk Management

Sustainability

Growth and Influence

⁶ S. A. Melnyk et al., *Supply Chain Management 2010 and Beyond: Mapping the Future of the Strategic Supply Chain* (The Eli Broad College of Business at Michigan State University, 2006).

⁷ Leenders and Johnson, *Major Changes in Supply Chain Responsibilities*.

Effective Contribution to Organizational Success

THE ORGANIZATION OF THIS TEXT

Conclusion

Questions for Review and Discussion

References

- The Supply Management Handbook*
- Supply Chain Management: Processes, Partnerships and Performance,*
- The Journal*
- of Supply Chain Management*
- Value-Driven Purchasing: Managing the Key Steps in*
- the Acquisition Process.*

The Purchasing Machine

Creating Corporate Advantage in Purchasing

Management

Journal of Purchasing and Supply

Case 1–1

Qmont Mining

QMONT MINING

ACCOUNTING INFORMATION

REMOTE LOCATIONS

**DEVELOPMENT AND EXPLORATION
SITE DATA**

NEXT STEPS

Case 1–2

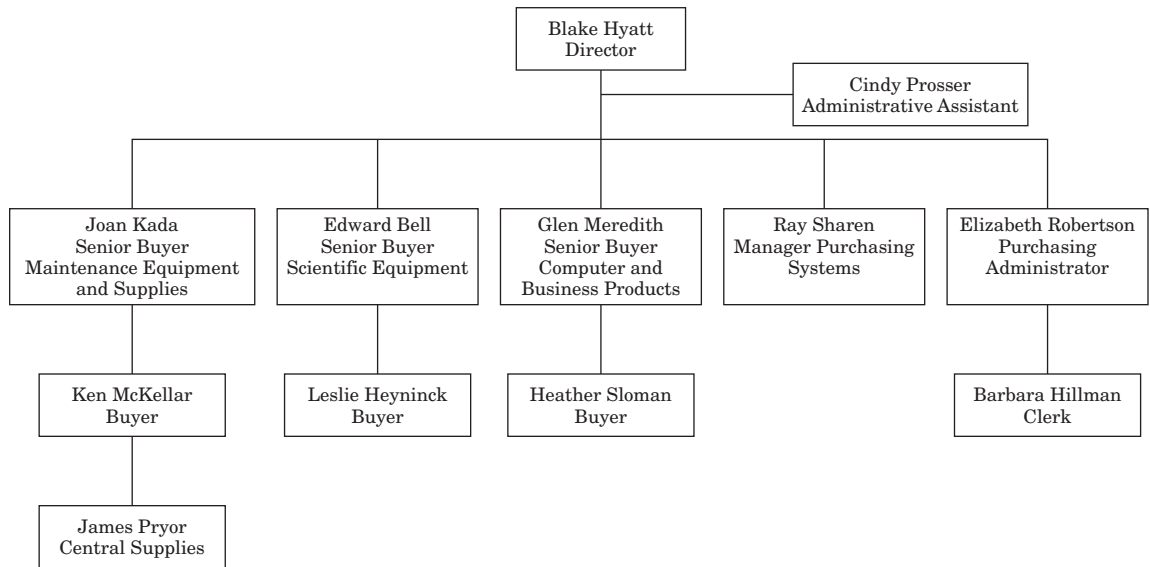
Erica Carson

Case 1–3

Southeastern University

PURCHASING DEPARTMENT

EXHIBIT 1



THE FOLDING MACHINE ISSUE

HEATHER'S OPTIONS

Chapter Two

Supply Strategy



Chapter Outline

Levels of Strategic Planning

Major Challenges in Setting Supply

Objectives and Strategies

Strategic Planning in Supply

Management

Risk Management

Conclusion

Questions for Review and Discussion

References

Cases

Strategic Components

Key Questions for the Supply Decision Maker

Should we

- Become more concerned about the balance sheet?
- Develop a strategic plan for purchasing and supply management?
- Spend a major part of our time on strategic, rather than operational, issues?

How can we

- Anticipate the professional changes we will face in the next 10 years?
- Ensure supply is included as part of the organization's overall strategy?
- Generate the information needed to do strategic planning?

LEVELS OF STRATEGIC PLANNING

¹ R. M. Monczka and K. J. Petersen, *Supply Strategy Implementation: Current State and Future Opportunities* (Tempe, AZ: CAPS Research, 2008). Carter et al., *Succeeding in a Dynamic World: Supply Management in the Decade Ahead* (Tempe, AZ: CAPS Research, 2007). P. F. Johnson and M. R. Leenders, *Supply's Organizational Roles and Responsibilities* (Tempe, AZ: CAPS Research, 2004).

FIGURE 2-1

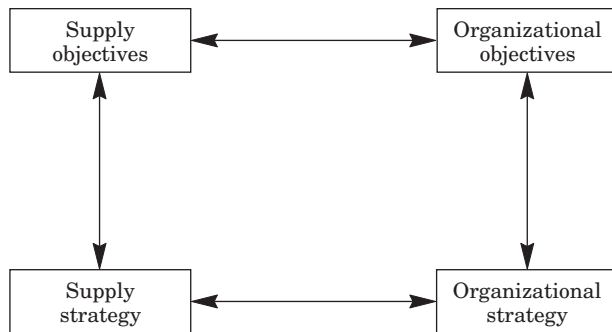
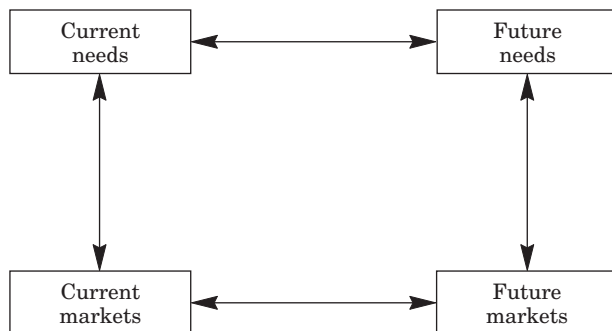


FIGURE 2-2



MAJOR CHALLENGES IN SETTING SUPPLY OBJECTIVES AND STRATEGIES

STRATEGIC PLANNING IN SUPPLY MANAGEMENT

RISK MANAGEMENT

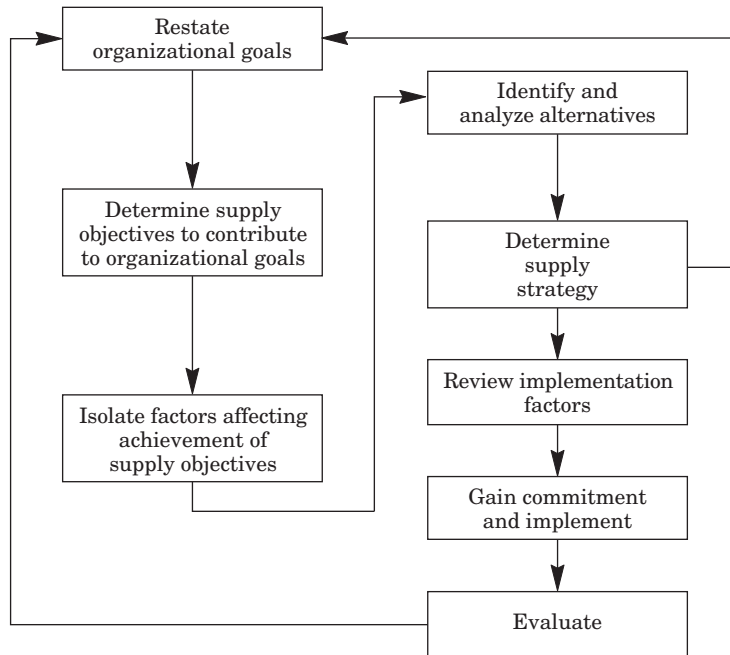
Operational Risk: Supply Interruptions and Delays

Financial Risk: Changes in Price

Reputational Risk

Managing Supply Risks

The Corporate Context

FIGURE 2-3

STRATEGIC COMPONENTS

What?

FIGURE 2-4

- | | |
|---|-----------------------------------|
| 1. What? | Single versus multiple source |
| Make or buy | High versus low supplier turnover |
| Standard versus special | Supplier relations |
| 2. Quality? | Supplier certification |
| Quality versus cost | Supplier ownership |
| Supplier involvement | |
| 3. How Much? | 8. How? |
| Large versus small quantities (inventory) | Systems and procedures |
| 4. Who? | Computerization |
| Centralize or decentralize | Negotiations |
| Quality of staff | Competitive bids |
| Top management involvement | Fixed bids |
| 5. When? | Blanket orders/open orders |
| Now versus later | Systems contracting |
| Blank check system | Blank check system |
| Forward buy | Group buying |
| 6. What Price? | Materials requirements planning |
| Premium | Long-term contracts |
| Standard | Ethics |
| Lower | Aggressive or passive |
| Cost-based | Purchasing research |
| Market-based | Value analysis |
| Lease/make/buy | 9. Why? |
| 7. Where? | Objectives congruent |
| Local, regional | Market reasons |
| Domestic, international | Internal reasons |
| Large versus small | 1. Outside supply |
| | 2. Inside supply |

Quality?

How Much?

² B. S. Fugate and J. T. Mentzer, "Dell's Supply Chain DNA," *Supply Chain Management Review* 8, no. 7 (2004), pp. 20–24.

Who?

When?

What Price?

Where?

How?

Why?

Conclusion

**Questions
for
Review
and
Discussion**

References

Case 2–1

Spartan Heat Exchangers Inc.

SPARTAN HEAT EXCHANGERS

MATERIALS DEPARTMENT

MANUFACTURING PROCESS

NEW BUSINESS STRATEGY

NEW CHALLENGES FOR MATERIAL DEPARTMENT

Case 2–2

Sabor Inc.

AIR FILTRATION AND MARCONIL

SABOR INC.

MARCONIL SUPPLY

AIR FILTRATION SALES

SUPPLIER PROPOSALS FOR LONG-TERM CONTRACTS

EXHIBIT 1

Company	Capacity (in pounds)	Purchases (in pounds)		
		Year 1	Year 2	Year 3
BiltC hemical	80,000	5,000	10,000	20,000
WartonI nc.	40,000	0	3,000	8,000
G. K. Specialties	20,000	0		4,000
Prices		\$39.00	\$42.00	\$44.00

APRIL 15

Case 2–3

Ford Motor Company: Aligned Business Framework³

FORD MOTOR COMPANY

³ This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of Ford Motor Company or any of its employees.

⁴ Tom Stundza, "Ford Has a Better Idea," *Purchasing* 135, no. 12 (2006), p. 49.

⁵ Ford Motor Company 2005 annual report.

⁶ Jeffrey McCracken, "Ford Retools: Seeks Big Savings by Shaking Up Parts Supply System," *The Globe & Mail*, September 29, 2005, p. B19.

ALIGNED BUSINESS FRAMEWORK (ABF)

EXHIBIT 1

Ford Commitments	Bilateral Commitments	Supplier Commitments
<p>Up-front reimbursement of supplier engineering, design, and testing</p> <p>Long-term sourcing</p> <p>Improved commonality and reuse</p> <p>Improved product, cycle plan, and forecast volume stability</p> <p>Sharing of forecast volumes and product plans (beyond 3 years)</p> <p>More disciplined program execution through Ford Global Product Development system</p>	<p>Achieve best-in-class quality</p> <p>Data transparency</p> <p>Agree on detailed cost models</p> <p>Focus on total costs, included elimination of emphasis on bins</p> <p>Competitive cost at Job no. 1, with less emphasis on year-over-year price reductions</p> <p>Open collaboration on global manufacturing, engineering footprint</p> <p>Ongoing senior leadership communication</p> <p>Data exchange remains confidential</p>	<p>Share current financial data to demonstrate health</p> <p>Backstop other commodity suppliers</p> <p>Manage and assure proper working conditions in their facilities and in the facilities of sub-tiers</p> <p>Sourcing of minority- and women-owned suppliers</p> <p>Use mutually agreeable multi-party agreement in directed tier 2 sourcing scenarios</p> <p>Technological innovations will be provided to Ford</p>

⁷ www.ford.com/aboutford/microsites/sustainability-report-2006-07.

⁸ Stundza, "Ford Has a Better Idea, p. 49.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Presentation by Tony Brown, October 7, 2005, www.oesa.org/cmspages/getAttch.php?id=180.

FINALIZING THE PLAN

¹² Jeffrey McCracken, "Ford Retools: Seeks Big Savings by Shaking Up Parts Supply System," *The Globe & Mail*, September 29, 2005, p. B19.

¹³ John Henke, *Planning Perspectives*, Birmingham, Michigan, 2008.

¹⁴ "Ford Key Suppliers Roll Out Innovative Business Model," Ford Motor Company press release, <http://media.ford.com/newsroom/release>, September 29, 2005.

Chapter Three



Supply Organization

Chapter Outline

Objectives of Supply Management
Organizational Structures for Supply
Management

Supply Activities and Responsibilities

Supply Teams

Consortia
Conclusion
Questions for Review and Discussion
References
Cases

Organizing the Supply Group

Key Questions for the Supply Decision Maker

Should we

- Separate sourcing and commodity management responsibilities?
- Use cross-functional sourcing teams to make better supply decisions?
- Move towards greater centralization?

How can we

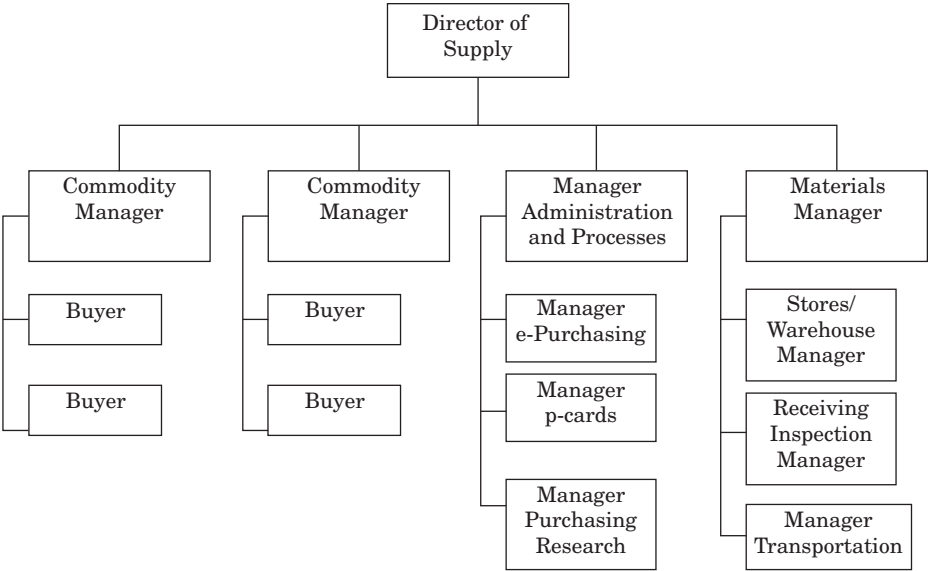
- Fit supply's organizational structure better with the structure of the corporate organizational structure?
- Gain the maximum benefits from our organizational structure?
- Structure and manage teams for effectiveness and efficiency?

OBJECTIVES OF SUPPLY MANAGEMENT

ORGANIZATIONAL STRUCTURES FOR SUPPLY MANAGEMENT

Small and Medium-Sized Organizations

FIGURE 3–1



Large Organizations

Centralized and Decentralized Supply Structures

Hybrid Supply Structure

TABLE 3–1

Advantages	Disadvantages
<ul style="list-style-type: none">• Strategic focus• Greater buying specialization• Ability to pay for talent• Consolidation of requirements—<i>clout</i>• Coordination and control of policies and procedures• Effective planning and research• Common suppliers• Proximity to major organizational decision makers• Critical mass• Firm brand recognition and stature• Reporting line—<i>power</i>• Cost of purchasing low	<ul style="list-style-type: none">• Lack of business unit focus• Narrow specialization and job boredom• Cost of central unit highly visible• Corporate staff appears excessive• Tendency to minimize legitimate differences in requirements• Lack of recognition of unique business unit needs• Focus on corporate requirements, not on business unit strategic requirements• Most knowledge sharing one-way• Even common suppliers behave differently in geographic and market segments• Distance from users• Tendency to create organizational silos• Customer segments require adaptability to unique situations• Top management not able to spend time on suppliers• High visibility of purchasing operating costs

¹ M. R. Leenders and P. F. Johnson, *Major Structural Changes in Supply Organizations* (Tempe, AZ: CAPS Research, 2000).

TABLE 3–2

Advantages	Disadvantages
<ul style="list-style-type: none"> • Easier coordination/communication with operating department • Speed of response • Effective use of local sources • Business unit autonomy • Reporting line simplicity • Undivided authority and responsibility • Suits purchasing personnel preference • Broad job definition • Geographical, cultural, political, environmental, social, language, currency appropriateness • Hide the cost of supply 	<ul style="list-style-type: none"> • More difficult to communicate among business units • Encourages users not to plan ahead • Operational versus strategic focus • Too much focus on local sources—ignores better supply opportunities • No critical mass in organization for visibility/effectiveness—“whole person syndrome” • Lacks clout • Suboptimization • Business unit preferences not congruent with corporate preferences • Small differences get magnified • Reporting at low level in organization • Limits functional advancement opportunities • Ignores larger organization considerations • Limited expertise for requirements • Lack of standardization • Cost of supply relatively high

Specialization within the Supply Function

FIGURE 3-2

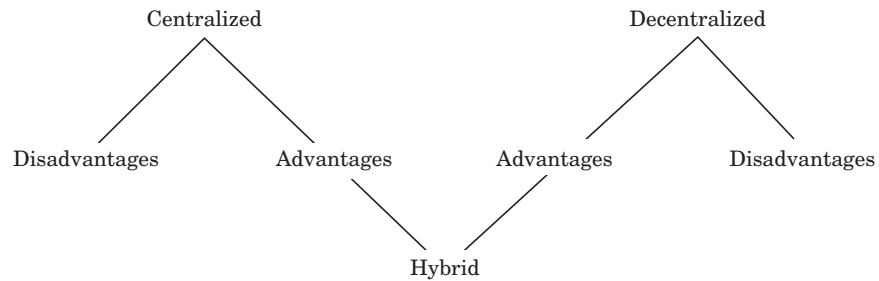


FIGURE 3–3



Job Title: Commodity Specialist
 Department: Supply Management
 Job Function: Locate sources for and procure materials, products, supplies or services to support the assigned commodity requirements of the enterprise.
 Manage the relationships with suppliers.

Primary Duties:

1. Manage source selection and development through a team process including the evaluation of cost, quality, and manufacturing systems.
2. Develop and manage internal and external supplier/customer relationships, including strategic alliances where appropriate.
3. Lead and/or participate on simultaneous engineering teams; facilitate the integration of suppliers into the product delivery process (PDP).
4. Evaluate the cost effectiveness of designs, procure tooling, and qualify processes to assure the product meets specifications.
5. Make recommendations for design change and/or influence design through personal or supplier involvement.
6. Develop and execute supply management strategies to manage cost, quality, and continuous improvement.
7. Develop material control and logistics objectives.
8. Act as a primary communications link between tactical and strategic purchasing functions and business units; participate in team activities.

² M. R. Leenders and P. F. Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, 2002).

FIGURE 3–4



Job Title: Supply Management Planner
Department: Supply Management
Job Function: To expedite, schedule, and/or analyze requirements for purchased materials in accordance with established requirements and inventory control criteria. May interact with suppliers to establish procedural agreements, obtain delivery commitments, and resolve quality problems.

Primary Duties:

1. Manages specific supplier performance and feedback along with managing day-to-day business plan and relationships with supplier.
2. Plans and/or executes inventory goals by product/supplier and plans/develops delivery system to meet material control objectives (i.e., JIT delivery, P.O.U.D., EDI).
3. Schedules material based on requirements and expedites deliveries that are delinquent or expected to be delinquent. Tracks and resolves problems with inbound shipments.
4. Interprets systems output to determine items requiring follow-up to suppliers on materials ordered to assure on-time delivery.
5. Is involved with the day-to-day problem resolution/corrective action with suppliers: to scrap, return, reclaim, or replace rejected material. Is responsible for bringing products within specifications.
6. Acts as the primary communications link between tactical and strategic purchasing functions and business unit; participates in supply management team activities.
7. Costs and implements current part revisions, including tooling, as part of the decision processing activity. Also reads and reacts to engineering decisions.
8. Conducts price/economic order quantity analysis and compares multiple quotes, including piece price, freight, duty, performance systems, and supplier rating. Also investigates invoice price errors.

Structure for Direct and Indirect Spend

Managing Organizational Change in Supply

³ Leenders and Johnson, *Major Structural Changes in Supply Organizations* (Tempe, AZ: CAPS Research, May 2000).

ORGANIZING THE SUPPLY GROUP

The Chief Purchasing Officer (CPO)

⁴T. E. Hendrick, and J. A. Ogden, *Chief Purchasing Officers' Compensation Benchmarks and Demographics: A 2001 Study of Fortune 500 Firms* (Tempe, Arizona: CAPS Research, 2002).

⁵ P. F. Johnson, and M. R. Leenders, *Supply's Organizational Roles and Responsibilities* (Tempe, AZ: CAPS Research, 2004).

⁶ P. F. Johnson, and M. R. Leenders, *Supply Leadership Changes* (Tempe, AZ: CAPS Research, 2007).

Reporting Relationship

SUPPLY ACTIVITIES AND RESPONSIBILITIES

What Is Acquired

Supply Chain Activities

⁷ Leenders and Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, 2002).

TABLE 3–3

Area of Responsibility	Activities
Purchasing/buying	<ul style="list-style-type: none"> • Creating contracts and supply agreements for materials, services, and capital items • Managing key purchasing processes related to supplier selection, supplier evaluation, negotiation, and contract management
Purchasing research	<ul style="list-style-type: none"> • Identifying better techniques and approaches to supply management, including benchmarking processes and systems • Identifying medium- and long-term changes in markets and developing appropriate commodity strategies to meet future needs • Identifying supply chain trends and opportunities for better materials and services
Inventory control	<ul style="list-style-type: none"> • Managing inventories and expediting material delivery • Establishing and monitoring vendor-managed inventory systems
Transportation	<ul style="list-style-type: none"> • Managing inbound and outbound transportation services, including carrier selection
Environmental and investment recovery/disposal	<ul style="list-style-type: none"> • Managing supply chain–related activities to assure compliance with legal and regulatory requirements and with company environmental policies • Managing disposal of surplus materials and equipment
Forecasting and planning	<ul style="list-style-type: none"> • Planning production and forecasting short-, medium-, and long-term requirements
Outsourcing and subcontracting	<ul style="list-style-type: none"> • Evaluating potential suppliers and negotiating contracts • Supporting the transition from internal production to external supply and vice versa
Nonproduction/nontraditional purchases	<ul style="list-style-type: none"> • Managing cost-effective delivery of nonproduction and nontraditional purchases, such as office supplies, security services, janitorial services, advertising, and insurance
Supply chain management	<ul style="list-style-type: none"> • Implementing and managing key supplier relationships and supplier partnerships, including supplier development and participation on cross-functional and cross-organizational teams • Developing strategies that use the supply network to provide value to end customers and contribute to organizational goals

Type of Involvement

Involvement in Corporate Activities

Influence of the Industry Sector on Supply Activities

SUPPLY TEAMS

Leading and Managing Teams

Cross-Functional Supply Teams

⁸ Johnson and Leenders, *Supply Leadership Changes* (Tempe, AZ: CAPS Research, 2007, p. 59).

Other Types of Supply Teams

CONSORTIA

⁹ Leenders and Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, 2002).

¹⁰ T. E. Hendrick, *Purchasing Consortiums: Horizontal Alliances among Buying Firms Buying Common Goods and Services* (Tempe, AZ: Center for Advanced Purchasing Studies, 1997); P. F. Johnson, "The Pattern of Evolution in Public Sector Purchasing Consortia," *International Journal of Logistics: Research & Applications* 2, no. 1(1999), pp. 57–73.

¹¹ T. E. Hendrick, *Purchasing Consortiums: Horizontal Alliances among Buying Firms Buying Common Goods and Services* (Tempe, AZ: Center for Advanced Purchasing Studies, 1997).

