

Colin Scott • Henriette Lundgren •
Paul Thompson

Guide to Supply Chain Management

 Springer

Foreword

This guide is a really useful reminder of what good practice is and how it should be applied within supply chain management. The book is relevant for students of supply chain management and professional practitioners alike.

The key aspects of supply chain are laid out clearly – plan, source, make, deliver, and return. The book is well constructed in totality – and I can envisage revisiting specific chapters in isolation whilst constructing and delivering supply chain strategy.

This is the first book that I have come across that is focussed more upon the concepts underpinning the total supply chain rather than the physical execution of the supply chain. Its range is from forecasting, inventory management and cash through execution strategy and development. I would add it to my arsenal and recommend it to others.

The content is relevant; concepts are clearly explained and supported by case studies that bring the concepts to life. The language used is clear and contemporary, visualisations re-enforce the concepts well. The additional suggested reading at the end of each chapter offers an added opportunity to further develop understanding of specific elements of the supply chain.

Organisations operating on a global stage have to get this stuff right, both in process and physical terms: it is an essential element to delivering profitable growth. This book offers an invaluable guide to understanding the specific dynamics of your supply chain and the fundamentals underpinning it. It provides the framework for delivering a supply chain strategy based upon recognised best practice.

Chief Executive Officer
Dyson Limited
Wiltshire, Uk

Martin McCourt

Preface

Supply chain management is a fast-growing business. Over the last ten years, it has driven companies around the world to change structure and – maybe more importantly – the way they think about operating in a global environment. Everything we consume from the food we eat and the clothes we wear, to the cars we drive, is configured from components that have travelled from different corners of the world. As consumers request high-quality products at lower cost, supply chain management has become as critical as sales, marketing and finance in today’s organisations.

Companies that produce and move products are finding it more and more difficult to make themselves unique or different from the competition, where success is evermore difficult to achieve. As a consequence, releasing opportunities in supply chains is now, as ever, the goal to beat competition – and provide better service at lower cost.

During our work as supply chain trainers for large multinational companies in various industries we have met professionals all over the world who are passionate about achieving these goals. This guide is designed to help professionals, students and everyone else with an interest in this topic to structure their thoughts and methodologies.

Business practitioners who work in supply chain management and those whose business functions interact with it will also have an interest in reading the guide. Students, whether studying at universities or in vocational training, will find this guide a comprehensive introduction to supply chain management. But also people working in other contexts, such as charity projects or professional industry bodies will find this text useful with its intuitive models and many practical examples.

In writing this guide, we have tried to connect with our readers by using simple and straightforward models. By including real-life examples and case studies of best practice, the guide aims to bring supply chain theory to life. The practical approach and format will enable readers to capitalise on the insights presented in the guide.

In preparing this book, we have drawn greatly on the thoughts and concepts of others. If we have omitted to give any credits where credits are due, we apologise

and hope that they will make contact to include in future editions. Learning is an interactive experience, so we welcome any feedback or ideas of how to improve this guide. After all, we have learned most from the people we worked with.

If you would like to get in touch with the authors, please email us: feedback@grangepartnership.com

Worcestershire, UK

Colin Scott
Henriette Lundgren
Paul Thompson

Contents

1	Introduction to Supply Chain Management	1
1.1	What Starts a Supply Chain?	1
1.2	A Functional View of Supply Chain Management	3
1.3	Supply Chain Players	4
1.4	Supply Chain Dynamics	6
2	Guide to Plan in Supply Chain Management	9
2.1	Inventory and Supply Chains	9
2.1.1	Different Types of Inventory	11
2.1.2	Cycle Stock	11
2.1.3	Safety Stock	13
2.1.4	Reducing Inventory	16
2.2	Demand and Supply Planning	16
2.2.1	Describing Demand	16
2.2.2	Forecasting Methods	20
2.2.3	Demand Planning Improvements	23
2.2.4	Two Models of Order Cycle Management	24
2.2.5	The Economic Order Quantity (EOQ)	26
2.3	Sales and Operations Planning	28
2.3.1	The S&OP Process	28
2.3.2	Guiding Principles for Successful S&OP Implementations	30
2.3.3	Customer Service Improvements Through S&OP	31
2.3.4	Why S&OP Implementations Fail	32
2.3.5	Different Planning Horizons	33
2.4	Case Study of Best Practice in Plan: Beiersdorf	34
2.5	Suggestions for Further Reading	36
	References	36

- 3 Guide to Source in Supply Chain Management** 37
 - 3.1 Introduction to Sourcing 37
 - 3.1.1 The Purchasing Process: Pre-order Steps 39
 - 3.1.2 The Purchasing Process: Post-order Steps 40
 - 3.1.3 Tactical Sourcing 41
 - 3.2 Strategic Sourcing Initiatives 42
 - 3.2.1 Category Sourcing 42
 - 3.2.2 Supplier Relationship Management 44
 - 3.3 Sourcing Management Tools 46
 - 3.3.1 Negotiation 46
 - 3.3.2 Cost Management 47
 - 3.4 Case Study of Best Practice in Source: Negotiations 49
 - 3.5 Suggestions for Further Reading 51
 - References 51