Conclusion

Questions for Review and Discussion

References

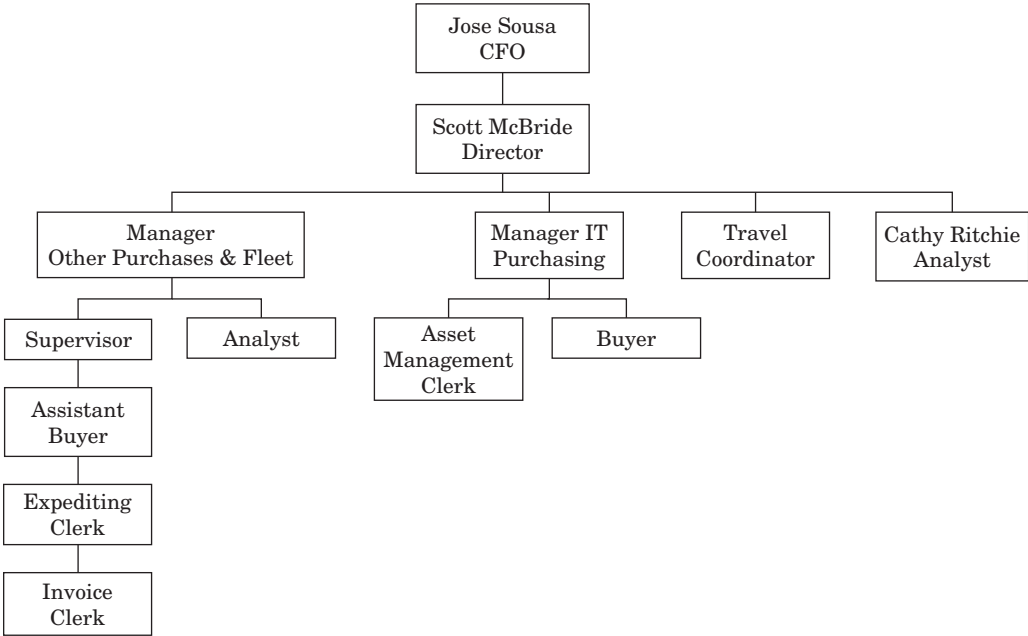
Case 3–1

Iowa Elevators

IOWA ELEVATORS

**PURCHASING AND SUPPLY
MANAGEMENT**

EXHIBIT 1



ANALYSIS OF CORPORATE SPEND

EXHIBIT 2

Spend Category	Annual Spend*
Farm supplies	\$ 254,406
Information technology and telecommunications	17,187
Fees, levies, memberships	26,301
Energy	8,602
Financial services and interest expense	24,461
Fleet	4,229
Insurance	5,239
Packaging	10,551
Professional services	7,708
MRO & construction	127,829
Transportation services	208,927
Travel and entertainment	3,557
Other	17,350
Miscellaneous and unclassified	11,926
Total	<u>\$ 728,273</u>

EXHIBIT 3

Category	Average Inventory	Annual Purchases
Crop protection products	\$ 65,098	\$ 124,696
Equipment and supplies	22,388	13,743
Fertilizer	20,938	130,557
Seed	10,389	41,787
Total	\$ 118,813	\$ 310,783

THE MIS PROPOSAL**PREPARATION FOR THE MEETING**

Case 3–2**Roger Haskett****MORROW UNIVERSITY**

EXHIBIT 1

Capital Leases

If any of the following criteria are met, a lease must be classified as a capital lease:

- 1. Ownership of the property is transferred to the lessee at the end of the term, or
- 2. The lease contains an option to purchase the property for less than fair market value, or
- 3. The lease term is greater than 75 percent of the property's estimated economic life, or
- 4. The present value of the lease payments exceeds 90 percent of the fair market value of the property.

Operating Leases

Any lease that is not a capital lease is an operating lease.

THE EQUIPMENT LEASE PROPOSAL

DECISION

EXHIBIT 2**MENARD LEASING**Attn: Roger Haskett

We are pleased to present the following proposal as a basis for further discussion concerning the financing by Menard Leasing of your planned equipment acquisitions. We appreciate the opportunity to make this proposal to you. Menard Leasing looks forward to working with you to complete this transaction.

LESSEE:	Morrow University
EQUIPMENT:	(2) Curtis SV1 Module with (4) 2.1 FJLOP Processors & Full Care Warranty until February 28, 2008 (as described in attached quotations).
TERM:	42 months, commencing September 1, 2004, or 15 days after delivery of processors.
ESTIMATED PAYMENT:	\$115,000.00 due September 1, 2004, followed by 3 annual payments of \$90,000.00 commencing March 1, 2005, payable in U.S. funds, with all applicable taxes.
ACTUAL PAYMENT:	The Estimated Monthly Payment is based on Menard's cost of funds on the date of this letter and, to arrive at the Actual Monthly Payment, it will be adjusted upward or downward to reflect changes in interest rates.
END OF LEASE CONDITIONS:	<ol style="list-style-type: none"> 1) Purchase for \$90,000.00 February, 28, 2008. 2) The absence of any material adverse changes in the Lessee's financial health or creditworthiness prior to the Funding Date. 3) The completion and due execution and delivery of Menard's standard form of Master Lease/Lease Arrangement, Delivery & Acceptance Certificate and other documents, as Menard may reasonably require, all such documents to be in form and substance satisfactory to Menard in all respects; such documents will supercede this letter once executed and delivered. 4) The acceptance of this proposal by the Lessee by June 28, 2004. 5) Lessee agrees to install and accept the Equipment set forth within ten (10) days of delivery or notify the Lessor of any problems with the Equipment within the ten days. Acceptance shall also be based on running the basic hardware and software diagnostics. In addition, Lessee agrees to accept partial shipment of the Equipment with the understanding that partial shipment shall include an operable system.

ACCEPTED this _____ day of June, 2004.

MENARD LEASING

MORROW UNIVERSITY

Pamela Switzer

(signature)

Pamela Switzer

(name/title)

Chapter Four

Supply Processes and Technology



Chapter Outline

The Supply Management Process

Improving Process Efficiency and Effectiveness

Information Systems and the Supply Process

Technology-Driven Efficiency and Effectiveness

Implications for Supply
Policy and Procedure Manual
Conclusion
Questions for Review and Discussion
References
Cases

1. Recognition of Need
2. Description of Need
3. Identification of Potential Sources
4. Supplier Selection and Determination of Terms
5. Preparation and Placement of the Purchase Order
6. Follow-up and Expediting
7. Receipt and Inspection
8. Invoice Clearing and Payment
9. Maintenance of Records and Relationships

Key Questions for the Supply Decision Maker

Should we

- Use an e-procurement system to improve the efficiency of the supply process?
- Use online reverse auctions to buy nonstrategic goods and services?
- Consider establishing a supplier-managed inventory program for MRO requirements?

How can we

- Handle lower-value purchases more efficiently?
- Streamline the process so that supply managers are more involved in the earlier stages?
- Communicate more effectively with our internal business partners?

¹ Global Chief Procurement Officer Survey 2009, CapGemini Consulting, www.capgemini.com/consulting.

THE SUPPLY MANAGEMENT PROCESS

Strategy and Goal Alignment

Ensuring Process Compliance

Information Flows

Steps in the Supply Process

1. RECOGNITION OF NEED

2. DESCRIPTION OF NEED

Purposes and Flow of a Requisition

Types of Requisitions

Early Supply and Supplier Involvement

3. IDENTIFICATION OF POTENTIAL SOURCES

Issue an RFx

4. SUPPLIER SELECTION AND DETERMINATION OF TERMS

5. PREPARATION AND PLACEMENT OF THE PURCHASE ORDER

FIGURE 4-1 Purchase Order

Source: Honeywell Flight Systems Division.

PURCHASE ORDER NO.	CO. NO.

Honeywell

PURCHASE ORDER

HONEYWELL INC.
SPERRY COMMERCIAL FLIGHT SYSTEMS
21111 N. 19TH AVENUE
PHOENIX, ARIZONA 85027-2708

HONEYWELL INC.
SPERRY COMMERCIAL FLIGHT SYSTEMS
P.O. BOX 52006
PHOENIX, ARIZONA 85072-2006

TERMS

F.O.B.

TAX CODE	PROJECT CODE	DIVISION

1. NONTAXABLE—FOR RESALE
CERT NO. 07-001648
2. NONTAXABLE—SERVICES
3. NONTAXABLE—PRODUCTIVE EQUIP.
4. TAXABLE—NONPRODUCTIVE GROUP
5. TAXABLE—RENTALS CONSUMABLES

Quality Control Requirements of QCS 210 apply as well as codes noted.
General Packaging and Shipping instructions GPSI-100 apply as well as specific supplier packaging codes noted

11132-200 (REV 1-88) HONEYWELL INC.

DESTINATION	ACCOUNT CONT -- SUB	COMM CODE	PROD CODE	J.O. A.O. NO.	DEPT
<div>This Purchase Order or Change Order including all provisions set forth hereon and any continuation sheets and addendums and Buyer's then current Purchase Order General Terms will be deemed as being accepted by the Seller upon the initiation of performance hereunder. Unless specifically requested on the face hereof acknowledgement by the seller is not required.</div>					
DESTINATION	ACCOUNT CONT -- SUB	COMM CODE	PROD CODE	J.O. A.O. NO.	DEPT
<div>Honeywell <i>J. Jones</i> AUTHORIZED SIGNATURE</div>					
ATT.					


ITEM 1	REQUISITION NO. (S)	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.
MISC. CODE AND SPECIAL CHARGES		PRIORITY OR ALLOTMENT NO.				CONTRACT NO. ITEM 1							
ITEM 2	REQUISITION NO. (S)	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.	WEEK	QTY.
MISC. CODE AND SPECIAL CHARGES		PRIORITY OR ALLOTMENT NO.				CONTRACT NO. ITEM 2							
						SPLIT							

IF GOVERNMENT CONTRACT NUMBER IS SHOWN THIS IS A RATED ORDER CERTIFIED FOR NATIONAL DEFENSE USE, AND YOU ARE REQUIRED TO FOLLOW ALL THE PROVISIONS OF THE DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM REGULATION (15 CFR PART 350)

- 5. A requirement, in case of rejection, that the seller receive a new order before replacement is made.
- 6. A precise description of quality requirements and the method of quality assurance/control.
- 7. Provision for cancellation of the order if deliveries are not received on the date specified in the order.
- 8. A statement that the buyer refuses to accept drafts drawn against the buyer.
- 9. Quantity provisions for overshipments or undershipments.
- 10. Special interest provisions—for example, arbitration or the disposition of tools.

While a discussion about routing may seem unnecessary in the age of electronic processes, it is important to understand the flow of information. Who needs access to

FIGURE 4-2

		RAYTHEON COMPANY SORENSEN OPERATION SOUTH NORWALK, CONN.				BLANKET ORDER RELEASE <div>THIS NUMBER MUST APPEAR ON ALL DOCUMENTS AND PACKAGES</div>					
REQUISITION NO.		REQUISITIONED BY		UNIT		RELEASE DATE		PURCHASE ORDER NO.		RELEASE NO.	
TO				SHIP VIA UPS		ACCOUNT NO.		PROD. SHOP ORDER NO.		DELIVER MATERIAL TO (INTERNAL)	
SHIP MATERIAL TO ABOVE ADDRESS UNLESS INDICATED OTHERWISE BELOW				SORENSEN							
DELIVERY AT DESTINATION				VENDOR CODE 620393		MATERIAL CODE		TAX- ABLE		YES NO <input type="checkbox"/> <input checked="" type="checkbox"/>	
RECEIVED Date		Quantity	Item	Quantity Ordered	DESCRIPTION		Part Number		Qty	Net Unit Price	
x INDICATES CONFIRMING ORDER					BLANKET ORDER TERMS AND CONDITIONS APPLY					TOTAL	
DATE		YOUR									
RECEIVING DEPARTMENT USE ONLY											

6. FOLLOW-UP AND EXPEDITING

FIGURE 4-3

aps.

PURCHASING DEPARTMENT • P.O. BOX 21666 • PHOENIX, ARIZONA 85036

Date
This is our Request

☐ This Form

☐ Wire

☐ Phone

Our Purchase Order No.	Request for Quotation No.	Your Invoice No.	Date	Amount	Your Reference
------------------------	---------------------------	------------------	------	--------	----------------

☐ 1. RUSH SHIPMENT. ADVISE EARLIEST DATE.

☐ 2. WHEN WILL SHIPMENT BE MADE? IF SHIPPED, ADVISE METHOD.

☐ 3. PLEASE TRACE SHIPMENT.

☐ 4. IF SHIPMENT HAS BEEN MADE, MAIL INVOICE, TODAY.

☐ 5. PLEASE MAIL RECEIPTED FREIGHT BILL.

☐ 6. WHY DID YOU NOT SHIP AS PROMISED? ADVISE WHEN YOU WILL SHIP.

☐ 7. WILL YOU SHIP ON DATE SHOWN ON PURCHASE ORDER?

☐ 8. RELEASE SHIPMENTS AS SHOWN UNDER REMARKS.

☐ 9. PLEASE MAIL US ACCEPTANCE COPY OR OUR PURCHASE ORDER.

☐ 10. PLEASE ACKNOWLEDGE OUR ORDER.

☐ 11. PLEASE MAKE YOUR SHIPPING DATE MORE SPECIFIC.

☐ 12. WHEN WILL BALANCE OF ORDER BE SHIPPED.

☐ 13. WHEN WILL PRICES BE SUBMITTED? PLEASE RUSH.

☐ 14. PLEASE MAIL SHIPPING NOTICE.

☐ 15. PLEASE INDICATE OUR PURCHASE ORDER NUMBER ON PAPERS REFERRED TO OR ATTACHED.

☐ 16. WE HAVE NO RECORD OF TRANSACTION COVERED BY INVOICE. ADVISE DATE OF SHIPMENT, NAME OF PERSON PLACING ORDER AND FURNISH SIGNED DELIVERY RECEIPT COPY.

☐ 17. INVOICE RETURNED HEREWITH.

☐ 18. INVOICE IS REQUIRED IN COPIES.

☐ 19. PRICE OR DISCOUNT IS NOT IN ACCORDANCE WITH QUOTATION.

☐ 20. TERMS ON INVOICE ARE NOT IN ACCORDANCE WITH THE PURCHASE ORDER.

☐ 21. ENCLOSED INVOICE SENT TO US IN ERROR.

☐ 22. DIFFERENCE IN QUANTITY.

☐ 23. UNIT PRICE INCORRECT.

☐ 24. EXTENSION INCORRECT.

☐ 25. PURCHASE ORDER NO. LACKING OR INCORRECT.

☐ 26. SALES TAX DOES NOT APPLY – See reverse side of Purchase Order.

☐ 27. SHOULD BE BILLED F.O.B. DESTINATION.

☐ 28. HAVE YOU CONSIDERED THIS ORDER COMPLETE?

☐ 29.

Vendor

By

Purchasing

By

510-00J

Assess Costs and Benefits

7. RECEIPT AND INSPECTION

Eliminate or Reduce Inspection

8. INVOICE CLEARING AND PAYMENT

Aligning Supply and Accounts Payable

Cash Discounts and Late Invoices

9. MAINTENANCE OF RECORDS AND RELATIONSHIPS

Linking Data to Decisions

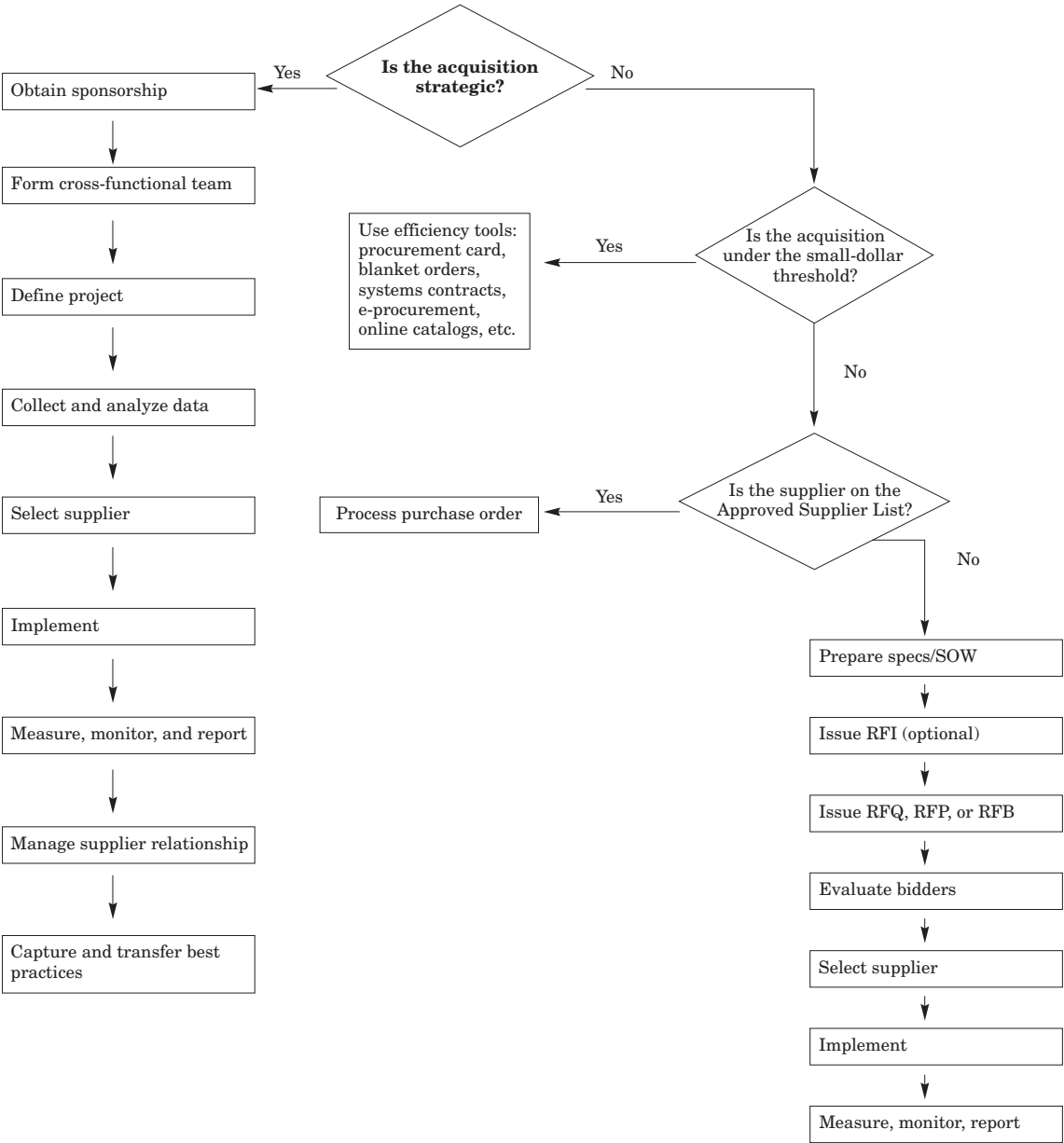
Manage Supplier Relationships

IMPROVING PROCESS EFFICIENCY AND EFFECTIVENESS

A Supply Process Flowchart

The flowchart in Figure 4-4 demonstrates one way an organization might improve efficiency and effectiveness of the supply management process. This begins with an assessment of the nature of the spend. Is the purchase strategic?

FIGURE 4-4 A Supply Process Flowchart



Strategic Spend

Nonstrategic Spend

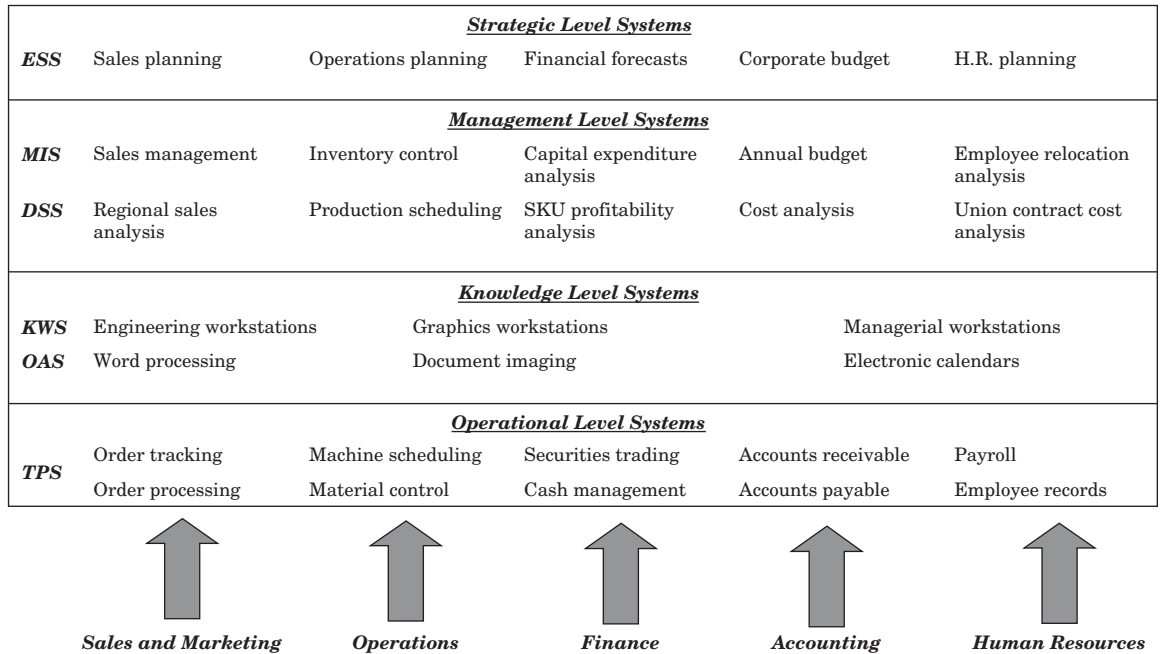
INFORMATION SYSTEMS AND THE SUPPLY PROCESS

Benefits of Information Systems Technology

Technology Options

Types of Information Systems

FIGURE 4-5



Intranets and Extranets

TECHNOLOGY-DRIVEN EFFICIENCY AND EFFECTIVENESS

Electronic Procurement Systems

² Johnson, and M. R. Leenders, *Supply Leadership Changes*, Tempe (AZ: CAPS Research, March 2007).

Electronic or Online Catalogs

Electronic Data Interchange (EDI)

³ A. E. Flynn, *Catalog Management: Implementation Strategies* (Tempe, AZ: CAPS Research, October 2004).

E-Marketplaces

Online Reverse Auctions

Radio Frequency Identification (RFID)

IMPLICATIONS FOR SUPPLY

⁴P. F. Johnson, "Supply Organizational Structures," CAPS Research, June 2003.

POLICY AND PROCEDURE MANUAL

Conclusion

Questions for Review and Discussion

References

Case 4–1

Bright Technology International

COMPANY BACKGROUND

THE MJ10012 TRANSISTOR

PURCHASING AT BTI

Year	Price per Unit
Current quote	4.95
Previous year	3.50
Two years prior	2.00
Three years prior	1.69

CONCLUSION

Case 4–2

Hemingway College

HEMINGWAY COLLEGE

**IMPLEMENTING THE PURCHASING
MODULE**

RESOURCE PLANNING SYSTEM

TRAINING

ALTERNATIVES

IMPLEMENTATION SCHEDULE

Case 4–3

Portland Bus Company

PORTLAND BUS

EXHIBIT 1

Supplier	Profile	Current Spend
Dawson Manufacturing	Sheet metal and aluminum fabrication, using laser, CNC machining and plasma cutting technologies. Facility size: 110,000 sq. ft. Subsidiary of a North American-based automotive parts manufacturer with annual revenues of \$2 billion.	\$575,000
Imperial Fabrication	Sheet metal fabrication using laser and computer integrated systems for the design, engineering and manufacturing of quality custom and standard products. Process capabilities: laser cutting, welding, punching, and bending. Facility size: 100,000 sq. ft. Privately held.	\$650,000
Neelin Mfg. Inc.	Contract manufacturing, machining, stamping, and assembly operations. Facility size: 80,000 sq. ft. Privately held.	Being considered for future business
C.R.N. Products Inc.	Sheet metal fabrication, assembly, and painting for small- and high-volume production. Facility size: 60,000 sq. ft.	\$210,000
Benson Sheet Metal	Stamping and punching presses, riveting, steel shearing, tube forming, spot welding, and coating services. Facility size: 50,000 sq. ft. Privately held.	\$460,000
Beranger Enterprises Ltd.	Light sheet metal processing and welding (1/2" and thinner) as well as CNC machining and turning of carbon steel, stainless steel, and aluminum. Facility size: 100,000 sq. ft. Privately held.	\$40,000
Camber Machining Ltd.	Machining, metal punching, and fabrication, using CNC equipment and on-site engineering capabilities. Facility size: 50,000 sq. ft. Privately held.	\$40,000

METAL COMPONENTS**THE REVERSE AUCTION**

EXHIBIT 2

Package	# Part Numbers	Annual Spend (\$)
Hinges	7	32,551
Ducts 1	10	208,838
Ducts 2	13	106,236
Brackets 1	12	53,773
Brackets 2	12	119,912
Brackets 3	3	65,389
Brackets 4	9	111,500
Brackets 5	16	54,901
Brackets 6	13	65,997
Brackets 7	12	78,950
Brackets 8	21	48,108
Brackets 9	39	83,557
Brackets 10	15	84,630
Brackets 11	14	55,673
Brackets 12	16	64,734
Brackets 13	7	137,624
Brackets 14	2	71,675
Brackets 15	21	219,922
Brackets 16	18	133,896
Brackets 17	20	166,114
Brackets 18	10	49,771
<i>Total</i>	<i>290</i>	<i>2,013,751</i>

PREPARING FOR THE REVERSE AUCTION

Chapter Five

Make or Buy, Insourcing, and Outsourcing



Chapter Outline

Make or Buy

Subcontracting

Insourcing and Outsourcing

Insourcing

Outsourcing

Outsourcing Supply and Logistics

Supply's Role in Insourcing and
Outsourcing

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

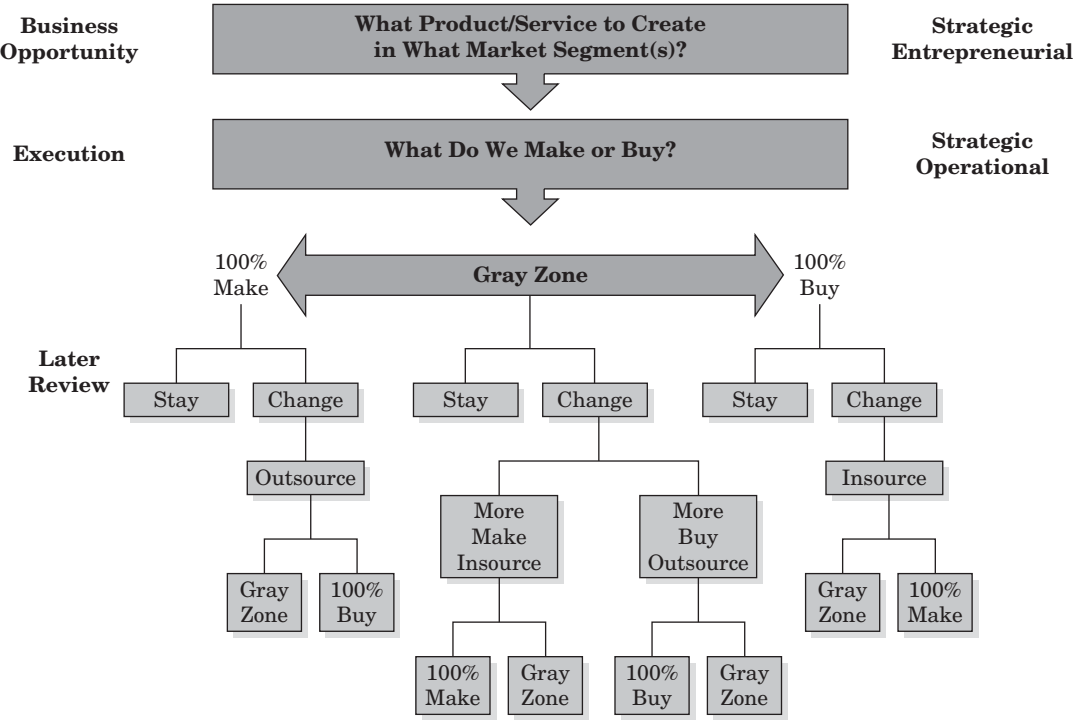
- Change the way we currently take make or buy decisions?
- Consider insourcing more?
- Outsource more?

How can we

- Improve our ability to find insourcing opportunities?
- Ensure that supply considerations receive full attention in make or buy decisions?
- Develop our outsourcing expertise better?

MAKE OR BUY

FIGURE 5-1



Reasons for Make instead of Buy

Reasons for Buying Outside

TABLE 5–1

1. The quantities are too small and/or no supplier is interested or available in providing the goods.
2. Quality requirements may be so exacting or so unusual as to require special processing methods that suppliers cannot be expected to provide.
3. Greater assurance of supply or a closer coordination of supply with the demand.
4. To preserve technological secrets.
5. To obtain a lower cost.
6. To take advantage of or avoid idle equipment and/or labor.
7. To ensure steady running of the corporation's own facilities, leaving suppliers to bear the burden of fluctuations in demand.
8. To avoid sole-source dependency.
9. To reduce risk.
10. The purchase option is too expensive.
11. The distance from the closest available supplier is too great.
12. A significant customer required it.
13. Future market potential for the product or service is expanding rapidly.
14. Forecasts of future shortages in the market or rising prices.
15. Management takes pride in size.

TABLE 5-2

1. The organization may lack managerial or technical expertise in the production of the items or services in question.
2. Lack of production capacity. This may affect relations with other suppliers or customers as well.
3. To reduce risk.
4. The challenges of maintaining long-term technological and economic viability for a noncore activity.
5. A decision to make, once made, is often difficult to reverse. Union pressures and management inertia combine to preserve the status quo. Thus, buying outside is seen as providing greater flexibility.
6. To assure cost accuracy.
7. There are more options in potential sources and substitute items.
8. There may not be sufficient volume to justify in-house production.
9. Future forecasts show great demand or technological uncertainty, and the firm is unable or unwilling to undertake the risk of manufacture.
10. The availability of a highly capable supplier nearby.
11. The desire to stay lean.
12. Buying outside may open up markets for the firm's products or services.
13. The ability to bring a product or service to market faster.
14. A significant customer may demand it.
15. Superior supply management expertise.

The Gray Zone in Make or Buy

SUBCONTRACTING

INSOURCING AND OUTSOURCING

INSOURCING

OUTSOURCING

OUTSOURCING SUPPLY AND LOGISTICS

SUPPLY'S ROLE IN INSOURCING AND OUTSOURCING

Conclusion

Questions for Review and Discussion

References

Case 5–1

B&L Inc.

B&L INC. BACKGROUND

THE OUTSOURCING DECISION

THE OUTRIGGER BRACKET

EXHIBIT 1

Parts	Mayes Steel Fabricators	B&L Manufacturing Costs
T-67	\$14.60	\$17.92
T-75	21.10	17.92
T-69	18.50	45.20
T-77	13.00	10.37
T-70	41.00	58.69
Total	\$108.20	\$150.10

Case 5–2

Rondot Automotive

RONDOT WORLDWIDE

OUTSOURCING OPPORTUNITY

GREVEN E-COATING

PREPARING FOR THE MEETING

Case 5–3

Alicia Wong

GENERAL COMPANY BACKGROUND

THE SUPPLY AREA

**CURRENT PRACTICE: PURCHASING
MUSTARD EXTERNALLY**

**SUGGESTED CHANGE:
MANUFACTURING MUSTARD
IN-HOUSE**

Chapter Six



Need Identification and Specification

Chapter Outline

Need Criteria in the Value Proposition

Early Supply and Supplier Involvement

Methods of Description

Categories of Needs

Standardization and Simplification

Conclusion

Questions for Review and Discussion

References

Cases

Repetitive or Nonrepetitive
Requirements?

Commercial Equivalents

Key Questions for the Supply Decision Maker

Should we

- Rethink our approach to strategic requirements?
- Initiate a simplification and standardization program?
- Change our specification method?

How can we

- Define our internal needs better to suppliers?
- Improve our acquisition of services?
- Leverage our environmental successes in the supply chain?

NEED CRITERIA IN THE VALUE PROPOSITION

1. Strategic Criteria

2. Traditional Criteria

3. Additional Current Criteria

CATEGORIES OF NEEDS

TABLE 6–1

Categories of Needs	
1. Resale	Resellers comprise retailers, wholesalers, distributors, agents, brokers, and traders. What they can resell covers the full range of the remaining five categories below.
2. Raw and Semiprocessed Materials	Most users of materials are converters, such as factories, and this category includes commodities, agricultural, and industrial.
3. Parts, Components, and Packaging	Assemblers use parts and components produced by their suppliers to create a finished product. Parts and components may be standard or special depending on the decision of the designer of the finished product.
4. Maintenance, Repair, and Operating Suppliers (MRO) and Small Value Purchases (SVP)	Every organization has MRO requirements and SVPs. The availability of MRO suppliers is critical to maintain continued uninterrupted operation of the office, factory, facility, etc. Because many MRO requirements are relatively small in dollar value, SVPs are also included in this category. For SVPs, assuring availability at minimum acquisition cost is a challenge.
5. Capital	Any requirement that accountants classify as capital, and, therefore, an investment, becomes a capital item. Equipment, IT, real estate, and construction are included in this category. Capital items can be depreciated, are often bought under a separate budgetary allocation, and may require special financing arrangements.
6. Services	Every organization acquires a variety of services.
7. Other	Anything not covered by the above categories falls into this last one. Major requirements could be energy and water. This category would also include unusual and infrequent requirements, probably better dealt with on an ad hoc or project basis.

1. Resale

2. Raw and Semiprocessed Materials

3. Parts, Components, and Packaging

4. Maintenance, Repair, and Operating Supplies

5. Capital

6. Services

TABLE 6–2

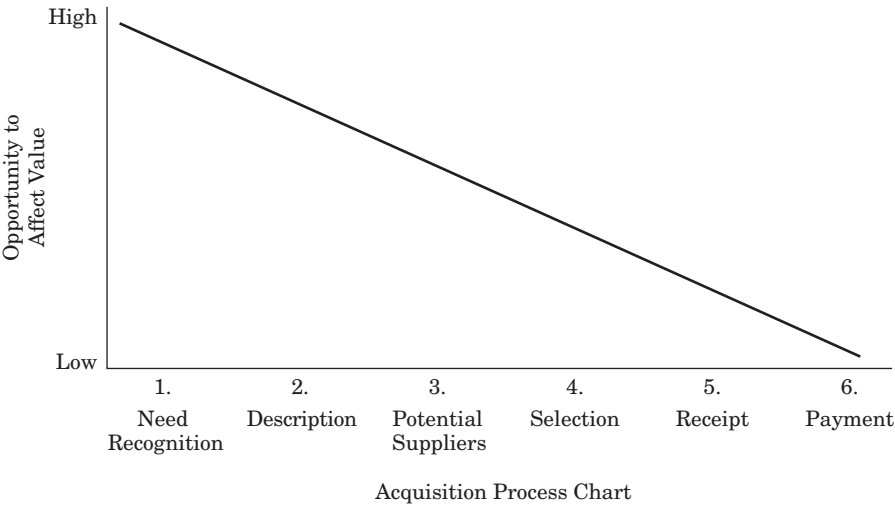
Advertising	Household/office moves	Research & development
Architectural	Information systems	Sales promotion
Auditing	Inspections	Security
Banking	Insurance	Signage
Cafeteria/catering	Interior decorating/space planning	Snow removal
Computer programming	Janitorial	Space/storage rental
Construction	Landscaping/lawn service	Telephone
Consulting	Legal service	Temporary help
Contract packaging	Mail services	Training
Courier services	Maintenance	Transport of goods
Customs brokerage	Medical	Trash removal/disposal
Data processing	Payroll	Travel (air, hotel, auto rental)
Demolition	Photography	Utilities (electric, gas, water)
Engineering design	Property management	Vending service
Environmental cleanup	Records management	Workers' compensation insurance
Hazardous waste disposal	Recruiting/outplacement	
Health benefit plans	Reproduction/copying	

7. Other

REPETITIVE OR NONREPETITIVE REQUIREMENTS?

COMMERCIAL EQUIVALENTS

FIGURE 6-1



EARLY SUPPLY AND SUPPLIER INVOLVEMENT

METHODS OF DESCRIPTION

Brand

“Or Equal”

Specification

Miscellaneous Methods of Description

¹ For agricultural raw materials, such as wheat and cotton, the grades are established by the U.S. Department of Agriculture. They include all food and feed products, the standards and grades for which have been established in accordance with the Federal Food and Drug Act, the Grain Standards Act, and other laws enacted by Congress. Establishing grades acceptable to the trade is essential to the successful operation of a commodity exchange.

Combination of Descriptive Methods

Sources of Specification Data

STANDARDIZATION AND SIMPLIFICATION

² American National Standards Institute, www.ansi.org, January 2001.

³ See www.nssn.org or www.ansi.org.

Conclusion

⁴ Michiel R. Leenders and P. Fraser Johnson, *Major Structural Changes in Supply Organizations* (Tempe AZ: Center for Advanced Purchasing Studies, 2000).

Questions for Review and Discussion

References

Case 6–1

Moren Corporation (A)

COMPANY BACKGROUND

TRANSMISSION LINE BACKGROUND

DESIGN ENGINEERING SELECTION

EXHIBIT 1

Description	Design 140 miles 345 kV transmission line for Addison-Smithfield-Mesa Valley				
Recommended vendor:	Pettigrew Associates, New York, N.Y.				
Location: Their premises	Using department: General engineering				
Buyer: O. Dunn	Total value: Established \$1,740,000 salaries + burden				
P.O. No.:	Date	Approval:			

Supplier	Estimated Labor-Hours	Basic Average Cost per Labor-Hour (w/o fringes)	Approximately Fringes (assumed same for all)	Overhead and Profit	Estimated \$/hour
Travers & Bolton	14,350	\$60.00	20%	65.5%	\$120.00
Crown Engineering	—	\$60.00	20	80.0	\$129.60
Pettigrew Associates	12,190	\$60.00	20	85.0	\$133.20

Case 6–2

Moren Corporation (B)

CONSTRUCTION SELECTION

EXHIBIT 1

Bidder	Comparison of Bids		
	Line Construction	Foundation Installation	Total
Line contractors			
(D)	\$47,103,840	\$53,079,648	\$100,183,488
(E)	38,117,804	44,617,110	82,734,914
(F)	41,390,640	37,778,478	79,169,118
(G) T.D. Rapier	37,485,360	37,993,872	75,479,232
(H) McTaggart Construction	43,433,700	27,672,804	71,106,504
(I)	36,192,072	No bid	
Consulting engineer's prior estimate	47,750,400	30,612,400	78,362,800
Foundation contractors:			
(J)		73,775,574	
(K)		38,966,364	
(L)		35,201,376	

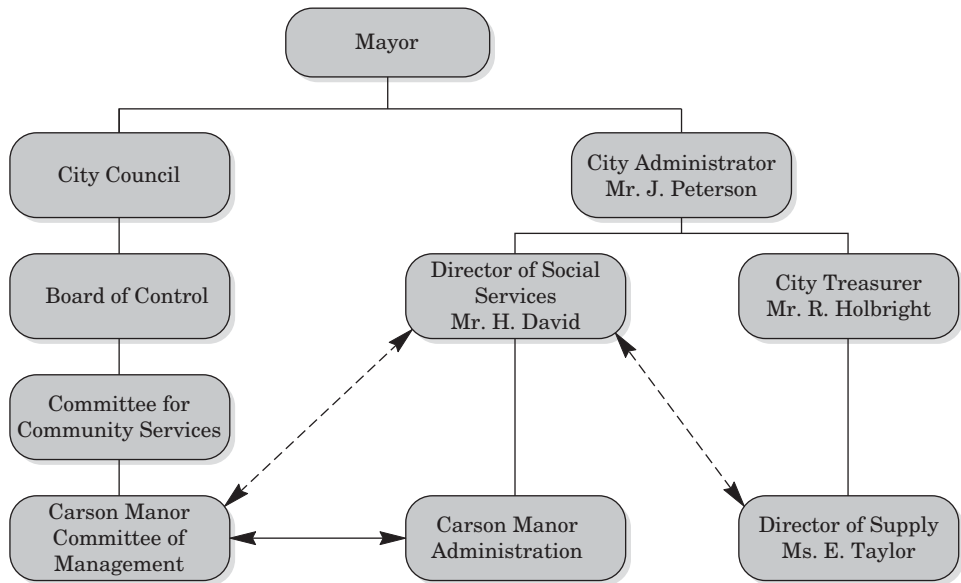
Case 6–3

Carson Manor

CARSON MANOR

PURCHASING AND SUPPLY
DIVISION (PSD)

EXHIBIT 1



THE CARSON MANOR STUDY

EXHIBIT 2

Excerpts from "The Municipal Home for the Aged, a Review and Alternatives." A report to the Carson Manor Committee of Management by J. Peterson, City Administrator, and H. Davis, Director of Social Services.

Page 29

Increasing levels of care required by Carson Manor residents have a major influence on costs, since care essentially is translated into staff to provide the necessary services. No objective classification of resident care requirements has ever been carried out at the Carson Manor although there is no question that current residents and even new applicants require much more nursing care than was formerly the case.

Page 33

An operational review could be carried out by an independent consulting firm of the State's Department of Community and Social Services and would provide a thorough analysis of options and possible areas for improvement at the Carson Manor.

Such an approach would provide a firm basis for the development of strategies for operational change but would not guarantee implementation of the necessary changes.

Page 34

The overall advantage of an operational review would be the ability to identify, in depth, problem areas at the Carson Manor for which change strategies could be developed by the city. Such strategies might include contract management of a specific service, for example. This type of analysis would provide solid ground for future planning. On the negative side of the balance are the costs of such a study and the necessity to subsequently develop and implement changes for the identified problem areas.

EXHIBIT 3

You are invited to submit a proposal for the purpose of conducting an administrative and operational review of the Carson Manor for elder citizens. The review is to include all aspects of operation at the home, including, but not restricted to, assessment of resident care requirements, review of administration, organizational design, and staffing. The main sections of the home include laundry and housekeeping, nursing and physiotherapy, dietary, special services, property, building maintenance, and administration. The review is to be conducted by examination and administration.

On the basis of the review, you are to develop comprehensive recommendations for introducing improved operating and cost efficiencies for the future operation of the home. All recommendations should offer alternatives, identify savings to be achieved and the related cost in order to implement the recommendations, projected impact on staff and administration, and strategies for implementation that are consistent with the city's role as operators of the home, as well as provisions for ensuring the maintenance of the current quality of care.

It is our intent that the cost of the review and subsequent implementation of the recommendations is to be recovered from savings achieved in the operations of the home.

Your Proposal Is to Include the Following Information

- a. Proposed methodology for undertaking the review.
- b. Names and qualifications of persons to be involved in the review and development of subsequent recommendations.
- c. An estimate of the time required to undertake the review and develop the recommendations.
- d. Documentation and references demonstrating your ability to successfully implement recommendations in similar circumstances.
- e. Potential cost savings that may be achieved as a result of the review.
- f. A copy of any contracts or agreements that are to be entered into as a result of being retained to conduct the review.

It is to be noted that your fee structure including upset limits is to be identified separately; however, included in the operating cost, calculations with the savings are to be shown as a net amount.

Proposal	Bid
Patientcare Ltd.	\$35,000
Clarke-Hamilton Ltd.	47,000
Standardcare Ltd.	77,000

EXHIBIT 4

	Patientcare	Clarke-Hamilton	Standardcare
1. Methodology	<p>Require liaison person from city administration to assist team.</p> <ol style="list-style-type: none"> 1. Collect data. 2. Review program. 3. Conduct interviews. 4. Determine and evaluate operational policies. 5. Analyze staff and cost. 6. Evaluate financial situation. 7. Prepare report of funds and recommendations. 8. Administration and project control. 9. Provide assistance with implementation if required. <ul style="list-style-type: none"> – Intend to utilize Department of Health general guidelines for work standards/patient classifications with judgment applied. – May not leave Home with a system to use in the future. 	<p>Suggest a steering committee be formed from city management and Carson Manor administration.</p> <ol style="list-style-type: none"> 1. Discuss terms of review with steering committee. 2. Examine pertinent documentation. 3. Review all sections. 4. Conduct interviews and physical tour. 5. Identify opportunities for improvement in all sections. 6. Develop detailed recommendations. 7. Review recommendations with Management. 8. Prepare and present final report. 9. Implement recommendations if required. <ul style="list-style-type: none"> – Work standard/patient classification to remain in place to be utilized by Home staff to maintain standards at minimal ongoing cost. 	<p>Maintain contact with Carson Manor management staff.</p> <ol style="list-style-type: none"> 1. Review operational statistics. 2. Analyze organizational and operating procedures. 3. Review and assess level of service in each section. 4. Identify problems and potential improvements. 5. Develop staffing schedules for comparison against existing and cost effectiveness. 6. Identify problems in respect to physical environment. 7. Provide draft report. 8. Assess availability of skills required to implement. 9. Prepare final report and recommendation. 10. Assist with implementation if required.
2. Anticipated Reduction and Implementation Costs	<p>"Patientcare is prepared to estimate the sum of all proposed operating deficiencies; if implemented, cost would far exceed the cost of the study and would be at least \$700,000."</p>	<p>"The benefits received by our client in terms of reduced operating costs, improved cost effectiveness, and operations improvement have invariably outweighed the costs for our services. The benefit to cost ratio from our assignments has varied from 3 to 1 to as much as 30 to 1 or higher."</p>	<p>"With respect to savings, it is difficult to make a definitive statement without having actually completed the study. However, based on previous experience, it is expected that savings should be in the order of 8 to 10 percent of total expenses, which would be approximately \$1.1 million in the case of Carson Manor."</p>

(Continued)

EXHIBIT 4

	Patientcare	Clarke-Hamilton	Standardcare
3. Experience	<ul style="list-style-type: none"> – Functional programming and operations at 11 institutions. – List of five (5) other consulting projects. – All appear large in scope. – Manage nursing homes and chronic hospitals. – Own or lease many other facilities. 	<ul style="list-style-type: none"> – Operational reviews in 11 institutions—mainly hospitals with three regional centers. – Extensive experience in specific areas again, mainly in hospitals. – Experience in implementing two different types of work standard/patient classification systems and MIS systems. – Extensive management consulting experience. 	<ul style="list-style-type: none"> – Appear to have extensive background in similar situations. – Extensive list of 15 facilities either completed or in process. – Manage Henford Lodge—150-bed restorative care program. – Operational review of Martin Nursing Home. – Owns or manages 2,400 nursing home bed and units in this state and Florida.
4. References	<p><i>Church Nursing Home, Dexter</i></p> <ul style="list-style-type: none"> – Could not locate in Dexter or surrounding area. <p><i>Littlefield Municipal Hospital, Marsland, Saskatchewan</i></p> <ul style="list-style-type: none"> – Spoke to administration who advised they consulted on construction of an addition to the hospital. Review only of size, layout, and facilities required. No operational or management review undertaken. <p><i>Judd Park Nursing Home Expansion, Detroit</i></p> <ul style="list-style-type: none"> – Could find no home operating under the name in Detroit or surrounding area. <p>*All other references were either impractical to contact or were areas currently owned.</p>	<p><i>Department of Community and Social Services</i></p> <ul style="list-style-type: none"> – Firm conducted operational review at Webster Regional Centre and they were satisfied with their performance. Although not totally implemented, it appeared that they would meet or surpass their estimated savings. <p><i>Webster Regional Centre Mgt.</i></p> <ul style="list-style-type: none"> – Talked to administrator who was satisfied with the manner in which they conducted their review. Very professional approach with minimum of disruptions. <p><i>Regional Municipality of Gast City. Greenfield Home for the Aged</i></p> <ul style="list-style-type: none"> – Firm performed salary review. 	<p><i>Ward Home for the Aged</i></p> <ul style="list-style-type: none"> – Firm completed operational review and currently involved in implementation. Particular emphasis on restorative care techniques in nursing dept. Certain operations being contracted out. Project uncompleted; however, appears they will meet their projected savings of \$280,000. <p>*Due to high cost of service, no further references were checked.</p>

Chapter Seven



Quality

Chapter Outline

Role of Quality in Supply Management
Defining Quality

Quality Standards and Awards Programs

The Cost of Quality

Conclusion
Questions for Review and Discussion
References
Cases

Quality Management Tools and
Techniques

Key Questions for the Supply Decision Maker

Should we

- Initiate a total quality management program?
- Initiate a six-sigma program?
- Certify suppliers?

How can we

- Improve customer satisfaction with quality?
- Reduce the costs of quality?
- Improve the measurement of quality of services?

ROLE OF QUALITY IN SUPPLY MANAGEMENT

FIGURE 7-1

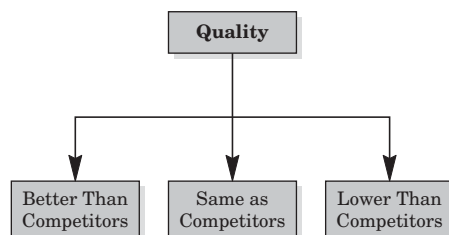
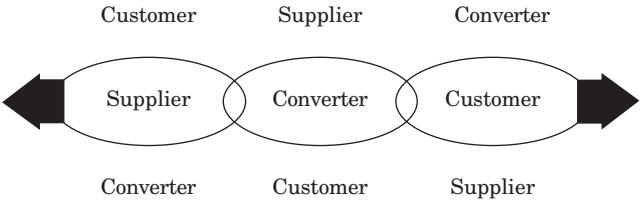


FIGURE 7–2



DEFINING QUALITY

Quality

Function

Suitability

Reliability

Quality Dimensions

“Best Buy”

Determining the “Best Buy”

THE COST OF QUALITY

FIGURE 7-3

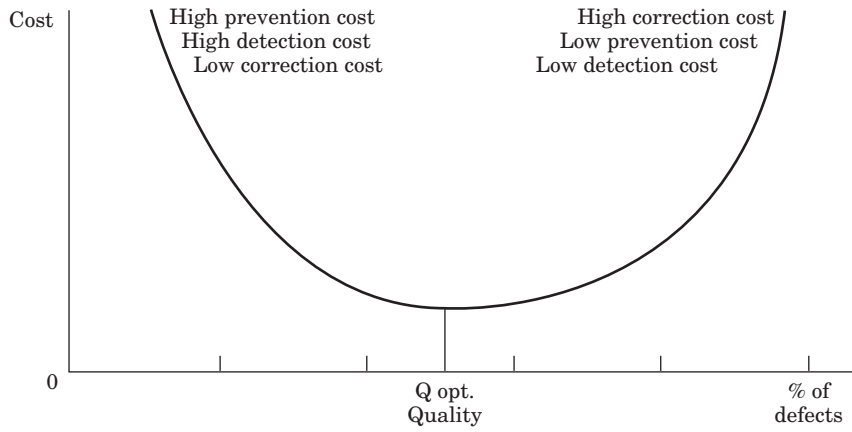
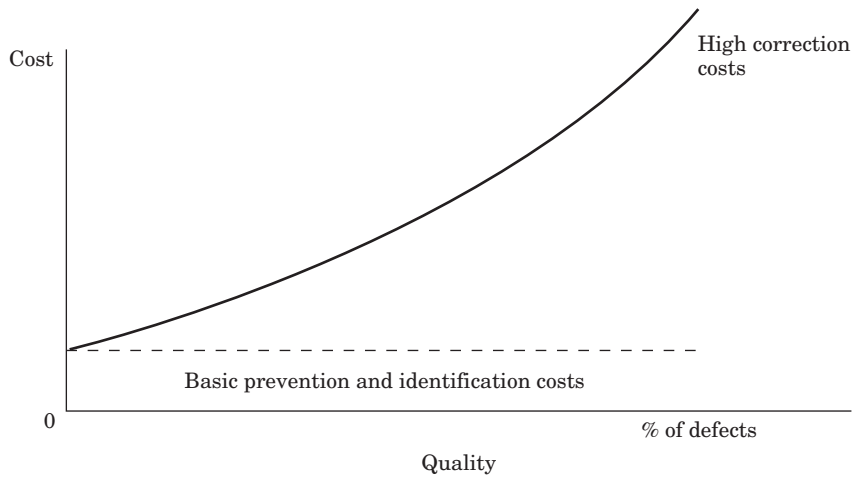


FIGURE 7-4



Prevention Costs

Appraisal Costs

Internal Failure Costs

External Failure Costs

Morale Costs

An Overall Quality–Cost Perspective

QUALITY MANAGEMENT TOOLS AND TECHNIQUES

Total Quality Management (TQM)

¹ Source: Major Elements of the SQP Process, http://www.qfdi.org/what_is_qfd/what_is_qfd.html.

²<http://www.asq.org/learn-about-quality/total-quality-management/overview/overview.html>

Continuous Improvement

Quality Function Deployment (QFD)

³ Dave Nelson, Rick Mayo, and Patricia Moody, *Powered by Honda* (New York: John Wiley & Sons, 1998).

⁴ Source: QFD Institute, http://www.qfdi.org/what_is_qfd/what_is_qfd.htm.

Six Sigma

σ

σ

Statistical Process Control (SPC)

⁵ Donald W. Benbow and T. M. Kubiak, *The Certified Six Sigma Blackbelt Handbook* (ASQ Quality Press, 2005, pp. 1–2).

$$= \frac{\bar{X}}{\sigma}$$

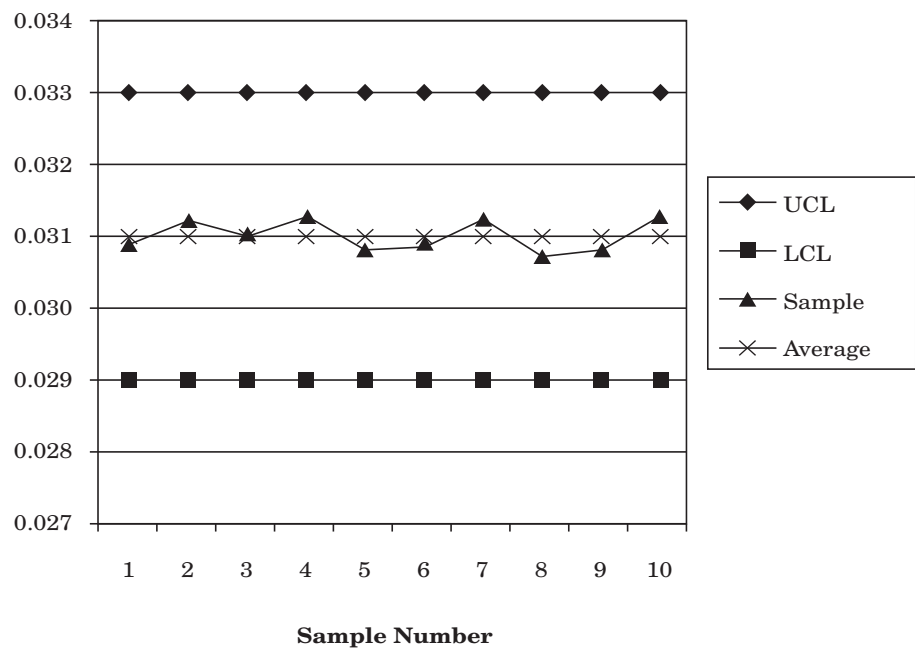
σ

$$= \frac{\bar{X}}{\times} =$$

$$\frac{\bar{X}}{\times} \quad \frac{\bar{X}}{\times}$$

$$\times \sigma$$

FIGURE 7-5 Control Chart



Sampling, Inspection, and Testing

The Quality Assurance and Quality Control Group

Assuring the Quality of Purchased Services

⁶ A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "A Conceptual Model of Service Quality and its Implications for the Future," *Journal of Marketing*, Fall 1985, pp. 41–50; and SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," *Journal of Retailing*, Spring 1988, pp. 12–40. Their two references likely were the first presentations of this approach.

Supplier Certification

QUALITY STANDARDS AND AWARDS PROGRAMS

ISO 9000 Quality Standards⁷

⁷ Source: Information about the International National Standards Organization can be found on their Web site at www.iso.ch

ISO 14000 Environmental Standards⁸

⁸ ISO 9000 Essentials, http://www.iso.org/iso/iso_9000_essentials

The Malcolm Baldrige National (U.S.) Quality Award

The Deming Prize

Conclusion

Questions for Review and Discussion

References

Case 7–1

The Power Line Poles

FIRST PROGRESS REPORT

BIDDING PROCEDURES—
PRESELECTION

EXHIBIT 1

	Bidders			
	M	N	O	P
Molson, Inc.	Norris Steel Co.	Structures Cdn., Ltd.	Henry Nelson Co.	Jordan Pole Co.
Bid (in \$000)	\$22,400	\$24,160	\$24,640	\$27,896
Extra for base	1,400	—	—	—
Escalation	252	Firm	Firm	500
Total	\$24,052	\$24,160	\$24,640	\$28,396

Quantity: 390 type 3A, 61 type 3B, 24 type 3C, 7 type 3D, 8 type 3E. Total 490

NELSON'S EXCEPTIONS

EXHIBIT 2

Exception 1

The exception to the method of shipping would relieve Nelson of the responsibility for poles during shipment from the southern factory to your storage yards.

Exception 2

In Nelson's bid, no material could be rejected on the basis of low Charpy values shown on the mill test reports or by sampling on anything but the thickest plate of the heat. Similarly, welding materials or techniques would not be subject to rejection because of low Charpy results, which is inconsistent with the intent of the specifications.

Exception 3

Excessive bolt projections represent a hazard to installation and maintenance personnel and would also increase construction costs.

Exceptions 4 and 5

Under Nelson Company's proposed Welding and Inspection Specifications, the purchaser would be prohibited from using radiography to determine weld quality, even for the purpose of clarifying the interpretations of ultrasonic indications or for use where ultrasonic inspection cannot be made. Only visual or magnetic particle inspection would be permissible for any welds except the pole shaft to base plate weld and the longitudinal welds at the lap joints. Some welds, such as the arm to butt plate welds, are virtually impossible to adequately inspect after they are completed and require inspection while the work is being performed; most inspection techniques except radiography are of questionable value following galvanizing; all inspection would have to be made in the fabricator's plant. Henry Nelson Company's proposed inspection procedures are less stringent than AWS-D1.0.69 in allowing 3/16" or smaller defects regardless of spacing.

Exception 6

Nelson's Conditions of Sale give the purchaser only five days from unloading to make claims for damaged or defective material. The warranty clause is unclear in that it can be interpreted to mean that Nelson has one year in which to make corrections but no provision for correcting defective material unless found in the five-day inspection period. It is our understanding that the intent is to provide a one-year warranty but the words do not so state.

Escalation Clause

Delays in delivery that are not caused by the purchaser should not be charged to the purchaser.

Case 7–2

Air Quality Systems, Inc.

PRODUCTS AND CUSTOMERS

THE COMPANY

THE QUALITY PROBLEM

FUTURE COURSE OF ACTION

Chapter Eight

Quantity and Inventory



Chapter Outline

Inventory Management

Quantity and Timing Issues

Forecasting

Determining Order Quantities and
Inventory Levels

Determining Quantity of Services

Planning Requirements and Resources

Conclusion

Questions for Review and Discussion

References

Cases

Functions and Forms of Inventories

Key Questions for the Supply Decision Maker

Should we

- Change the way we forecast?
- Use vendor-managed inventories?
- Purchase our A items differently?

How can we

- Reduce our investment in supply chain inventories?
- Improve our inventory management?
- Initiate a services consumption management program?

QUANTITY AND TIMING ISSUES

Quantity and Delivery

Time-Based Strategies

FORECASTING

Forecasting Techniques

Collaborative Planning, Forecasting, and Replenishment (CPFR)

DETERMINING ORDER QUANTITIES AND INVENTORY LEVELS

Fixed-Quantity Models

$$= \frac{Q}{P} + \frac{Q}{P} + \frac{Q}{P}$$
$$= \sqrt{\frac{2DP}{P}}$$

$$= \sqrt{\frac{\text{---}}{\text{---}}} = \sqrt{\frac{\times \times}{\times}} =$$

FIGURE 8-1

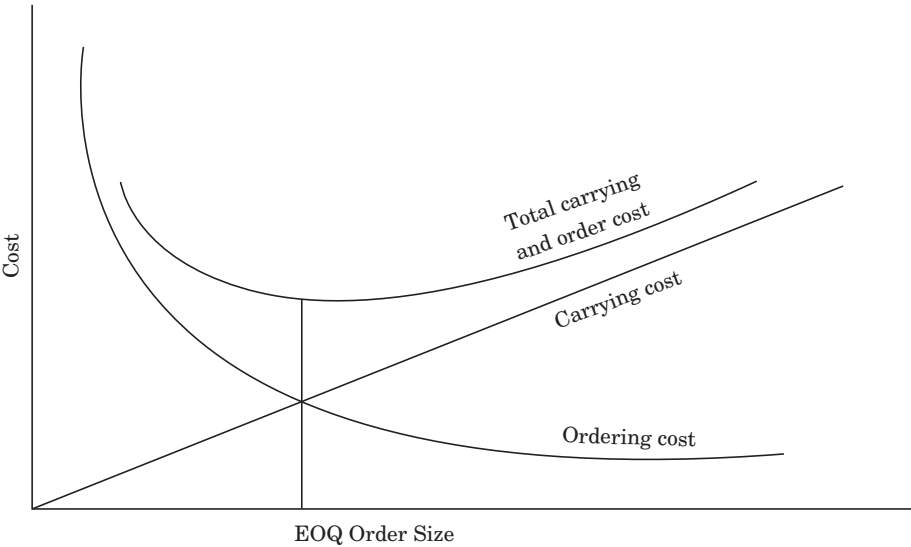
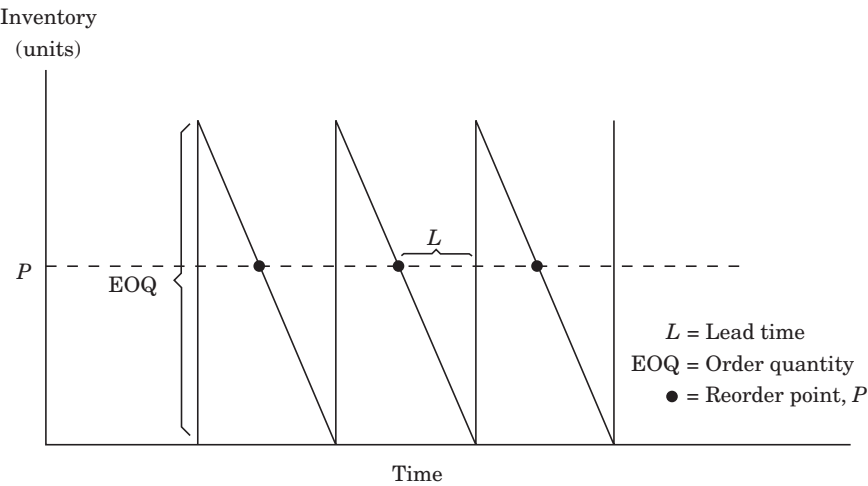


FIGURE 8-2



Buffer or Safety Stocks and Service Levels

FIGURE 8-3

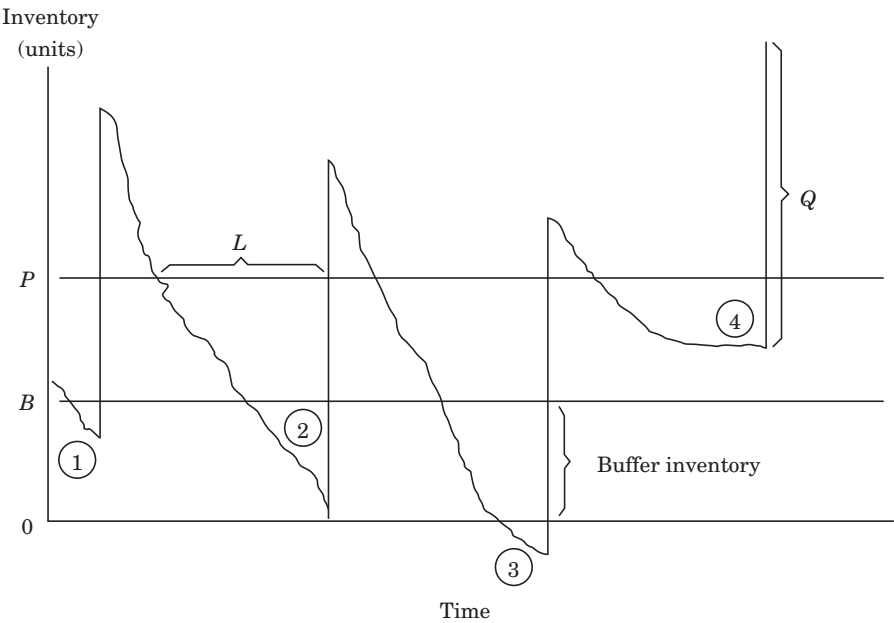
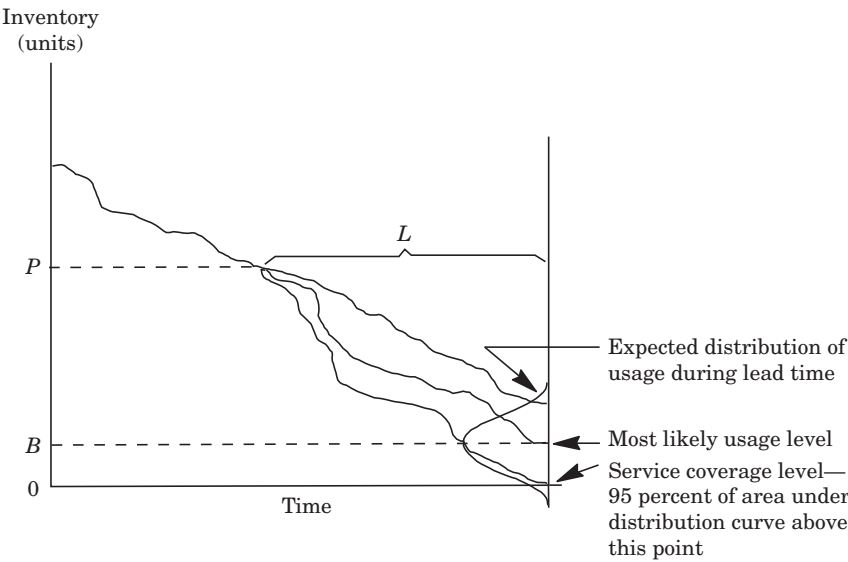


FIGURE 8-4



PLANNING REQUIREMENTS AND RESOURCES

Material Requirements Planning (MRP)

Capacity Requirements Planning (CRP)

Manufacturing Resource Planning (MRP II)

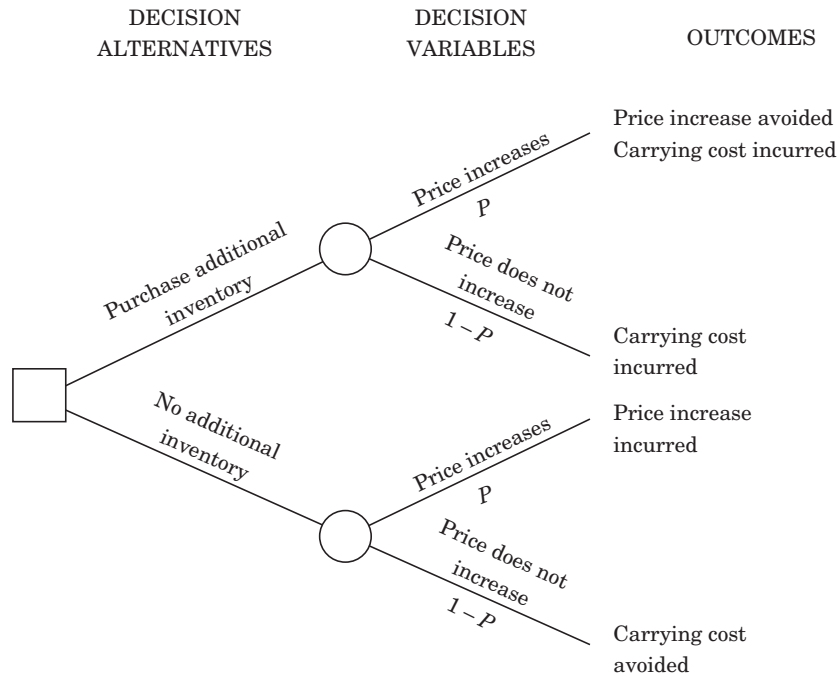
Enterprise Resource Planning (ERP) Systems

Supply Implications of MRP

FUNCTIONS AND FORMS OF INVENTORIES

The Functions of Inventory

FIGURE 8-5



The Forms of Inventory

Inventory Function and Form Framework

INVENTORY MANAGEMENT

Costs of Inventories

$$\begin{aligned} &= \\ &\quad \times \\ &= \\ &= \quad / \quad \times \quad \times \quad \times \\ &= \\ &= \\ &= \\ &= \end{aligned}$$

¹ Doug M. Lambert, James R. Stock, and Lisa M. Ellram, *Fundamentals of Logistics Management* (Burr Ridge, IL: McGraw-Hill/Irwin, 1998).

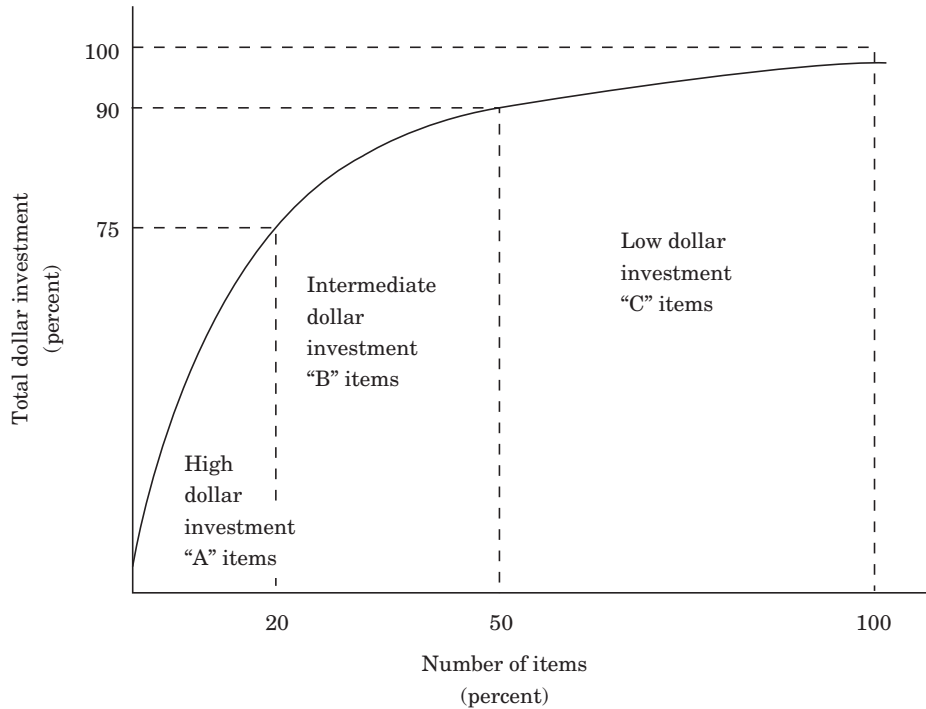
ABC Classification

Class	Percentage of Total Items in Inventory	Percentage of Total Dollars Tied up in Inventory
A	10	70–80
B	10–20	10–15
C	70–80	10–20

Number of Items	Percentage of Items	Annual Purchase Value	Percentage Annual Purchase Volume	Class
1,095	10.0%	\$21,600,000	71.1%	A
2,168	19.9	5,900,000	19.4	B
7,660	70.1	2,900,000	9.5	C
10,923	100%	\$30,400,000	100%	

× =

FIGURE 8-7



Vendor- or Supplier-Managed Inventory (VMI/SMI)

Lean Supply, Just-in-Time (JIT), and Kanban Systems

Managing Supply Chain Inventories

DETERMINING QUANTITY OF SERVICES

Aggregating Demand

Managing Consumption

Dimensions of Services and Quantity Decisions

Conclusion

**Questions
for
Review
and
Discussion**

References

Case 8–1

Sedgman Steel

COMPANY BACKGROUND

MATERIAL CONTROL

PREPARATION FOR THE MEETING

RAW MATERIAL INVENTORY

Case 8–2

Throsel-Teskey Drilling

THROSEL-TESKEY DRILLING

PURCHASING AND MATERIALS MANAGEMENT

CURRENT SITUATION

EXHIBIT 1

Month	Inventory Budget	Inventory Actual	Sales
Jan.	4,976,613	9,643,700	4,616,411
Feb.	5,007,262	10,165,100	5,293,460
March	5,098,347	11,834,900	6,254,323
April	5,090,657	12,040,600	6,212,472
May	5,186,393	12,584,000	6,050,000

EXHIBIT 2

Category	Phoenix	Albuquerque	Drill Sites	Total
Rods and casings	1,149,500	0	2,920,500	4,070,000
Drill bits and reaming shells	275,000	0	1,870,000	2,145,000
Wireline	550,000	0	825,000	1,375,000
Drill parts	1,210,000	671,000	297,000	2,178,000
Parts for equipment	275,000	385,000	165,000	825,000
Other	1,430,000	396,000	165,000	1,991,000
Total	\$4,889,500	\$1,452,000	\$6,242,500	\$12,584,000

Chapter Nine



Delivery

Chapter Outline

Logistics

Transportation

Transportation Modes and Carriers

Types of Carriers, Providers, and Service
Options

Selection of Mode and Supplier

Delivery Options for Services

Transportation and Logistics Strategy

Organization for Logistics

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

- Designate delivery mode and carrier, or let the supplier do it?
- Use FOB (free on board) origin or FOB destination terms, or some other designation?
- Outsource some or all of the logistics function to a third party?

How can we

- Develop an effective delivery strategy for goods and services?
- Identify value-added logistics services that will reduce our overall costs?
- Ensure that we attain the optimum mix of reliability, costs, and service from delivery service providers?

LOGISTICS

¹ CSCMP Supply Chain Management Definitions, <http://cscmp.org/aboutcscmp/definitions.asp>

Role of Logistics in the Economy

Role of Supply in Logistics

TRANSPORTATION

² R, Wilson, *20th Annual State of Logistics Report*, June 17, 2009.

Transportation Regulation and Deregulation

Supply's Involvement in Transportation

TRANSPORTATION MODES AND CARRIERS

³ P. F. Johnson and M. R. Leenders, *Supply's Organizational Roles and Responsibilities* (Tempe, AZ: CAPS Research, November 2004).

Road

Rail and Intermodal

Pipelines

Air

Water

Radio Frequency Waves

TYPES OF CARRIERS, PROVIDERS, AND SERVICE OPTIONS

Types of Carriers

Transportation Service Providers

Specialized Service Options

SELECTION OF MODE AND SUPPLIER

“Best Value” Delivery Decisions

Key Selection Criteria

FOB Terms and Incoterms

FOB Term	Payment of Freight Charges	Bears Freight Charges	Owns Goods in Transit	Files Claims (if any)	Explanation
FOB origin, or FOB freight collect	Buyer	Buyer	Buyer	Buyer	Title and control of goods passes to buyer when carrier signs for goods at point of origin
FOB origin, freight prepaid	Seller	Seller	Buyer	Buyer	Seller pays freight charges and adds to invoice
FOB origin, freight prepaid and charged back	Seller	Buyer	Buyer	Buyer	
FOB destination, freight collect	Buyer	Buyer	Seller	Seller	Title remains with seller until goods are delivered
FOB destination, freight prepaid	Seller	Seller	Seller	Seller	Seller pays freight charges and adds to invoice
FOB destination, freight prepaid and charged back	Seller	Buyer	Seller	Seller	
FOB destination, freight collect and allowed	Buyer	Seller	Seller	Seller	Buyer pays freight charges and deducts from seller's invoice

Rates and Pricing

Documentation in Freight Shipments

Expediting and Tracing Shipments

Freight Audits

DELIVERY OPTIONS FOR SERVICES

Buyer Location versus Supplier Location

On-premise versus Off-premise/Web-based IT Delivery

TRANSPORTATION AND LOGISTICS STRATEGY

⁴P. F. Johnson and M. R., *Supply's Organizational Roles and Responsibilities* (Tempe, AZ: CAPS Research, 2004).

ORGANIZATION FOR LOGISTICS

Conclusion

Questions for Review and Discussion

References

Case 9–1

Penner Medical Products

PENNER

STINSON DISTRIBUTION COMPANY

EVALUATING OPPORTUNITIES

Case 9–2

Andrew Morton

**THE BROMINE PENTAFLUORIDE
SHIPMENT**

CENTRAL ONTARIO UNIVERSITY

ARRIVAL OF THE SHIPMENT

Chapter Ten



Price

Chapter Outline

Relation of Cost to Price

How Suppliers Establish Price

Contract Options for Pricing

Government Influence on Pricing

Types of Purchases

Forward Buying and Commodities

The Use of Quotations and Competitive
Bidding

Conclusion
Questions for Review and Discussion
References
Cases

Discounts

Key Questions for the Supply Decision Maker

Should we

- Use competitive bidding as our principal means of price determination?
- Take advantage of a volume or cash discount offered by a supplier?
- Use forward buying?

How can we

- Spot and combat price fixing?
- Use the futures market to hedge the purchase of raw materials?
- Know when to allow price changes during a contract?

RELATION OF COST TO PRICE

Meaning of Cost

Direct materials	\$ 5,500
+ Direct labor	2,000
+ Factory overhead*	2,500
= Manufacturing cost	\$10,000
+ General, administrative, and selling cost	1,500
= Total cost	\$11,500
+ Profit	920
= Selling price	\$12,420

HOW SUPPLIERS ESTABLISH PRICE

The Cost Approach

The Market Approach

GOVERNMENT INFLUENCE ON PRICING

Legislation Affecting Price Determination

TYPES OF PURCHASES

Raw Materials/Sensitive Commodities

Special Items

Standard Production Items

Small-Value Items

Capital Goods

Services

Resale

THE USE OF QUOTATIONS AND COMPETITIVE BIDDING

Steps in the Bidding Process

Firm Bidding

Determination of Most Advantageous Bid

Collusive Bidding

Public-Sector Bidding

The Problem of Identical Prices

DISCOUNTS

Cash Discounts

$$\times =$$

Trade Discounts

Multiple Discounts

$$= \frac{C - \frac{C}{1 + \frac{d_1}{100}} - \frac{C}{1 + \frac{d_2}{100}} - \frac{C}{1 + \frac{d_3}{100}}}{1 + \frac{d_4}{100}}$$

Quantity Discounts

The Price-Discount Problem

$$\begin{aligned} &= \\ &= \\ &= \end{aligned}$$

Quantity Discounts and Source Selection

Cumulative or Volume Discounts

CONTRACT OPTIONS FOR PRICING

Four contract options for pricing are firm-fixed-price (FFP), cost-plus-fixed-fee (CPFF), cost-no-fee (CNF), and cost-plus-incentive-fee (CPIF).

Firm-Fixed-Price (FFP) Contract

The price set is not subject to change, under any circumstances. Buyers prefer this type of contract, but if the delivery date is some months or years away and if there is substantial chance of price escalation, a supplier may feel that there is far too much risk of loss to agree to sell under an FFP contract.

Cost-Plus-Fixed-Fee (CPFF) Contract

If it is unreasonable to expect a supplier to sell at a firm fixed price, the CPFF contract can be used. This occurs if the item is experimental and the specifications are not firm, or if costs in the future cannot be predicted. The buyer agrees to reimburse the supplier for all reasonable costs incurred (under a set of definite policies under which “reasonable” is determined) in doing the job or producing the required item, plus a specified dollar amount of profit. A maximum amount may be specified for the cost. This contract type is far superior to the old “cost-plus-percentage” type, which encouraged the supplier to run the costs up as high as possible to increase the base on which the profit is figured. While the supplier bears little risk under the CPFF, since costs will be reimbursed, the supplier’s profit percentage declines as the costs increase, giving some incentive to the supplier to control costs.

Cost-No-Fee (CNF) Contract

If the buyer can argue persuasively that there will be enough subsidiary benefits to the supplier from doing a particular job, then the supplier may be willing to do it provided only the costs are reimbursed. For example, the supplier may be willing to do the research and produce some new product if only the costs are returned, because doing the job may give the supplier some new technological or product knowledge, which then may be used to make large profits in some commercial market.

Cost-Plus-Incentive-Fee (CPIF) Contract

Both buyer and seller agree on a target cost figure, a fixed fee, and a formula under which any cost over- or underruns are shared. For example, assume the agreed-on target cost is \$100,000, the fixed fee is \$10,000, and the incentive-sharing formula is 50/50. If actual costs are \$120,000, the \$20,000 cost overrun would be shared equally between buyer and seller, based on the 50/50 sharing formula, and the seller’s profit would be reduced by \$10,000, or to zero in this example. On the other hand, if total costs are only \$90,000, then the seller’s share of the \$10,000 cost underrun would be \$5,000. Total profit then would be \$10,000 + \$5,000, or \$15,000. This motivates the supplier to be efficient because the benefits of greater efficiency (or the penalties of inefficiency) accrue in part, based on the sharing formula, to the supplier.

Provision for Price Changes

Many long-term contracts contain provisions for price changes. The contract normally provides for no price changes for a fixed period of time, after which a price change may become

Contract Cancellation

FORWARD BUYING AND COMMODITIES

Forward Buying versus Speculation

Organizing for Forward Buying

Control of Forward Buying

The Commodity Exchanges

Limitations of the Exchanges

Hedging

In the Cash Market	In the Futures Market
On September 1: Processor buys 5,000 bushels of wheat shipped from country elevator at \$4.00 per bushel (delivered Chicago)	Processor sells 5,000 bushels of December wheat futures at \$4.10 per bushel
On October 20: Processor sells Flour based on wheat equivalent of 5,000 bushels priced at \$3.85 per bushel (delivered atChicago)	Processor buys 5,000 bushels of December wheat futures at \$3.95 per bushel
Loss of 15¢ per bushel	Gain of 15¢ per bushel

=

Sources of Information Regarding Price Trends

Conclusion

Questions for Review and Discussion

References

Case 10–1

Cottrill Inc.

COTTRILL INC.

THE CURRENT SYSTEM

THE PURCHASING DEPARTMENT

THE PAGING SYSTEM

THE SAXTON PROPOSAL

EXHIBIT 1

	Tallant	Saxton
Monthly fee for airtime (per pager)	\$16.95	\$13.95
Monthly fee for phone number (per pager)	\$1.95	None
Monthly fee for equipment rental (per pager)	\$11.90	None
Yearly maintenance fee (per pager)	\$60.00	None
Service provided (no additional cost)	1-800 # help line	Direct sales representative

DECISION CRITERIA

CORAL DRUGS

CORAL PRIVATE-LABEL PRODUCTS

SWITCHING THE SOURCING AGREEMENT FOR CORAL DANDRUFF SHAMPOO

SOURCE SELECTION FOR PRIVATE- LABEL PRODUCTS

TWINNEY INCORPORATED

EXHIBIT 1 Coral Drugs Price and Size Comparison for Coral Dandruff Shampoo

	Size	Twinney	Size	Gorman & Irizawa
Regular	6 oz.	0.72	7 oz.	0.70
Fragrance	6 oz.	0.85	7 oz.	0.75
Trial	2 oz.	0.47	3 oz.	0.35

order had been causing problems. On several occasions, the Coral central warehouse had been stocked out of the products while waiting for a skid to arrive.

Shirley could not understand why a large company like Twinney would be so unwilling to accommodate Coral’s requests for improved shipping terms. Although there had never been any problems with the consistency or quality of the shampoo Coral received, Shirley Black felt that perhaps more beneficial terms could be offered by a manufacturer located closer to Coral’s warehouse. It seemed like a perfect opportunity because Twinney’s injection mold for the product had just broken down and the artwork was due for revision soon. The Twinney sourcing agreement was not in contract form and, therefore, Shirley Black believed Coral was not legally obligated to continue purchasing from Twinney.

GORMAN AND IRIZAWA LTD

Out of the many bids received, the most attractive terms were offered by a young local company, Gorman and Irizawa Ltd. (G & I). The bidder agreed to similar responsibilities as those in the existing Twinney agreement, as well as the same payment terms of 2 percent/10, net 30, FOB Coral’s warehouse. G & I also offered several additional advantages.

The first benefit was the cost of the product. As illustrated in Exhibit 1, G & I undercut the price Twinney was offering on all three products. This cost differential was made even more attractive by the fact that the prices quoted were for 7-ounce bottles of regular and fragranced product

and 3-ounce trial-sized bottles. The leading national brand was offered in similar sizes. The existing agreement with Twinney called for the production of smaller 6-ounce and 2-ounce bottles. Coral’s retail selling price was \$1.49 for the regular and fragranced shampoo and \$0.89 for a trial-size bottle. Shirley believed this was an excellent opportunity to pass on more value to the consumer.

The second advantage was G & I’s shipping flexibility. Under the terms of the proposed agreement, the company offered next-day delivery service with no minimum order quantity. G & I was able to offer such favorable terms because its manufacturing facility was located near Coral’s central warehouse.

Shirley believed this was an opportunity to support a small local company. If Coral agreed to source its dandruff shampoo from G & I, the account would be one of G & I’s largest. In a recent tour of the G & I plant, Shirley was impressed by the cleanliness of its manufacturing facilities; however, she could not help comparing the relatively small-scale operation to Twinney’s large shampoo factory.

SHIRLEY’S RECOMMENDATION

Shirley had discussed the dandruff shampoo sourcing issue with the vice president of purchasing in December and knew he was expecting a recommendation from her at the January 25th meeting at 3 p.m. She was well aware that Coral Drugs had a reputation for long-term relationships with its private-label product suppliers. She was, therefore, still unsure about which supplier to recommend for Coral Dandruff Shampoo.

Case 10–3
Price Forecasting Exercise*

You and ____ other members of the class have been asked to forecast the price of a commodity on _____. So that your organization may take the most advantageous procure-

ment action possible, your organization needs \$5 million worth of this commodity for delivery between _____ and _____. The amount—\$5 million worth—is based on the

* Your instructor will supply the missing information, dates, and so forth.

QUALIFICATIONS

Chapter Eleven

Cost Management



Chapter Outline

Strategic Cost Management

Cost Management Tools and Techniques

Negotiation

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

- Use target pricing?
- Negotiate with our suppliers or accept their existing terms and conditions?
- Estimate total cost of ownership for all our purchases?

How can we

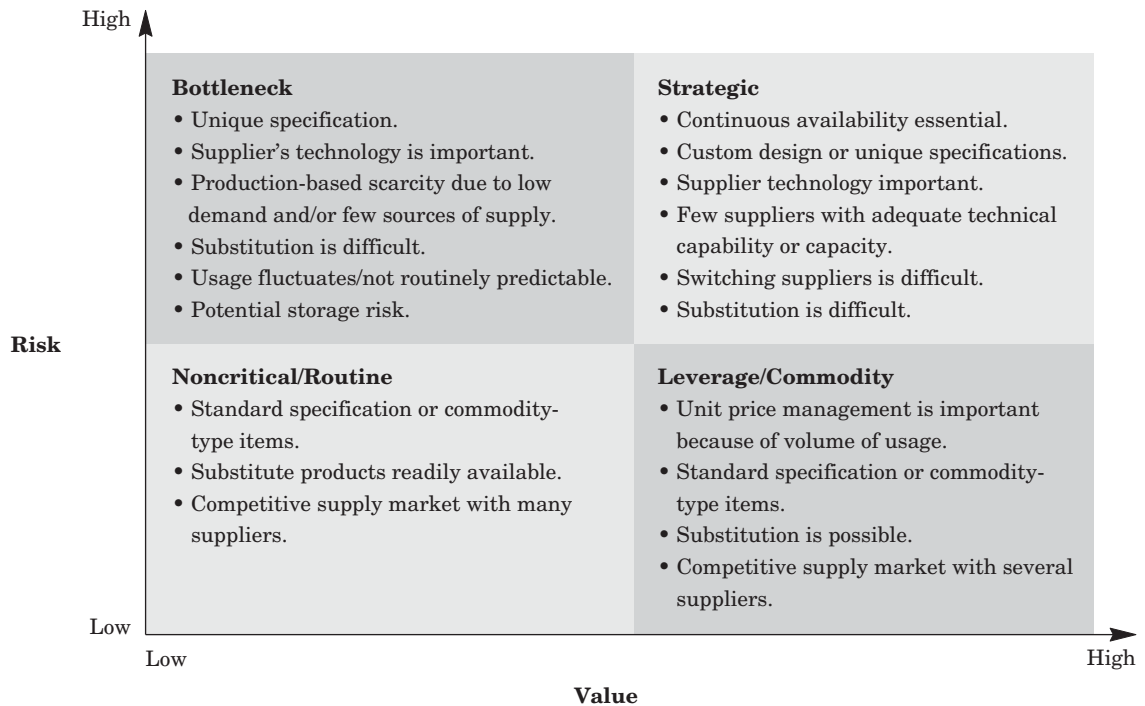
- Understand what it costs our suppliers to manufacture their products or deliver their services?
- Make a cost analysis on all our large-dollar purchase items?
- Achieve our objectives in a negotiation with an important supplier?

STRATEGIC COST MANAGEMENT

Sources of Competitive Advantage

Frameworks for Cost Management

FIGURE 11-1



COST MANAGEMENT TOOLS AND TECHNIQUES

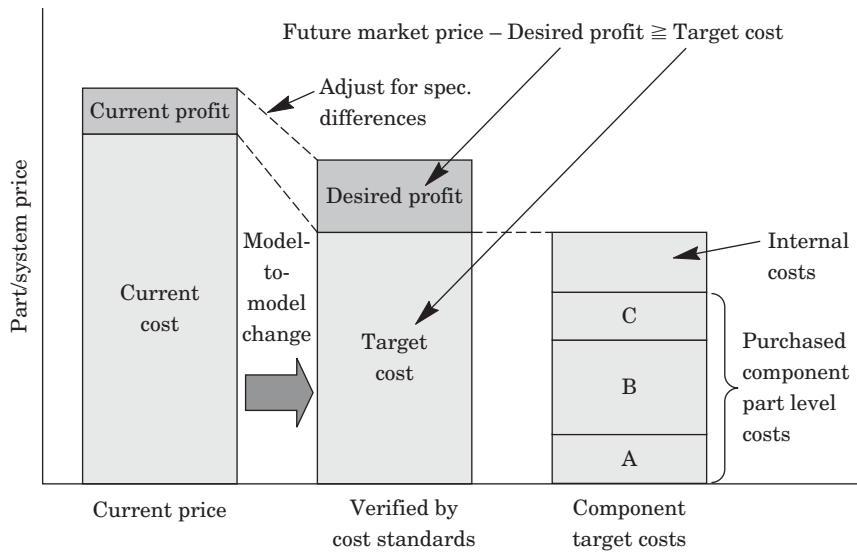
Total Cost of Ownership

Lisa Ellram, "A Taxonomy of Total Cost of Ownership Models," *Journal of Business Logistics*, vol. 15, no. 1, 1994, pp. 171–191.

Lisa Ellram, "Total Cost of Ownership: Elements and Implementation," *International Journal of Purchasing and Materials Management*, Fall 1993.

Target Pricing

FIGURE 11-2



The Learning Curve or Manufacturing Progress Function

Value Engineering and Value Analysis

= _____

Activity-Based Costing

The section is drawn largely from John C. Lere and Jayant V. Saraph, "Activity-Based Costing for Purchasing Managers' Cost and Pricing Determinations," *International Journal of Purchasing and Materials Management*, Fall 1995, pp. 25–21.

NEGOTIATION

Negotiation Strategy and Practice

Framework for Planning and Preparing for Negotiation

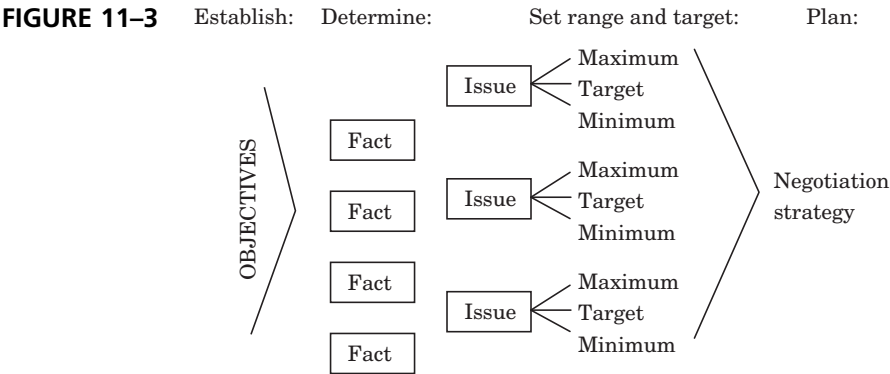
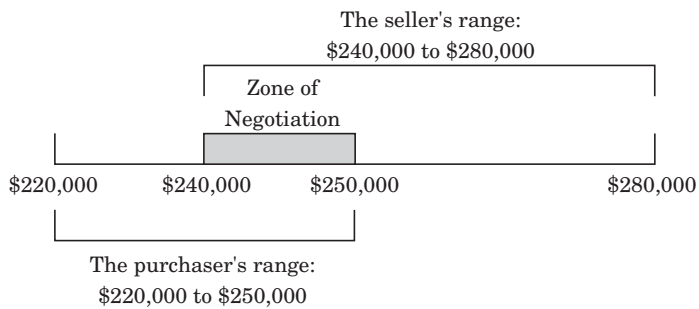
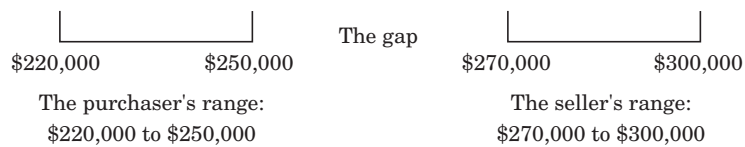


FIGURE 11-4 1. The seller and purchaser overlap.

2. The seller and purchaser do not overlap.



Conclusion

Questions for Review and Discussion

References

Case 11–1

Deere Cost Management

THE GATHERER CHAIN

FINANCIAL ANALYSIS

EXHIBIT 1

	Two Years Ago	Last year	Current Year Budget
Aftermarket price	\$ 40.00	\$ 36.25	\$ 30.00
Purchase cost	\$ 21.25	\$ 22.61	\$ 24.12
Cost–price ratio	53%	62%	80%
Unit sales	475,000	410,000	350,000

SUPPLIER NEGOTIATION

Case 11–2

McMichael Inc.

Resin	16¢
Labor	3¢
Overhead*	8¢
	<hr/>
	27¢

*

Case 11–3

City of Granston*

CITY OF GRANSTON

AGGREGATE PURCHASING

THE AGGREGATE INDUSTRY

EXHIBIT 1

Description	Original Price	Current Price	New Price Request	City Requirement (metric tons)
Screening*	9.80	9.59	9.78	3,000
Crushedroc k*	8.80	8.57	8.74	6,500
Drainroc k**	12.20	11.88	12.11	3,000
Tailings**	8.00	7.80	7.95	75,000
Mulch**	7.10	6.98	7.12	250,000

THE DECISION**TED BARTON****EXHIBIT 2**

Year	3 Years Ago	2 Years Ago	1 Year Ago	Current Year		
				Q-1	Q-2	Q-3
Cost of supplies (basket of goods)	100.00	.9199	.9446	.9477	.9410	.9614

EXHIBIT 3

Key Indicators	3 Years Ago	2 Years Ago	1 Year Ago	Current Year		
				Q-1	Q-2	Q-3
Business prime rate (%)	7.000	6.875	4.250	4.750	5.00	5.00
CPI	111.4	114.7	116.2	121.9	122.0	122.2
Fats & oils	161.82	165.38	194.44	218.99	221.02	236.98
Raw industrials	258.06	235.55	231.72	258.69	260.01	269.91
Textiles	236.39	230.50	221.41	234.29	241.01	239.83
Diesel fuel	50.36	52.56	54.34	65.04	56.41	58.69
Coarse road salt	57.28	52.91	52.91	52.91	52.91	52.91
Natural gas	4.50	6.08	3.82	6.22	6.00	5.96
Copper (US\$ per ton)	1788.00	1578.00	1559.00	1663.00	1641.00	1753.00
Metals subindex	236.06	193.55	178.92	201.50	207.09	218.15

Chapter Twelve



Supplier Selection

Chapter Outline

The Supplier Selection Decision

Identifying Potential Sources

Additional Supplier Selection Decisions

Supplier Development/Reverse
Marketing

Evaluating Potential Sources

Ranking Potential Suppliers

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

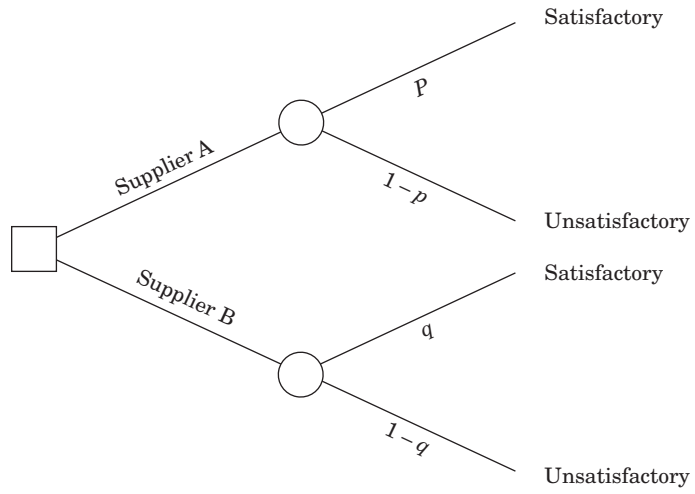
Should we

- Use cross-functional sourcing teams to select suppliers?
- Use one or more suppliers?
- Switch from informal to formal supplier evaluation?

How can we

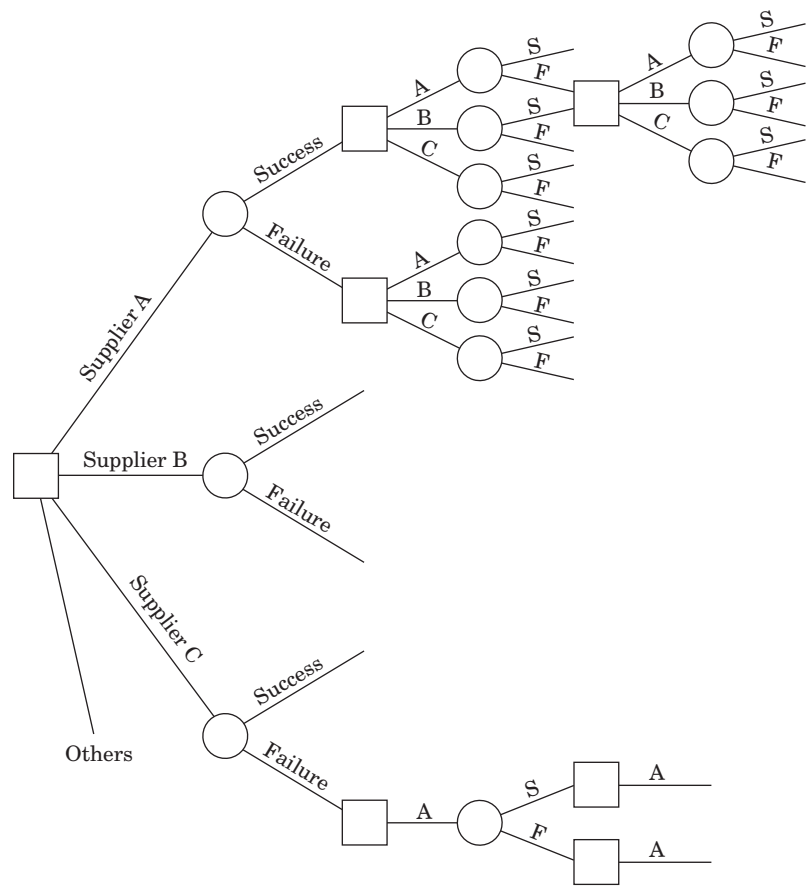
- Reach agreement with internal business partners on evaluation criteria and weighting?
- Balance financial and nonfinancial factors when selecting suppliers?
- Be sure that we choose the best supplier available?

THE SUPPLIER SELECTION DECISION

FIGURE 12-1

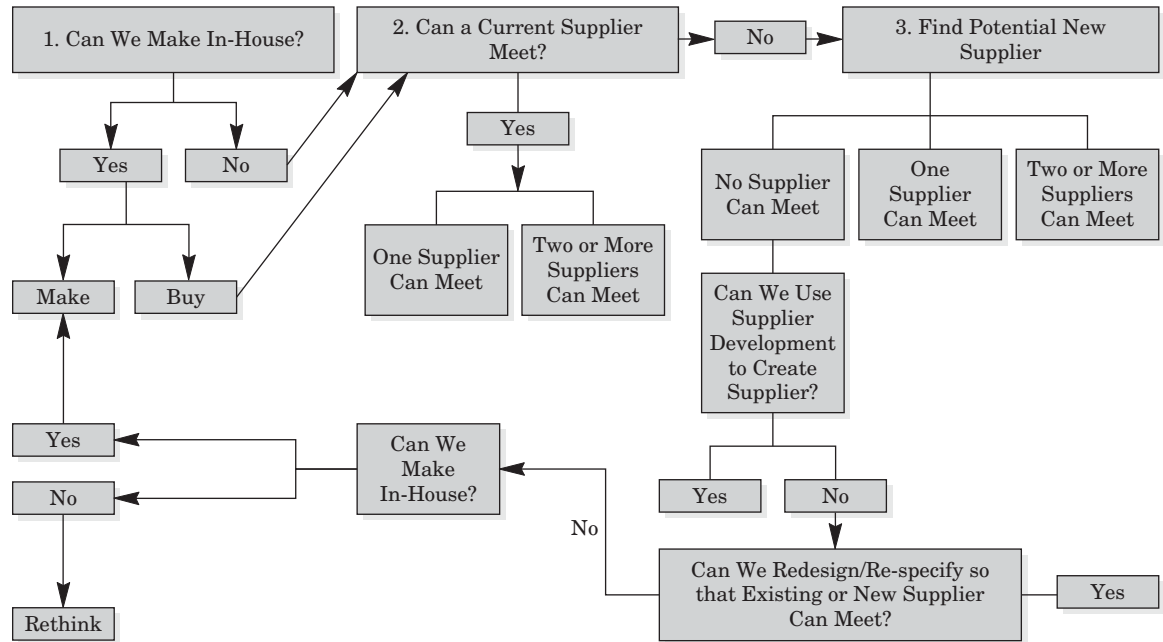
Decision Trees

FIGURE 12-2



IDENTIFYING POTENTIAL SOURCES

FIGURE 12-3



Information Sources

Standard Information Requests

ADDITIONAL SUPPLIER SELECTION DECISIONS

Single versus Multiple Sourcing

TABLE 12–1

1. Prior commitments, a successful past relationship, or an ongoing long-term contract with a preferred supplier might prevent even the possibility of splitting the order.
2. The supplier may be the exclusive owner of certain essential patents or processes and, therefore, be the only possible source.
3. A given supplier may be so outstanding in the quality of product or in the service or value provided as to preclude serious consideration of buying elsewhere.
4. The order may be so small as to make it not worthwhile to divide it.
5. Concentrating purchases may make possible certain discounts or lower freight rates that could not be had otherwise.
6. The supplier will be more cooperative, more interested, and more willing to please if it has all the buyer's business.
7. When the purchase of an item involves a die, tool, mold charge, or costly setup, the expense of duplicating this equipment or setup is likely to be substantial.
8. Deliveries may be more easily scheduled.
9. The use of just-in-time production, stockless buying, or systems contracting.
10. Effective supplier relations require considerable resources and time. Therefore, the fewer suppliers the better.
11. Single sourcing is a prerequisite to partnering.

TABLE 12–2

1. It has been traditional practice to use more than one source, especially on the important requirement.
2. Knowing that competitors are getting some of the business may keep the supplier more alert to the need for giving good value.
3. Assurance of supply is increased. Should fire, strikes, breakdowns, or accidents occur to any one supplier, deliveries can still be obtained from the others for at least part of the needs.
4. The supply organization has developed a unique capability of dealing with multiple sources.
5. To avoid supplier dependence on the purchaser.
6. To obtain greater flexibility, because the unused capacity of all the suppliers may be available.
7. Even in situations involving close and cooperative supplier relationships, it is possible to make backup arrangements so that supplier X specializes in product Q and backs up supplier Y, who specializes in product R and backs up supplier X.
8. Strategic reasons, such as military preparedness and supply security, may require multiple sourcing.
9. Government regulations may insist that multiple suppliers, or small or minority sources, be used. If there is high risk associated with a small or single-minority source, multiple sourcing may be necessary.
10. Sufficient capacity may not be available to accommodate the purchaser's current or future needs.
11. Potential new or future suppliers may have to be tested with trial orders, while other sources receive the bulk of the current business.
12. Volatility in the supply market makes single sourcing unacceptably risky.

Manufacturer versus Distributor

Geographical Location of Sources

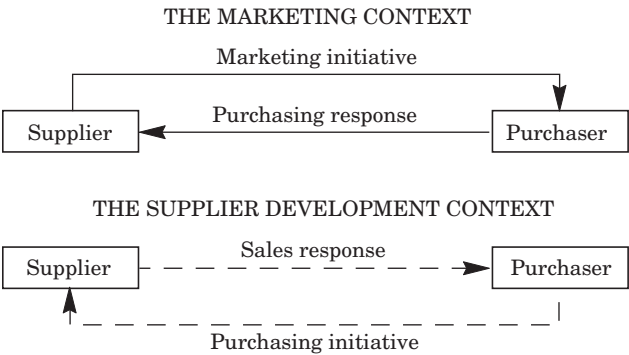
FIGURE12– 4

Purchaser Size	Supplier Size
Small	Small
	Medium
	Large
Medium	Small
	Medium
	Large
Large	Small
	Medium
	Large

Supplier Size

SUPPLIER DEVELOPMENT/REVERSE MARKETING

FIGURE 12-5



EVALUATING POTENTIAL SOURCES

Level 1—Strategic

FIGURE 12–6

MARKET RISK	High	Bottleneck <ul style="list-style-type: none"> • Unique specification • Supplier's technology is important • Production-based scarcity due to low demand and/or few sources of supply • Substitution is difficult • Usage fluctuates and is not routinely predictable • Potential storage risk 	Strategic <ul style="list-style-type: none"> • Continuous availability is essential to the operation • Custom design or unique specifications • Supplier technology is important • Few suppliers with adequate technical capability or capacity • Changing source of supply is difficult • Substitution is difficult
	Low	Noncritical <ul style="list-style-type: none"> • Standard specification or "commodity" type item • Substitute products readily available • Competitive supply market with many suppliers 	Leverage <ul style="list-style-type: none"> • Price per unit is key because of volume • Substitution is possible • Competitive supply market with several sources
		Low	High
		VALUE	

Level 2—Traditional

Level 3—Current Additional

¹ Craig R. Carter and Marianne M. Jennings, *Purchasing's Contribution to the Socially Responsible Management of the Supply Chain* (Tempe, AZ: Center for Advanced Purchasing Studies, 2000), p. 7.

RANKING POTENTIAL SUPPLIERS

Conclusion

Questions for Review and Discussion

1. Why might a supply manager prefer to place additional business with an existing supplier? Why not?
2. What challenges do you see in assessing a supplier's environmental performance?
3. Why is the trend toward single sourcing? What are the disadvantages to this trend?
4. What are standard supply risks?
5. Why might it be preferable to buy from a distributor or wholesaler rather than directly from the manufacturer?
6. What are the advantages of purchasing from small local sources?
7. When might it be appropriate to conduct an informal, rather than a formal, supplier evaluation?
8. What are the similarities and differences between evaluating new and existing sources of supply?
9. Why is supply focusing more attention on a supplier's management as part of the evaluation process? How might this evaluation be conducted?
10. How might social or political issues impact a supplier selection decision?

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Case 12–1

Loren Inc.

COMPANY BACKGROUND

PURCHASING

EXHIBIT 1

The basic objectives for the Loren purchasing department are:

- A) *Assurance of Material Availability.* The major objective of purchasing must be the guarantee of sufficient supply to support production requirements.
- B) *Best Value.* Loren recognizes that value is a combination of price, quality, service, . . . and that maximum profitability can only be obtained through the purchase of optimal value on both short- and long-term basis.
- C) *An Ethical Reputation.* All dealings must respect all aspects of the law and all business relationships must be founded on a sound ethical approach.
- D) *Gathering of Information.* Purchasing involves a constant search for new ideas and improved products in the changing markets. A responsibility also exists to keep the company informed on industry trends including information on material supply and costs.

EXHIBIT 2

The purpose of the information contained herein is to give our suppliers a better understanding of certain policies and practices of Loren. We believe it is important that we understand our suppliers and, in turn, that they understand us. As you know Loren believes in free enterprise and in competition as the mainspring of a free enterprise system. Many of our basic policies stem from a fundamental belief that competition is the fairest means for Loren to purchase the best total value. However, the policies and practices we want to outline here for you relate to Loren business ethics and the ethical treatment of suppliers. In brief, fair dealing means these things to us:

1. We live up to our word. We do not mislead. We believe that misrepresentations, phantom prices, chiseling, etc., have no place in our business.
2. We try to be fair in our demands on a supplier and to avoid unreasonable demands for services; we expect to pay our way when special service is required.
3. We try to settle all claims and disputes on a fair and factual basis.
4. We avoid any form of "favored treatment," such as telling a supplier what to quote to get our business or obtaining business by "meeting" an existing price. In addition, all suppliers that could qualify for our business are given identical information and an equal opportunity to quote on our requirements.
5. We do not betray the confidence of a supplier. We believe that it is unethical to talk about a supplier with competitors. New ideas, methods, products, and prices are kept confidential unless disclosure is permitted by the supplier.
6. We believe in giving prompt and courteous attention to all supplier representatives.
7. We are willing to listen to supplier complaints at any level of the buying organization without prejudice concerning the future placement of business.

We also do not believe in reciprocity or in "tie-ins" which require the purchase of one commodity with another.

We believe that supplier relationships should be conducted so that personal obligations, either actual or implied, do not exist. Consequently, we do not accept gifts and we discourage entertainment from suppliers. Similarly, we try to avoid all situations which involve a conflict of personal interest.

HEXONIC ACID—RECENT MARKET HISTORY

EXHIBIT 3

Period	Total Volume Purchased	Canchem Percent Delivered/Cost	Alfo Percent Delivered/Cost
Three years ago	1,800 tons	50% \$828 / ton	50% \$828 / ton
Two years ago	2,200 tons	50% \$1,176 / ton	50% \$1,084 / ton
Last year	2,750 tons	60% \$1,384 / ton	40% \$1,296 / ton

MEETING WITH ALFO

PHONE CALL BY MICHIGAN
CHEMICAL

MEETINGS WITH HEXONIC
ACID SUPPLIERS

MEETING WITH CANCHEM

MEETING WITH ALFO

QUOTATION BY CARTER CHEMICAL

**MEETING WITH AMERICAN
CHEMICAL INC. (AMCHEM)**

VISIT OF CANCHEM

EXHIBIT 4

	Price		Terms
	Spot	Contract	
Alfo	\$1,296.00 / ton	\$1,296.00 / ton	Min. period: 1 year Min. volume: — Price protection: 90 days Notice: 15 days
Canchem	Bid 1 \$1,384.00 / ton	\$1,384.00 / ton	Min. period: 3 years (Bid 2) Min. volume: 1,000 tons Price protection: 30 days Notice: 30 days
	Bid 2 \$1,192.00 / ton	\$1,192.00 / ton	
American Chemicals		Min. 1,050 tons Min.2,250 tons	Min. period: 1 year Min. volume: Stated Price protection: Firm Notice: —
	\$1,607.72 / ton	\$1,204.00 / ton \$1,192.00 / ton	
Carter Chemicals		Min. 750 tons	Min. period: 1 year Min. volume: 750 tons Price protection: 90 days Notice: 15 days
(Michigan Chemical Material)	\$1,268.00 / ton	\$1,268.00 / ton	

QUOTE SUMMARY

TROJAN TECHNOLOGIES

LOW-COST REGION SOURCING PROJECT

DELIVERY PROBLEMS

IDENTIFYING OPTIONS

Case 12–3

Kettering Industries Inc.

KETTERING INDUSTRIES INC.

VINYL WINDOW PRODUCTION

PURCHASING OF GLASS

36" x 48" 48" x 96"

EXHIBIT 1

Supplier	3 mm Clear	4 mm Clear	3 mm Low Energy	4 mm Low Energy	Total
Ross Industries					
666 blks	541,090				\$541,090
Clear View Distributors					
94 blks	77,812				
8 blks		5,618			
110 blks			234,882		
12 blks				16,631	\$334,943
Travers Glass Ltd.					
104 blks	85,902				
42 blks		29,494			
36 blks			76,822	0	\$192,218
West Bend Glass					
36 blks	0	0	76,046		
4 blks				7,073	\$83,119
Blks Total	\$704,804	\$35,112	\$387,750	\$23,704	\$1,151,370
Clear Glass Total		872 blocks		\$739,916	
Low Energy Glass Total		198 blocks		441,454	
TOTAL		1,070		\$1,151,370	

SUPPLIER ALTERNATIVES

SELECTING SUPPLIERS

EXHIBIT 2

	Clear		Low Energy	
	3 mm (822 blocks 2400 ft²/bl)	4 mm (50 blocks 1600 ft²/bl)	3 mm (234 blocks 2400 ft²/bl)	4 mm (124 blocks 1600 ft²/bl)
Ross Ind.	.3278 12 min .33 1 min [.3384] ¹	.4371 .44		
Clear View	.33 8 min [.3449]	.44 [.3489]	.8920 [.8900]	1.142 [1.135]
Travers	.3172 12 min [.3445]	.4389 [.4389]	.8830	1.160
Jackson	.33 6 min	.44		1.092
West Bend ²			0.8794	



Chapter Thirteen

Supplier Evaluation and Supplier Relations



Chapter Outline

Measuring Supplier Performance

Evaluation Methods

Supplier Ranking

Supplier Relations

Partnerships

Strategic Alliances

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

- Change the way we evaluate supplier performance?
- Have annual top executive meetings with our key suppliers?
- Have more or fewer partnerships?

How can we

- Reduce the number of unacceptable suppliers?
- Improve our relations with suppliers? In supplier relations?
- Find out how satisfied our suppliers are with us as a customer?

MEASURING SUPPLIER PERFORMANCE

Key Supplier Performance Indicators

EVALUATION METHODS

Informal and Semiformal Evaluation and Rating

Executive Roundtable Discussions

Formal Supplier Evaluation and Rating

Excellent:	a. Meets delivery dates without expediting. b. Requested delivery dates are usually accepted.
Good:	c. Usually meets shipping dates without substantial follow-up. d. Often is able to accept requested delivery dates.
Fair:	e. Shipments sometimes late, substantial amount of follow-up required.
Poor:	f. Shipments usually late, delivery promises seldom met, constant expediting required.

15 points	> 98 % on-time
10 points	95–97.9% on-time
5 points	90–94.9% on-time
0 points	< 90% on-time

Weighted Point Evaluation Systems

SUPPLIER RANKING

Unacceptable Suppliers

Acceptable Suppliers

Preferred Suppliers

Exceptional Suppliers

SUPPLIER RELATIONS

FIGURE 13–1

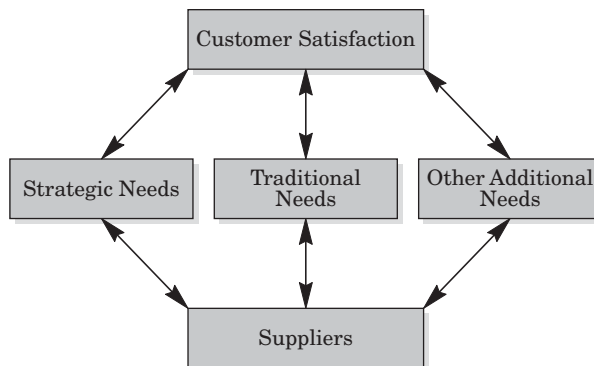
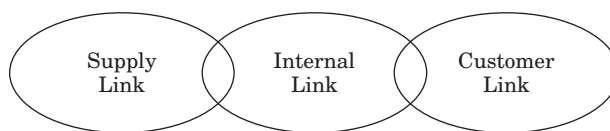


FIGURE 13–2

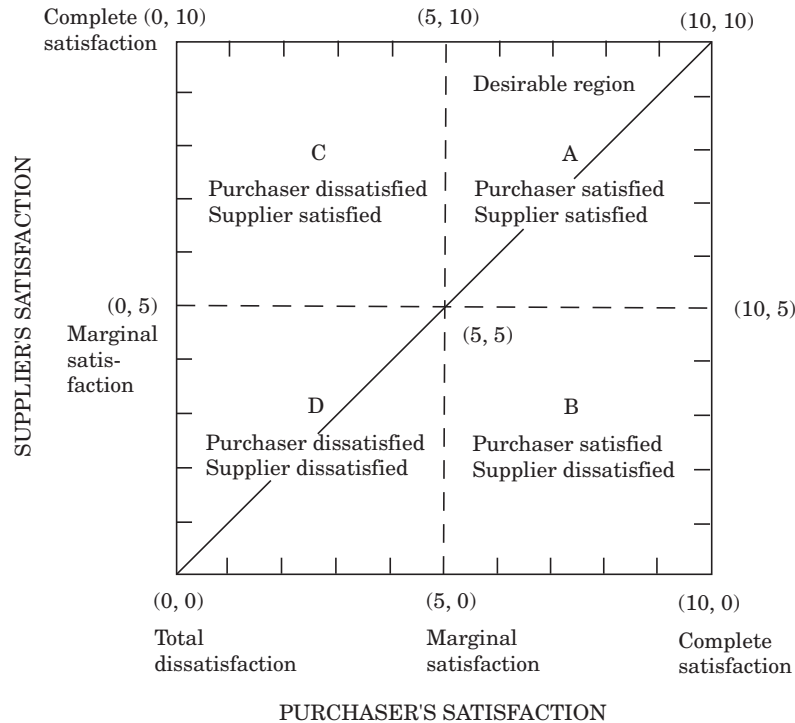


Supplier Relations Context

Supplier Goodwill

The Purchaser–Supplier Satisfaction Matrix

FIGURE 13-3



Supplier Relationship Management

PARTNERSHIPS

SEMATECH's Partnering Perspective

Becky S. Moore, "Increased Service," *Purchasing Today*, February 1999, p. 68.

FIGURE 13–4

Traditional	Partnership
Lowest price	Total cost of ownership
Specification-driven	End customer-driven
Short term, reacts to market	Long term
Trouble avoidance	Opportunity maximization
Purchasing’s responsibility	Cross-functional teams and top management involvement
Tactical	Strategic
Little sharing of information on both sides	Both supplier and buyer share short- and long-term plans
	Share risk and opportunity
	Standardization
	Joint ventures
	Share data

Early Supplier/Supply Involvement (ESI)

Partner Selection

The Longer Time Perspective

FIGURE 13–5

- Formal communication processes
- Commitment to our suppliers' success
- Mutual profitability
- Stable relationships, not dependent on a few personalities
- Consistent and specific feedback on supplier performance
- Realistic expectations
- Employee accountability for ethical business conduct
- Meaningful information sharing
- Guidance to supplier in defining improvement efforts
- Nonadversarial negotiations and decisions based on total cost of ownership

Co-location/In-plants

Concerns about Partnerships

STRATEGIC ALLIANCES

Conclusion

Questions for Review and Discussion

References

Case 13–1

APC Europe

APC

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QUALITY CONTROL

EXHIBIT 1

Quality		
Item	Grade	Criteria
Rejected and Nonconforming	4	No rejected or nonconforming shipments.
	3	Up to 5% of shipments nonconforming.
	2	>5–10% of shipments nonconforming.
	1	>10–20% of shipments nonconforming.
	0	>20% of shipments nonconforming.
Process Capability, Data/Samples	4	Less than 1% outside control limits and samples/data received for all shipments.
	3	Up to 5% outside limits and 90–99% of shipments have samples/data.
	2	5–10% outside limits and 80–90% of shipments have samples/data.
	1	10–20% outside limits and 70–80% of shipments have samples/data.
	0	More than 20% outside limits and <70% of shipments have samples/data.
Delivery		
Item	Grade	Criteria
Quantity	4	All correct quantities (within tolerance).
	3	Up to 5% shipments incorrect (within tolerance).
	2	>5–10% shipments incorrect (within tolerance).
	1	>10–20% shipments incorrect (within tolerance).
	0	>20% shipments incorrect (within tolerance).
Time	4	All shipments on time (within tolerance).
	3	Up to 5% of shipments outside tolerance.
	2	>5–10% of shipments outside tolerance.
	1	>10–20% of shipments outside tolerance.
	0	>20% of shipments outside tolerance.
Paperwork	4	No missing lot numbers, packing lists, invoice errors, or other required documentation.
	3	Up to 5% of shipments have errors.
	2	>5–10% of shipments have errors.
	1	>10–20% of shipments have errors.
	0	>20% of shipments have errors.
Shipment Condition	4	All shipments received in expected condition.
	3	Up to 5% of shipments have damaged pallets, inadequate packaging, or damaged cartons.
	2	>5–10% of shipments are damaged as above.
	1	>10–20% of shipments are damaged as above.
	0	>20% of shipments are damaged as above.

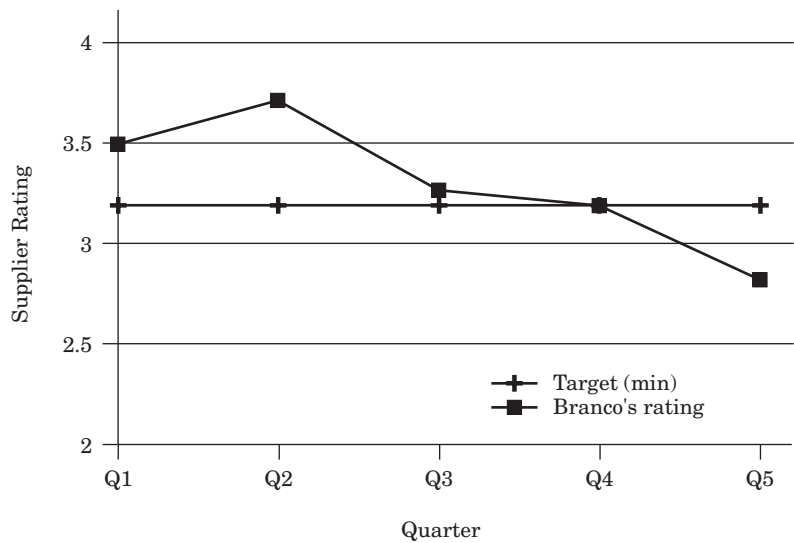
EXHIBIT 1

Continuous Improvement		
Item	Grade	Criteria
Corrective Action	4	CA response and implementation within 30 days.
	3	CA response and implementation within 31–60 days.
	2	CA response within 30 days.
	1	CA response within 31–60 days.
	0	No response within 60 days.
Cost, Lead Time, Lot Size Reduction	4	Major reduction in unit cost, lead time, and lot size.
	2	Minor reduction in unit cost, lead time, and lot size.
	0	No reduction in unit cost, lead time, and lot size.

BRANCO**EXHIBIT 2**

Category	Item Description	Time Score	Weight	Category Score	Weight	Total Score
Quality	Rejected and nonconforming	3	0.65	1.92		
	Process capability, data/samples	2	0.35	0.70		
				2.65	0.50	1.33
Delivery	Quantity	4	0.30	1.20		
	Timely deliveries	4	0.30	1.20		
	Paperwork	4	0.20	0.80		
	Shipment condition	4	0.20	0.80		
				4.00	0.30	1.20
Continuous improvement	Corrective action response	3	0.50	1.05		
	Cost, lead time, lot size reduction	0	0.50	0.00		
				1.50	0.20	0.30
TOTAL						2.83

EXHIBIT 3



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THE MEETING WITH BRANCO

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Case 13–2

Plastic Cable Clips

THE LAUNDRY DIVISION

THE NEW WASHING MACHINE

SUPPLIER SELECTION

OLSON PLASTICS

PLASTIC CABLE CLIPS

EXHIBIT 1

5 July
Dear Sir,

The following new parts are required, commencing next March. Please advise price, minimum quantity, and delivery details.

Part	Description	Qty/Annum
816549	Clip snap .125M × .5	30,000
816553	Clip snap .250M × .75	30,000
817709	Clip-tie HM FT	60,000
817803	Clip-lock HBX	165,000
817923	Clip-tie HM FT (SS)	650,000
817975	Clip-tie HM RS.2	135,000

Samples would be appreciated when possible.
Awaiting your reply with interest.

Yours faithfully,
FISHER & PAYKEL LIMITED

R.H. Pemberton (Mrs.)
Purchasing Officer
Laundry Division

BARRY CLEAVER AND SONS

G. T. ROLLMAN

EXHIBIT 2

The following policy applies to all item codes except those for which specific policies are set on the following pages.

1. Goods of Types Not Produced in New Zealand

Licenses will generally be granted to meet reasonable requirements for goods of types not produced in New Zealand.

Licenses will not be issued under this provision unless it is quite clear that the goods to be imported are not substitutable for domestic alternatives.

The applicants will need to provide adequate evidence that suitable alternatives are not available from New Zealand manufacturers.

In considering applications Trade and Industry will assess the extent to which established licensing provisions have been and are being used to import the goods concerned. The aim of this is to ensure that domestic production is not detrimentally affected by the consequential availability of license to import directly competitive goods.

2. All Other Goods

Licenses may be granted in special circumstances such as:

- Established trading patterns arising from continuing special licensing provision.
- Shortfalls in normal domestic supply.
- Special provision for the requirements of new manufacturers.
- Applications under general policies and provisions set out in Annex III.

Note: Item Codes which fall under Industry Development Plans are subject to any special import licensing provisions of those plans.

PLASTIC DISTRIBUTING**SELECTION DECISION**

EXHIBIT 3

Part No	Description	Barry Cleaver	Olson	Plastic Dist.	Rollman
816549	Clip snap 1.25M × .5	76.00	54.00	99.95	—
816553	Clip snap .250M × .75	76.00	119.80	99.95	—
817709	Clip-tie HM FT	25.20	36.80	28.26	—
817803	Clip-lock HBX	39.20	61.82	—	134.40
817923	Clip-tie HM FT(SS)	23.06	20.40	28.12	—
817975	Clip-tie HM RS.2	38.40	50.00	63.22	—

Case 13–3

Delphi Corporation

**THE DELPHI MANUFACTURING
SYSTEM**

DELPHI CORPORATION

DELPHI SUPPLY MANAGEMENT STRATEGY

FIGURE 1

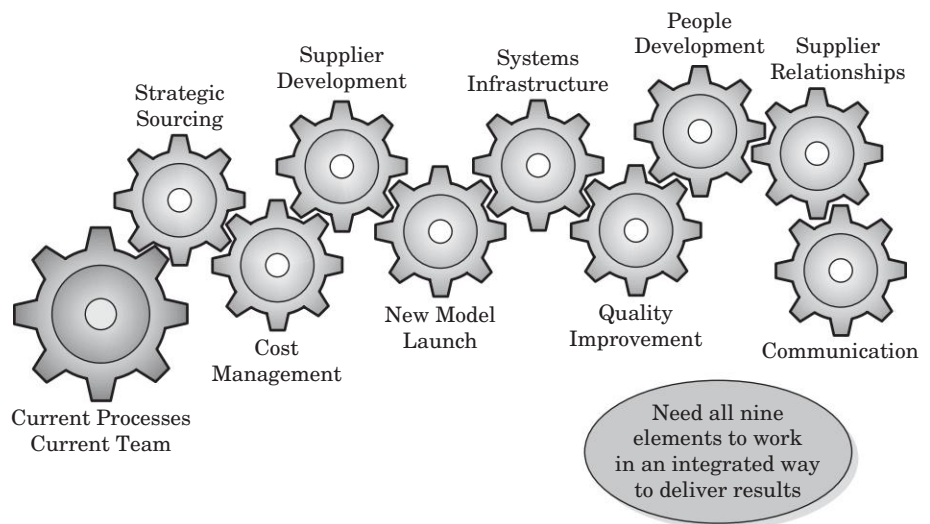
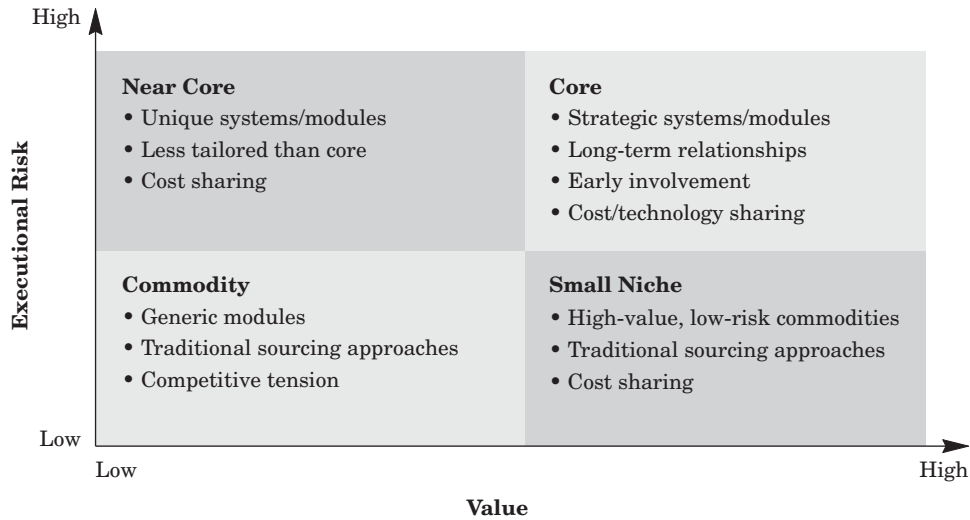


EXHIBIT 2



STRATEGIC SOURCING

LEAN SUPPLIER DEVELOPMENT

COST MANAGEMENT

THE LEAN SUPPLIER DEVELOPMENT PLAN

Chapter Fourteen



Global Supply Management

Chapter Outline

The Importance of Global Supply

Regional Trading Agreements

Selecting and Managing Offshore
Suppliers

Incoterms

Emerging Markets

Conclusion

Questions for Review and Discussion

References

Tools for Global Supply

Cases

Key Questions for the Supply Decision Maker

Should we

- Source more goods and services globally?
- Establish regional or global purchasing offices?
- Buy directly from the supplier or through an intermediary?

How can we

- Locate and evaluate global suppliers?
- Organize for effective global supply management?
- Overcome the potential problems faced in supply from offshore suppliers?

THE IMPORTANCE OF GLOBAL SUPPLY

¹ World Trade Organization, *International Trade Statistics 2002*, p. 34.

Reasons for Global Purchasing

² "Global Purchasing Survey," *Purchasing*, May 18, 2009.

³ D. Hannon, "Supply Trends Have Buyers Sourcing Closer to Home," *Purchasing*, December 17, 2009.

⁴ U.S. Census, <http://www.census.gov/foreign-trade/top/dst/current/balance.html>. (Unless otherwise noted, all the data in this section came from the World Trade Organization, *International Trade Statistics 2009*, available online at www.wto.org).

⁵ H. L. Sirkin, "Mexico: A Better Choice Than China?" *Businessweek*, March 13, 2009.

⁶ H. L. Sirkin, Mexico: A Better Choice Than China? *Businessweek*, March 13, 2009.

⁷ *International Trade Statistics 2009*, Geneva: World Trade Organization, 2009, p. 12.

Potential Problem Areas

⁸ Locke, Dick, *Global Supply Management*, New York, NY: McGraw-Hill, 1996.

SELECTING AND MANAGING OFFSHORE SUPPLIERS

Global Sourcing Organizations

⁹ M. R. Leenders and P. F. Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, 2002).

Intermediaries

¹⁰ Ibid.

¹¹ S. Avery, "Godiva Transforms Purchasing into Global Procurement," *Purchasing*, January 14, 2010, http://www.purchasing.com/article/443489-Godiva_transforms_purchasing_into_global_procurement.php.

Information Sources for Locating and Evaluating Offshore Suppliers

INCOTERMS

Group E—Departure

Group F—Main Carriage Unpaid

Group C—Main Carriage Paid by Seller

¹² Edward G. Hinkelman, *Dictionary of International Trade*, 8th ed., Novato, CA: World Trade Press, 2008.

Group D—Arrival

TOOLS FOR GLOBAL SUPPLY

Countertrade

¹³ Ibid.

¹⁴ Ibid.

¹⁵ U.S. Department of Commerce, Bureau of Industry and Security, *Offsets in Defense Trade, Fourteenth Study*, December 2009.

Foreign Trade Zones

¹⁶ U.S. Department of Commerce, *70th Annual Report of the Foreign-Trade Zones Board*, 2008.

¹⁷ B. M. Schwarz, "FTZ Success," *Transportation and Distribution* 40, no. 7 (July 1999), p. 40.

Bonded Warehouses

Temporary Importation Bond (TIB) and Duty Drawbacks

REGIONAL TRADING AGREEMENTS

¹⁸ *AlixPartners 2009 Manufacturing Outsourcing Cost Index™—Overview and Highlights*, May 2009, <http://www.alixpartners.com/en/MediaCenter/News/tabid/56/language/en-US/ItemID/18/Default.aspx>.

North American Free Trade Agreement (NAFTA)

The European Union (EU)

ASEAN

Mercosur

¹⁹<http://www.ustr.gov/trade-agreements/free-trade-agreements/north-american-free-trade-agreement-nafta>

²⁰www.europa.eu

²¹www.aseansec.org

Andean Community

The World Trade Organization (WTO)

EMERGING MARKETS

²² www.mercosur.int

²³ www.comunidadandina.org

²⁴ www.wto.org

Conclusion

²⁵ K. Scwab, *The Global Competitiveness Report 2009–2010* (Geneva: World Economic Forum, 2009), pp. 17–20.

Questions for Review and Discussion

- References** The 2009. Washington, D.C.: Central Intelligence Agency, 2009, online and updated biweekly. <https://www.cia.gov/library/publications/the-world-factbook/geos/co.html>.
- Daniels, J. D.; L. H. Radebaugh; and D. P. Sullivan. Upper Saddle River, NJ: Prentice Hall, 2002.
- Fishman, T. C. New York: Scribner, 2005.
- Hinkelman, E. G. . 8th ed. Novato, CA: World Trade Press, 2008.
- Leenders, M. R., and P. F. Johnson. . Tempe, AZ: Center for Advanced Purchasing Studies, 2002.
- Schwab, K., et al. . Geneva: World Economic Forum, 2009.
- World Trade Organization. . www.wto.org.
- World Trade Organization Interactive Statistics Database. <http://stat.wto.org/Home/WSDBHome.aspx>.

Case 14–1

Trojan Technologies

As Joyce Guo, senior buyer at Trojan Technologies Inc. in London, Ontario, Canada, finished her presentation, Randy Haill, materials manager, made the following comments to her:

It appears there is a lot of opportunity and I want to proceed to the next step. Joyce, I need you to lay out an implementation plan for low-cost region sourcing that we can take to the president for his approval. Our plan will have to include the sourcing process, a schedule and timeline for implementation, a budget and the expected savings. We will also have to identify the risks and our contingency plans. Get to work on this and let's meet Friday morning next week to follow-up.

It was Thursday, February 23 and, as Joyce packed up her laptop and notes, she recognized that she had a lot more work to do before her meeting with Randy the following week.

TROJAN TECHNOLOGIES

Trojan Technologies Inc. (Trojan) was a leading water treatment technology company with the largest installed base of ultraviolet water treatment systems in operation around the world. Trojan specialized in the design,

manufacture, and sale of pressurized and open-channel, ultraviolet disinfection and water treatment systems for industrial, municipal, commercial, and residential applications. Trojan's head office was in London, Ontario, Canada. The company had sales of \$140 million and employed approximately 400 people in offices around the world, and served its customer base through an extensive network of dealers and representatives.

Trojan was owned by Danaher Corporation (Danaher), which had acquired the company in 2004. Danaher was a diversified global manufacturer, with businesses in professional instrumentation, industrial technologies, and tools and components. Sales revenues were \$6.8 billion with a net profit of \$746 million, and Danaher employed approximately 37,000 people. Management used its Danaher Business System (DBS) of continuous improvement to guide and measure operations and business activities.

Trojan's current product line consisted of 10 systems across its five markets: (1) residential water treatment, (2) municipal drinking water, (3) municipal wastewater, (4) environmental contaminant treatment, and (5) industrial process. Systems for commercial and government customers ranged from approximately \$50,000 to more than \$1 million. These systems, which typically had a product life cycle of 7 to 10 years before being replaced

THE PURCHASING ORGANIZATION

IMPLEMENTATION PLAN

THE LOW-COST REGION SOURCING PROJECT

EXHIBIT 1

Part Number	Description	Piece Price (\$)	Annual Volume
PJ - 224	Stainless Steel Tray	13.31	2,000
PJ - 245	Stainless Steel Tray	6.11	10,000
ML - 092	Metal Disk	2.37	72,000
ML - 667	Clamp	1.65	15,000
RK- 376	Spring	1.07	20,000
LM - 144	O-Ring	0.18	20,000
GA - 136	Quartz Sleeve	27.62	15,000
GA- 208	Quartz Sleeve	18.57	18,000
GA - 659 - 1	Quartz Sleeve	6.19	700
GA - 659 - 2	Quartz Sleeve	5.85	1,000
GA - 659 - 3	Quartz Sleeve	8.66	11,000
GA - 024	Quartz Sleeve	27.62	2,000
RR - 061	Ceramic Disk	1.87	70,000
JH - 625	Machined Collar	139.15	500
DM - 354 - 01	Weldment	52.03	6,000
DM - 354 - 02	Weldment	63.03	1,000
TB - 024 - 01	Wire Harness	9.47	2,500
TB - 024 - 02	Wire Harness	13.27	2,500
TB - 024 - 03	Wire Harness	17.15	2,500
TB - 024 - 04	Wire Harness	21.37	2,500
PB - 554	PS 120/130V 50W	46.20	250
ML - 174	Metal Bracket	15.95	1,050

Case 14–2**Marc Biron****MARC BIRON****BCI**

SUPPLY AT BCI

MARC BIRON'S ASSIGNMENT

THE MARKETING SPEND

THE NEW BCI PRESIDENT

Chapter Fifteen



Legal and Ethics

Chapter Outline

Legal Authority of Buyer and Seller

Product Liability

Alternative Dispute Resolution

The Uniform Commercial Code

Regulatory Requirements

Ethics

Common Law and the Purchase
of Services

Principles of the Law of Software
Contracts

E-Commerce and the Law

Corporate Social Responsibility (CSR)

Conclusion

Questions for Review and Discussion

References

Cases

Intellectual Property Laws

Key Questions for the Supply Decision Maker

Should we

- Put all purchase agreements in writing?
- Develop and support a set of principles of social responsibility?
- Use alternative dispute resolution in large-dollar purchase agreements?

How can we

- Minimize the organization's legal and ethical exposure?
- Minimize our own personal liability for purchase actions?
- Avoid legal disputes with suppliers?

LEGAL AUTHORITY OF BUYER AND SELLER

Legal Authority of the Buyer

Personal Liability

Authority of Suppliers' Representatives

THE UNIFORM COMMERCIAL CODE

Purpose of a Uniform Commercial Code

The Purchase Order Contract

Acceptance of Offers

Purchases Made Orally—Statute of Frauds

Inspection

Acceptance and Rejection of Goods

Warranties

Title to Purchased Goods

Protection against Price Fluctuations

Cancellation of Orders and Breach of Contract

COMMON LAW AND THE PURCHASE OF SERVICES

FIGURE 15–1

- | | |
|--|--|
| 1. Definitions and Rules of Construction | 9.1. Key Supplier Personnel |
| 2. Scope of Services [refers to the Statement of Work] | 9.2. Limitations on Transfers of Key Supplier Personnel |
| 3. Term of Agreement | 9.3. Replacement of Supplier Personnel |
| 4. General Provisions | 9.4. Qualifications of Supplier Personnel |
| 4.1. Entire Agreement | 9.5. No Solicitation of Employees of Other Party |
| 4.2. Notices | 10. Buyer Responsibilities |
| 4.3. Governing Law | 11. Supplier's Representatives and Warranties |
| 4.4. Confidentiality | 11.1. Supplier Warranties and Additional Covenants |
| 4.5. Audit Rights | 11.2. Disclaimer of Warranties |
| 4.6. Access | 12. Indemnities |
| 4.7. Severability | 13. Limitation of Liability |
| 4.8. Media Releases | 14. Request for Renegotiation |
| 4.9. Right to Engage in Other Activities | 15. Documents Incorporated by Reference |
| 5. Service Level Agreements | 16. Appendices |
| 5.1. Service Levels in General | 16.1. Scope of Services [Statement of Work] |
| 5.2. Periodic Reviews and Revisions to Service Levels | 16.2. Service Level Agreements/Performance Credits |
| 5.3. Measurement and Monitoring Tools for Service Levels | 16.3. Charges, Measures of Utilization, and Financial Responsibilities |
| 6. Termination | 16.4. Travel Guidelines and Policy |
| 6.1. Termination by Buyer for Cause | 16.5. Technology Standards |
| 6.2. Termination by Supplier for Cause | 16.6. Reporting and Meeting Requirements |
| 6.3. Termination for Convenience | 16.7. Approved Subcontractors |
| 6.4. Service Level Termination Event | 16.8. Procedures Manual |
| 7. Charges | |
| 8. Invoicing and Payment | |
| 9. Personnel Matters | |

PRINCIPLES OF THE LAW OF SOFTWARE CONTRACTS

E-COMMERCE AND THE LAW

Electronic Signatures

¹ Joint Statement on Electronic Commerce by U.S. and Japan, found on web site of McBride Baker & Coles, <http://www.mbc.com/ecommerce> www.mbc.com/ecommerce.

U.S. Uniform Electronic Transactions Act

Antitrust and E-Marketplaces

² Patricia Brumfield Fry, "A Preliminary Analysis of Federal and State Electronic Commerce Laws," UETA Online, <http://www.nccusl.org/update/whatsnew-article1.asp>.

INTELLECTUAL PROPERTY LAWS

³ American Bar Association Committee on Cyberspace Law, "Antitrust: B2B e-Marketplaces," Legislative Reporters, <http://www.abanet.org/buslaw/cyber/legislation/anti.html>.

Copyright Law

Patents

⁴ "<http://www.copyright.gov/title17/92appvi.html>" "<http://www.wipo.int/>" World Intellectual Property Organisation (WIPO).

Trademarks

Industrial Design

Geographical Indication

PRODUCT LIABILITY

ALTERNATIVE DISPUTE RESOLUTION

Commercial Arbitration

Mediation

Internal Escalation

REGULATORY REQUIREMENTS

The Sarbanes-Oxley Act

Environmental Regulations

ETHICS

FIGURE 15–2**VALUES AND NORMS OF ETHICAL BEHAVIOUR****A. Values**

Members will operate and conduct their decisions and actions based on the following values:

1. *Honesty/Integrity*. Maintaining an unimpeachable standard of integrity in all their business relationships both inside and outside the organizations in which they are employed;
2. *Professionalism*. Fostering the highest standards of professional competence amongst those for whom they are responsible;
3. *Responsible Management*. Optimizing the use of resources for which they are responsible so as to provide the maximum benefit to their employers;
4. *Serving the Public Interest*. Not using their authority of office for personal benefit, rejecting and denouncing any business practice that is improper;
5. *Conformity to the Laws*. In Terms of:
 - A. The laws of the country in which they practice;
 - B. The Institute's or Corporation's Rules and Regulations
 - C. Contractual obligations.

B. Norms of Ethical Behaviour

1. To consider first, the interest of one's organization in all transactions and to carry out and believe in its established policies.
2. To be receptive to competent counsel from one's colleagues and be guided by such counsel without impairing the responsibility of one's office.
3. To buy without prejudice, seeking to obtain the maximum value for each dollar of expenditure.
4. To strive for increased knowledge of the materials and processes of manufacture, and to establish practical procedures for the performance of one's responsibilities.
5. To participate in professional development programs so that one's purchasing knowledge and performance are enhanced.
6. To subscribe to and work for honesty in buying and selling and to denounce all forms of improper business practice.
7. To accord a prompt and courteous reception to all who call on a legitimate business mission.
8. To abide by and to encourage others to practice the Professional Code of Ethics of the Purchasing Management Association of Canada and its affiliated Institutes and Corporation.
9. To counsel and assist fellow purchasers in the performance of their duties.
10. To cooperate with all organizations and individuals engaged in activities that enhance the development and standing of purchasing and materials management.

RULES OF CONDUCT

In applying these rules of conduct, members should follow guidance set out below:

- A. *Declaration of Interest*. Any personal interest which may impinge or might reasonably be deemed by others to impinge on a member's impartiality in any matter relevant to his or her duties should be immediately declared to his or her employer.

- B. *Confidentiality and Accuracy of Information.* The confidentiality of information received in the course of duty must be respected and should not be used for personal gain; information given in the course of duty should be true and fair and not designed to mislead.
- C. *Competition.* While considering the advantages to the member's employer of maintaining a continuing relationship with a supplier, any arrangement which might prevent the effective operation of fair competition should be avoided.
- D. *Business Gifts and Hospitality.* To preserve the image and integrity of the member, the employer and the profession, business gifts other than items of small intrinsic value should not be accepted. Reasonable hospitality is an accepted courtesy of a business relationship. The frequency and nature of gifts or hospitality accepted should not be allowed whereby the recipient might be or might be deemed by others to have been influenced in making a business decision as a consequence of accepting such hospitality or gifts.
- E. *Discrimination and Harassment.* No member shall knowingly participate in acts of discrimination or harassment towards any person that he or she has business relations with.
- F. *Environmental Issues.* Members shall recognize their responsibility to environmental issues consistent with their corporate goals or missions.
- G. *Interpretation.* When in doubt on the interpretation of these rules of conduct, members should refer to the Ethics Committee of their Institute or Corporation.

FIGURE 15-3

**LOYALTY TO YOUR ORGANIZATION
JUSTICE TO THOSE WITH WHOM YOU DEAL
FAITH IN YOUR PROFESSION**

From these principles are derived the ISM standards of supply management conduct. (Global)

1. Avoid the intent and appearance of unethical or compromising practice in relationships, actions, and communications.
2. Demonstrate loyalty to the employer by diligently following the lawful instructions of the employer, using reasonable care and granted authority.
3. Avoid any personal business or professional activity that would create a conflict between personal interests and the interests of the employer.
4. Avoid soliciting or accepting money, loans, credit, or preferential discounts, and the acceptance of gifts, entertainment, favors, or services from present or potential suppliers that might influence, or appear to influence, supply management decisions.
5. Handle confidential or proprietary information with due care and proper consideration of ethical and legal ramifications and governmental regulations.
6. Promote positive supplier relationships through courtesy and impartiality.
7. Avoid improper reciprocal agreements.
8. Know and obey the letter and spirit of laws applicable to supply management.
9. Encourage support for small, disadvantaged, and minority-owned businesses.
10. Acquire and maintain professional competence.
11. Conduct supply management activities in accordance with national and international laws, customs, and practices, your organization's policies, and these ethical principles and standards of conduct.
12. Enhance the stature of the supply management profession.

Approved January 2002

FIGURE 15–4**Precepts**

Members shall not use their authority or office for personal gain and shall seek to uphold and enhance the standing of the purchasing and supply management profession and the Federation by:

- A. Maintaining an unimpeachable standard of integrity in all their business relationships both inside and outside the organizations in which they are employed;
- B. Fostering the highest standards of professional competence amongst those for whom they are responsible;
- C. Optimizing the use of resources for which they are responsible so as to provide the maximum benefit to their employers;
- D. Complying with the letter and the spirit of:
 - I. The laws of the country in which they practice;
 - II. The Federation's 'guidance' on professional practice as outlined below and as may be issued by the Federation from time to time; and
 - III. Contractual obligations.
- E. Rejecting and denouncing any business practice that is improper; and
- F. Enhancing the proficiency and stature of the profession by acquiring and maintaining current technical knowledge.

Guidance

In applying these precepts, members should follow the guidance set out below:

- A. Declaration of interest. Any personal interest which may impinge or might reasonably be deemed by others to impinge on a member's impartiality in any matter relevant to their duties should be declared to their employer.
- B. Confidentiality and accuracy of information. The confidentiality of information received in the course of duty must be respected and should not be used for personal gain; information given in the course of duty should be true and fair and not designed to mislead.
- C. Competition. While considering the advantages to the member's employer of maintaining a continuing relationship with a supplier, any arrangement which might, in the long term, prevent the effective operation of fair competition, should be avoided.
- D. Business gift. To preserve the image and integrity of both the member and the employer, business gifts should be discouraged. Gifts, other than items of very small intrinsic value should not be accepted.
- E. Hospitality. Moderate hospitality is an accepted courtesy of a business relationship. However, the recipients should not allow themselves to reach a position whereby they might be or might be deemed by others to have been influenced in making a business decision as a consequence of accepting such hospitality. The frequency and scale of hospitality accepted should not be significantly greater than a recipient's employer, through the recipient's expense account, would be likely to provide in return.
- F. When in doubt of what is acceptable in terms of gifts and hospitality, the offer should be declined or advice sought from the member's superior.

Perceptions

Conflict of Interest

Gifts and Gratuities

⁵ T. Fox, "FCPA Compliance and FCPA Enforcement: A Look Ahead to 2009 and Beyond," *Corporate Compliance Insights*, May 19, 2009, <http://www.corporatecomplianceinsights.com/2009/fcpa-compliance-fcpa-enforcement-obama-mcnulty-ashcroft-comments-on-foreign-corrupt-practices-act>.

⁶ D. B. Henriques, "F.B.I. Charges Arms Sellers with Foreign Bribes," *New York Times*, January 21, 2010, <http://www.nytimes.com/2010/01/21/business/21sting.html?th&emc=th> Jan. 21, 2010 p. A3 in print version.

Promotion of Positive Relationships with Suppliers

Reciprocity

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Conclusion

⁷ The case is *FTC v. Consolidated Foods*, 380 U.S. 592 (1965).

Questions for Review and Discussion

1. What is corporate social responsibility and how does this issue affect supply managers?
2. Under what conditions is it realistic for a buyer to cancel a contract for goods? For services? For a seller to cancel a contract for goods? For services?
3. Does a supplier have to accept a PO exactly as offered by the buyer to create a legally binding contract?
4. What is alternative dispute resolution? When and how should it be used?
5. Does a salesperson have basically the same legal authority as a buyer? If not, how is it different?
6. What are the legal rights of the buyer if goods delivered by a supplier do not measure up to the specifications?
7. Under what conditions might purchasers be personally liable for contracts they enter into?
8. Is an oral contract legally enforceable? Under what conditions?
9. What authority does a supply manager have to make decisions that are binding on the principal? What responsibility do purchasing agents have for the consequences of their decisions?
10. What actions can the supply manager take to protect intellectual property rights and avoid legal action?
11. What can supply managers do to minimize the company's risk of a product liability lawsuit?
12. What legal issues would you want to consider before setting up an e-procurement system in a company?
13. What are the liability issues when contracting for software?
14. Where does the borderline fall between gratuities and bribery?

References

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Case 15–1

Rocky Plains Brewing Ltd.

ROCKY PLAINS BREWING LTD.

GILPIN PRINTING

CONTRACT REVIEW

* 1 barrel = 13.8 cases of beer with 24 bottles per case.

EXHIBIT 1

Sales	\$34,296
Profit before tax	(1,014)
Write-downs	13,715
Net profit (loss)	(14,729)
Current assets	9,222
Noncurrent assets	9,953
Current liabilities	12,239
Long term debt	21,471
Shareholders equity (deficit)	(14,535)

NEGOTIATIONS WITH GILPIN

THE DECISION

RESPONSE FROM GILPIN

Case 15–2

Sinclair & Winston

SINCLAIR & WINSTON

CROSS ARM PROBLEMS

EXHIBIT 1

Re: Replacement of Henry Nelson Company—345 KV Cross Arms—Addison-Smithfield-Mesa Valley

It is required that all the groundwire and conductor cross arms on the line be removed and replaced with modified or new cross arms. It is the purpose of this correspondence to review the problems that have occurred and to outline a specific specification for the handling of these damaged cross arms. We will also continue the procedures for the installation of new cross arms on poles already erected and on new poles that have not been erected.

Through an extensive engineering research program, it was determined that the existing Nelson Company cross arms have low fatigue properties. First, the existing cross arm will fail by low velocity wind induced (aeolian) vibration, which can cause a fatigue failure in less than a month. Second, the cross arm can fail by fatigue over a period of approximately 15 years by the continuing reversal of stresses due to the galloping of the conductors.

The problem of aeolian vibration can be resolved by the use of dampening devices mounted on the ends of the cross arms. Examples would be the use of insulator strings on the conductor cross arms and stockbridge dampers on the groundwire cross arms. The problem of designing for galloping requires the reduction of the stress level at the weldment of the cross arm shaft to the cross arm baseplate. This can be accomplished by the use of stiffener bars on existing cross arms that have been fabricated but not erected. It can be accomplished on the damaged arms by the use of new thicker baseplates for the conductor cross arms. On new cross arms to be fabricated, there will be some of both of the types previously described.

Summary of estimates

Damaged arm repair:	
1,310—Structures Canadian	\$1,492,504
Nondamaged arm repair:	
1,245—Structures Canadian	929,176
3,007—Hendy Nelson	1,256,860
Contractor—remove and replace	1,280,000
Research costs	400,000
Total	\$5,358,540

EXHIBIT 2

Mr. John Carter
Vice President of Supply
Moren Corporation

Dear Mr. Carter:

Re: 345 KV Transmission Pole Failures

This is to confirm our opinion as expressed at the meeting held in your office on Monday. As you will recall, two basic legal matters were discussed, to wit the possible bases of liability of the three parties involved and whether the company would jeopardize its rights by proceeding to repair the poles without first consulting any of those parties.

Concerning the latter, if the company is entitled to recover from anyone, it can reasonably expect to recover the cost of correcting the problem. The cost of doing so must be reasonable, and the repair must also be reasonably likely to correct the problem. In other words you cannot recover for a “gold plating” job, nor can you recover the cost of a repair that does not correct the problem. This right to recover is not affected by a failure to negotiate in advance with any party against which a claim might be made. If, however, any such party is consulted in advance of the commencement of a repair program and is given a chance to participate in determining the repair to be used, the chances of later being required to defend either the necessity of that repair or its cost would be greatly reduced.

With respect to the liabilities of each party, the contracts and related documents have been reviewed in detail on the basis of the company’s findings that the cause of the damage to the pole arms was wind vibration, which can be substantially avoided by dampening the arms with conductors, rather than letting the bare arms stand. As stated at the meeting, the bases for potential liability of each party can be set out, and the company can then assess the value of each on the basis of the known facts.

McTaggart Construction Company performed its services pursuant to a detailed contract that covered the work to be done but did not provide any specific rights or remedies for a situation like the one now faced. In order to recover from McTaggart, whether on a theory of breach of contract or of negligence, it will be necessary to show that in erecting the poles, McTaggart did not exercise the degree of care, skill, and diligence that a reasonably competent contractor, purporting to be able to erect poles and lines, would have exercised. The McTaggart contract does not, in our opinion, impose any burden on McTaggart for engineering or design adequacy.

As for Henry Nelson Company, their contract consists of a purchase order with detailed specifications attached thereto. There are no commercial terms, such as warranties, in the contract that relate directly to the arm failure problem. There are, however, four (4) possible bases of liability, which are

1. *Faulty design*: This would require that Nelson be shown to have had general design responsibility and that the current problem is a result of faulty design. The principal problem in this area is that the contract appears to give Nelson the burden of designing to Pettigrew Associates’ specifications only.
2. *Breach of warranty*: If Nelson had reason to know the use to which the poles would be put and to know that Moren was relying on Nelson’s skills and ability to produce a product fit for that purpose, then there would be in the contract an implied warranty that the poles would be fit for the purpose for which they were intended to be used. The primary weakness here is that the poles may well be fit for their ultimate intended use, and it would be necessary to show that Nelson knew or had reason to know that the poles would be erected and left standing without conductors.
3. *Failure to detail assembly procedures*: Section 14 of the Pettigrew specification indicates in part that “the Vendor shall provide sketches indicating assembly procedures and the most desirable attachment points for raising the structures.” With the benefit of hindsight, it can be argued that this includes the responsibility to direct that the arms be hung with conductors, although there seems to be general agreement that this is not necessarily what 14 was intended to cover.
4. *Failure to comply with the National Electrical Safety Code*: 24 of the Pettigrew specification require compliance with the NESC, and it appears that here may be some basis for asserting that Nelson did not comply. This depends, as I understand it, largely upon whether the relevant section of the NESC can be construed as covering poles erected without conductors.

Finally, as regards Pettigrew Associates, the company has a contract pursuant to which Pettigrew is selected “. . . to perform the engineering and design services in connection with (the) Addison-Smithfield-Mesa Valley 345 KV Transmission Line Project.” Article 1 provides that Pettigrew will “. . . furnish complete project administration for coordinating and expediting the Work” and is to perform services “. . . of the highest professional character . . .” with Pettigrew being “. . . fully responsible to Moren for the correctness

(Continued)

EXHIBIT 2

of the engineering design and related data . . .,” which included pole design. In addition, Pettigrew evaluated all bids, including designs offered, and recommended the award to Henry Nelson. If it can be shown either that the engineering design and related data were not correct or were not of the highest professional quality, then the company should have a sound cause of action against Pettigrew. I might add that the term “incorrect” can readily be construed to include omissions. As for the professional quality ground, it would be necessary to introduce expert testimony or evidence, or both, to establish that a top-quality engineer would have at least considered the wind vibration problem.

Depending on the fact that you are able to establish, the company may have a cause of action against one or more of the parties involved. We would be pleased to assist you further, should you so request, in progressing any claim the company may wish to make.

Yours very truly,
W. N. Sinclair

EXHIBIT 3

Year 1	
March	Management approves use of ornamental tubular steel poles for the 140-mile line.
April–July	Preliminary work and search for engineering consultant.
August	Pettigrew Associates selected as consulting engineers to prepare pole specifications, line layout, and assist in selection of manufacturer and erection.
Year 2	
March	Pettigrew Associates submit pole specification and line layout.
April–July	Engineering and purchasing evaluation of manufacturing of poles for the first half of the line.
July	Henry Nelson selected as the pole manufacturer.
June–September	Engineering and purchasing evaluation of foundation and erection contractors.
September	McTaggart Construction chosen for both foundation and erection of the new line.
October	Delivery of test poles by Henry Nelson. Tests prove poles meet specifications.
January	Installation starts. New poles draw favorable employee and public attention.
February 20	Henry Nelson completes manufacture of poles for Addison-Smithfield section.
February 24	First cross arm failure noted. Purchasing notifies all three suppliers. All deny blame
February 26	All project work halted.
Year 3	
March–April	Continuing pole cross arm failures. Engineering searches for causes.
May 11	Engineering determines reason for failure.
May 25	Purchasing determines repair costs.
May 25	Mr. Carter sends memo to Sinclair & Winston for a legal opinion.
May 30	Sinclair & Winston representatives meet with Mr. Carter.
May 31	Letter from W.N. Sinclair confirming legal opinion.
Year 4	
April 30	Project deadline.

Chapter Sixteen



Other Supply Responsibilities

Chapter Outline

Receiving

Logistics and Warehousing

Inbound and Outbound Transportation

Production Planning

Accounts Payable

Investment Recovery

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

- Attempt to use scrap, surplus, and excess materials in-house?
- Arrange for our raw material suppliers to purchase scrap materials?
- Give supply responsibility for accounts payable?

How can we

- Improve the investment recovery process?
- Make improvements to our receiving process?
- Work effectively with operations and sales and marketing to achieve better supply chain integration?

RECEIVING

LOGISTICS AND WAREHOUSING

INBOUND AND OUTBOUND TRANSPORTATION

PRODUCTION PLANNING

ACCOUNTS PAYABLE

INVESTMENT RECOVERY

Categories of Material for Disposal

¹ Ellram, L. and W. Tate, "IBM's Supply-Base Efforts toward Sustainability," *Practix*, CAPS Research, August 2003.

Responsibility for Material Disposal

² P. F. Johnson, and M. R. Leenders, *Supply's Organizational Roles and Responsibilities* (Tempe, AZ: CAPS Research, 2004).

Keys to Profitable Disposal

Disposal Channels

Disposal Procedures

Selection of Disposal Partners

Conclusion

Questions for Review and Discussion

References

Case 16–1

Ross Wood

DICKSON ELECTRONICS

CLAUDE DAKIN'S PROPOSAL

ROSS WOOD

Case 16–2

Raleigh Plastics

THE NEW CONTRACT

RALEIGH PLASTICS

SUPPLY MANAGEMENT

THE CURRENT SITUATION

Chapter Seventeen



Supply Function Evaluation and Trends

Chapter Outline

Organizing for Supply Research

Supply Research Opportunities

Supply Planning Process

Supply Budgets

Performance Measurement Systems

Establishing Metrics

What Is Happening in Supply Management

Conclusion

Questions for Review and Discussion

References

Cases

Key Questions for the Supply Decision Maker

Should we

- Recognize supply research as a formal activity?
- Develop a consistent, formal system for evaluating supply performance?
- Audit our suppliers' sustainability practices?

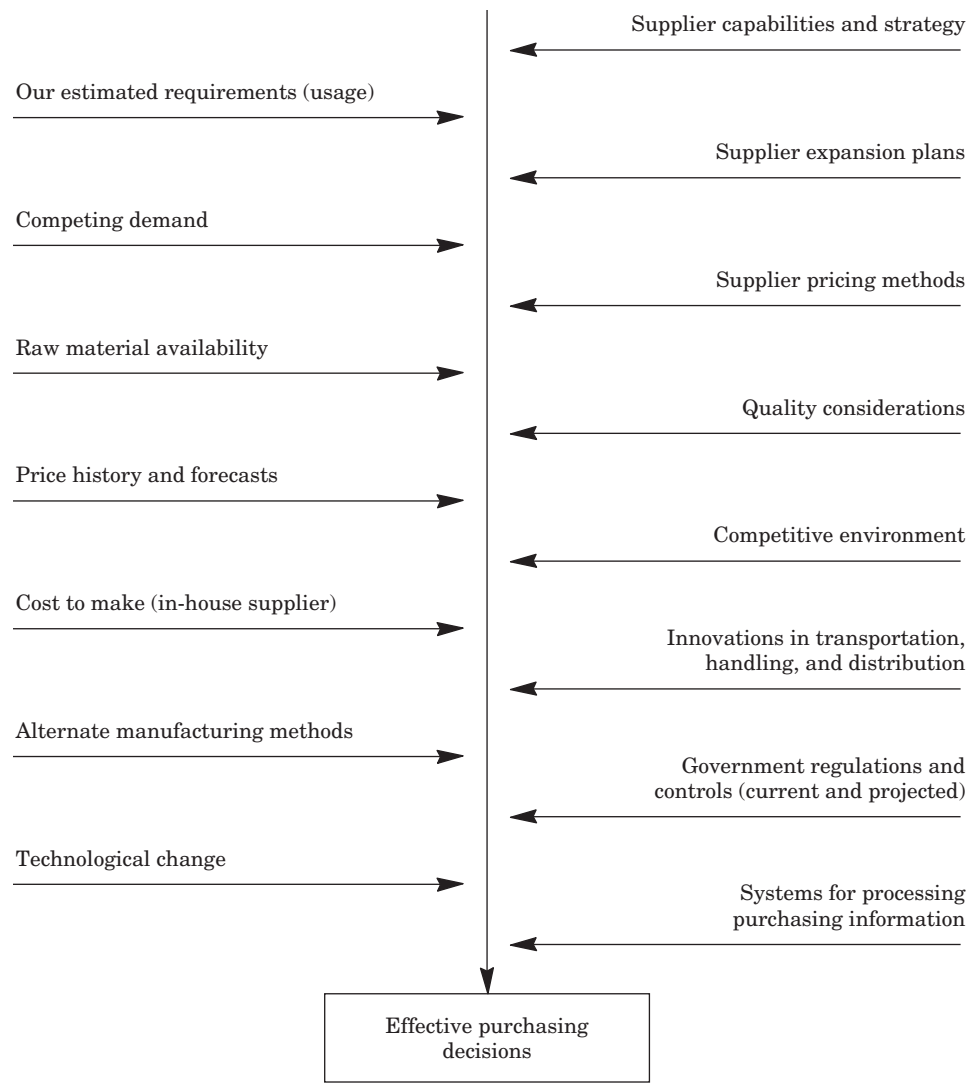
How can we

- Measure supply's contribution more effectively?
- Get internal validation for the budgetary impact of supply's performance?
- Make business decisions that are financially superior and environmentally sound?

ORGANIZING FOR SUPPLY RESEARCH

Full-Time or Part-Time Research Positions

FIGURE 17–1



Cross-Functional Teams

FIGURE 17-2



Job Title: Supply Cost Management Specialist
Department: Supply Management
Supervises: None, may facilitate/lead team activities
Job Function: Enabling the design and procurement processes to obtain the best value from the supply base.

Primary Duties:

1. Develop cost models and tables for direct materials to be used for
 - Evaluating cost competitiveness of product designs.
 - Creating product target costs on a part-by-part basis.
 - Creating supplier target costs to enable fact-based negotiations.
 - Highlighting potential cost reduction areas.
2. Utilize cost management techniques to give accurate and timely cost evaluations of designs on a part-by-part basis.
3. Support Strategic Sourcing in meeting or exceeding product cost goals for direct material.
4. Support Strategic Sourcing in all aspects of cost reduction activities including
 - Utilizing cost management techniques to determine potential areas for cost reduction.
 - Tracking, forecasting, and budgeting for cost reduction of Order Fulfillment Process (OFP) cost activities.
 - Facilitating the JD CROP (John Deere Cost Reduction Opportunities Process) at the unit level.
 - Participating or facilitating the Compare and Share process with Strategic Sourcing and the Value Improvement process.
5. Participate or lead enterprise-level cost management activities such as cost modeling or training.

SUPPLY RESEARCH OPPORTUNITIES

Purchased Materials, Products, or Services

¹ D. Hannon, "Shorter Is Better for Toyota's Supply Chain," *Purchasing* 137, no. 8 (2008), p. 4.

FIGURE 17–3

- I. Rationale: VA is a systematic and creative approach to improve value without impairing quality.
- II. Select a relatively high-cost or high-volume purchased item to value analyze. This item can be a component, material, or service that is believed to cost more than it should.
- III. Thoroughly describe how the item is used and what is expected of it—its *function*. Define the function in a verb-noun, two-word combination, such as “holds liquid.”
- IV. Ask the following questions of the item:
 1. Does its use contribute value?
 2. Is its cost proportionate to its usefulness?
 3. Can basic and secondary functions be separated?
 4. Have functional requirements changed over time?
 5. Does it need all its features?
 6. Is there anything better for the intended use?
 7. Are the original specs realistic under today’s conditions?
 8. Can the item be eliminated?
 9. If the item is not standard, can a standard item be used?
 10. If it is a standard item, does it completely fit the application or is it a misfit?
 11. Does the item have greater capacity than required?
 12. Is there a similar item in inventory that could be used?
 13. Can the weight be reduced?
 14. Have new materials or designs been developed that would alter performance of the product?
 15. Are closer tolerances specified than are necessary?
 16. Is unnecessary machining performed on the item?
 17. Are unnecessary fine finishes specified?
 18. Is commercial quality specified?
 19. Can the item be made cheaper internally?
 20. If being made internally, can the item be purchased for less?
 21. Is the item properly classified for shipping purposes?
 22. Can cost of packaging be reduced?
 23. Are suppliers of the item being asked for suggestions to reduce cost?
 24. Do material, reasonable labor, overhead, and profit total its cost?
 25. Will another dependable supplier provide it for less?
 26. Is anyone buying it for less?
- V. Following the Initial Analysis:
 1. Where practical, get samples of the proposed item(s).
 2. Select the best possibilities and propose changes.
- VI. Follow-up: Were the expected benefits realized?
- VII. Outcome: *A thorough study is almost certain to uncover many potential savings!*

Commodities

² L. Ellram, "The Role of Supply Management in Target Costing" (Tempe, AZ: CAPS Research, 1999).

FIGURE 17-4

The completed commodity study should provide data and/or answers for each of the following categories to the extent required by the particular commodity. Additional items may also be very pertinent.

- I. *Current and future status.* Includes a description of the commodity, its current usage and forecast of future requirements, suppliers, price, terms, annual expenditures, mode of transport, and current contracts.
- II. *Production process.* Includes how the item is made, the materials used, the supply/price status of these materials, the labor required, the current and future labor situation, alternative production processes, and the possibility of making the item, including costs, time factor, and production problems.
- III. *Uses of the item.* Includes primary use(s), secondary use(s), possible substitutes, and the economics of substitution.
- IV. *Demand.* Includes the firm's current and future requirements, inventory status, sources of forecast information and lead times, and competing demand—current and projected—by industry, by endproduct use, and by individual firm.
- V. *Supply.* Includes current producers—location, reliability, quality, labor situation, capacity, distribution channels, and strengths and weaknesses of each supplier; total (aggregate) supply situation, current and projected; and external factors—import issues, government regulations, technological change forecast, and political and ecological trends/problems.
- VI. *Price.* Includes economic structure of producing industry, price history and future forecast, factors determining price, cost to produce and deliver, tariff and import regulations, effects of quality and business cycle changes on price, estimated profit margins of each supplier, price objectives of suppliers, potential rock-bottom price, and price variance among user industries.
- VII. *Strategy to reduce cost and/or assure supply.* Includes considering forecasted supply, usage, price, profitability, strengths and weaknesses of suppliers, the company's position in the market, and its plan to lower cost and to assure supply. It also includes consideration of the option to make the item in-house, use a short-term or long-term contract, acquire or develop a producer, find a substitute, import, hedge, perform value-engineering/analysis, and negotiate volume commitments with suppliers.
- VIII. *Appendix.* Includes general information such as specifications, quality requirements and methods, freight rates and transportation costs, storage and handling, raw materials reserve; and statistics, for example, price, production, and purchase trends.

Suppliers

Assessing Research Results

SUPPLY PLANNING PROCESS

SUPPLY BUDGETS

PERFORMANCE MEASUREMENT SYSTEMS

The Value of Supply Metrics

The Challenges

Measuring Supplier Performance

Supply Management Performance Metrics

ESTABLISHING METRICS

Efficiency Metrics

Effectiveness Metrics

Operating Reports

³ One useful means of evaluating the reasonableness of prices actually paid is to compare actual price to an index of market prices. This can provide a good reading on whether the trend of purchasing's prices paid performance is better or worse than that being experienced by the overall market.

Validating Results

Appraising Team Performance

⁴ P. F. Johnson, and M. R. Leenders, "Minding the Supply Savings Gaps," *MIT Sloan Management Review* 51, no. 2, pp. 25–31.

Supply Performance Benchmarking

⁵ www.capsresearch.org, February 2010.

WHAT IS HAPPENING IN SUPPLY MANAGEMENT

**Emphasis on Total Quality Management
and Customer Satisfaction**

This will require a focus on understanding total costs of supply decisions and cost management capabilities. Cost management begins with early supply involvement in product design and represents ongoing efforts to analyze cost drivers and target opportunities to reduce total supply chain costs. Such efforts require cross-functional support, supplier involvement, and trained cost management specialists to lead the initiative.

Corporate Social Responsibility and Sustainability

Whether the motivation is a result of government legislation, customer pressures, opportunities to reduce costs, or an incentive to enhance public image, organizations have embraced corporate social responsibility (CSR) and sustainability. Increasingly, organizations are paying close attention to the combination of their social, environmental, and financial performance—what has been referred to as the “triple bottom line.”⁶

Supply is in a unique position to participate and influence CSR and sustainability initiatives. A study by CAPS Research identified four areas where supply can play a leadership role in CSR practices:⁷

: CSR activities related to supplier relationship management (SRM) range from environmental performance measurement and supplier audits to sharing organizational plans and strategies related to CSR with key suppliers. SRM combines elements of measurement and communication and includes

1. Workplace audits of suppliers in developing countries by third parties. SA8000 is a global social responsibility standard based on the UN Universal Declaration of Human Rights, Convention on the Rights of the Child and International Labour Organization (ILO) conventions for workplace conditions. It sets standards for purchasing organizations in areas such as working hours, child labor, and health and safety.
2. Product safety and traceability can be a legal requirement in some industries; understanding the provenance of products in your supply chain can help to identify potential problems and opportunities with respect to social and environmental performance.
3. Carbon footprint is a potentially big trend, which is increasingly important in both B2B and B2C markets. However, it is very challenging to implement. For example, where do you draw the boundary of carbon impact at your operations? your suppliers operations? your customers operations? your suppliers' suppliers?
4. Closed loop supply chains can reduce environmental impact. Closed loop supply chains can be created either by third parties (usually recycling) or by the OEM to increase the options for value recovery through reuse or remanufacture.

: Alert supply professionals must always be on the lookout for opportunities to access new technologies or best practices from the supply base and CSR is no different. Suppliers can provide innovations with respect to environmental management practices in areas such as technology, materials, and process management. Materials no longer can be selected and used without considering their eco-efficiency (e.g., improving material utilization per unit of production, their recyclability, and their potential for generating hazardous waste).

⁶ J. Elkington, *Cannibals with Forks: The Triple Bottom Line of the 21st Century* (Stoney Creek, CT: New Society Publishers, 1998).

⁷ T. Gattiker; W. Tate; and C. R. Carter, *Supply Management's Strategic Role in Environmental Practices* (Tempe, AZ: CAPS Research, 2008).

Globalization versus Local Sourcing

⁸ www.ism.ws.

⁹ *Environmental Sustainability at Xerox*, www.xerox.com.

¹⁰ S. Stokes; K. Dooley; and L. Arnseth, "Wal-Mart's Sustainability Index," *Inside Supply Management*, October 2009, pp. 19–21.

¹¹ R. M. Monczka; R. J. Trent; and K. J. Petersen, *Effective Global Sourcing and Supply for Superior Results* (Tempe, AZ: CAPS Research, 2006).

Risk Management

Safety and Security

Supply Processes and Technology

¹² New York Stock and Commodity Exchanges, www.nyse.com.

Supply Organizations

External and Internal Collaboration

Metrics and Performance Measurement

Innovation

Public Procurement

Conclusion

Questions for Review and Discussion

References

Case 17–1
Randall Corporation

**THE RANDALL CONSULTING
PROJECT**

SUPPLY METRICS

EXHIBIT 1

Executive Level Metrics	Functional Level Metrics
<ul style="list-style-type: none">• Number of suppliers representing 80% of spend.• Percentage of total dollar spend on enterprise contracts.• Percentage of total spend through e-business system.• Cost reduction target.	<ul style="list-style-type: none">• Total number of suppliers.• E-business cost per transaction.• Number of transactions per employee in the supply organization.• Percentage of dollar spend through e-auctions.• Percentage of first-time quality acceptance of parts shipped from suppliers.• Health of the supply base.

Case 17–2

Fairview School Board

THE SCHOOL BOARD

THE DISTRIBUTION CENTER

SUPPLY MANAGEMENT

JIM KNOX'S PLAN

Case 17–3

Tanton Foods

Case Index

Subject Index