- 4 Guide to Make in Supply Chain Management** 53
 - 4.1 Introduction to Make 53
 - 4.1.1 From Craft to Mass Manufacturing 53
 - 4.1.2 Five Types of Manufacturing Process 54
 - 4.1.3 Manufacturing Planning and Control 57
 - 4.2 JIT Manufacturing Strategies 62
 - 4.2.1 JIT Philosophy 63
 - 4.2.2 Elements of JIT Manufacturing 65
 - 4.2.3 Limitations of JIT 66
 - 4.3 Lean Manufacturing 66
 - 4.3.1 TQM and Continuous Improvement 67
 - 4.3.2 Improving Performance Through Waste Reduction 68
 - 4.3.3 Tools to Improve Make Performance 69
 - 4.4 Case Study of Best Practice in Make: Unipart 72
 - 4.5 Suggestions for Further Reading 73
 - References 73

- 5 Guide to Deliver in Supply Chain Management** 75
 - 5.1 Introduction to Deliver 75
 - 5.1.1 Network Trade-Offs 77
 - 5.1.2 Facility Location Decisions 78
 - 5.1.3 Deliver Components 78
 - 5.2 Transport Management 79
 - 5.2.1 Air 80
 - 5.2.2 Road 81
 - 5.2.3 Rail 81
 - 5.2.4 Water 82
 - 5.2.5 Pipeline 82
 - 5.2.6 Intermodal Operations 83

- 5.3 Warehouse Management 84
 - 5.3.1 Warehouse Planning 85
 - 5.3.2 Warehouse Planning Process 85
 - 5.3.3 Warehouse Layout 86
- 5.4 Case Study of Best Practice in Deliver: DHL 87
- 5.5 Suggestions for Further Reading 89
- References 89

- 6 Guide to Return in Supply Chain Management 91**
 - 6.1 Introduction to Return 91
 - 6.1.1 Why Do Products Return? 93
 - 6.1.2 Drivers of Reverse Logistics 94
 - 6.1.3 Key Players in Reverse Logistics 98
 - 6.2 The Return Process 98
 - 6.2.1 Reverse Logistics Activities and Recovery Options 98
 - 6.2.2 Five Stages of the Product Return Process 99
 - 6.2.3 Different Return Business Models 101
 - 6.2.4 Product Recovery Issues 103
 - 6.3 Strategic Outlook in Returns 104
 - 6.3.1 Returns in Different Industry Sectors 104
 - 6.3.2 Improving Returns 106
 - 6.3.3 Golden Rules for Returns Management 107
 - 6.4 Case Study of Best Practice in Return: Wincanton 107
 - 6.5 Suggestions for Further Reading 109
 - References 109

- 7 Guide to Strategy in Supply Chain Management 111**
 - 7.1 Introduction to Corporate Strategy 111
 - 7.1.1 What is Corporate Strategy? 111
 - 7.1.2 What is Competitive Strategy? 112
 - 7.2 Achieving Strategic Alignment in Supply Chain Companies 113
 - 7.3 Concepts to Support Supply Chain Strategy Development 114
 - 7.3.1 Four Drivers of Supply Chain Performance 115
 - 7.3.2 Five Inventory Strategies 116
 - 7.3.3 Lean and Agile 119
 - 7.3.4 Postponement 120
 - 7.4 Case Study of Best Practice in Strategy: Wal-Mart 121
 - 7.5 Suggestions for Further Reading 122
 - References 123

- 8 Guide to People in Supply Chain Management 125**
 - 8.1 The Importance of People in Supply Chain Organisations 125
 - 8.1.1 Constructing a Learning and Development Strategy 126
 - 8.1.2 Linking Learning and Development to Supply Chain Strategies 127

- 8.1.3 Encouraging a Learning Culture 128
- 8.2 Team Development in Supply Chain Management 129
 - 8.2.1 Dimensions of Situational Leadership® 130
 - 8.2.2 Leadership and Team Development Levels 131
 - 8.2.3 Matching Development Level and Leadership Style 132
- 8.3 Individual Learning of Supply Chain Professionals 133
 - 8.3.1 Four Types of Learning Styles 134
 - 8.3.2 Learning in Supply Chain Management: Applying Different Styles 135
 - 8.3.3 Improving Performance Through Supply Chain Learning ... 137
- 8.4 Case Study of Best Practice in People: Supply Chain Academy 137
- 8.5 Suggestions for Further Reading 139
- References 139

- 9 Guide to Finance in Supply Chain Management 141**
 - 9.1 Introduction to Supply Chain Finance 141
 - 9.1.1 The Business Process 141
 - 9.1.2 Gearing 143
 - 9.1.3 Returns 143
 - 9.1.4 Hurdle Rates 143
 - 9.2 How Companies Cascade Financial Information 144
 - 9.2.1 Profit and Loss 144
 - 9.2.2 Balance Sheet 146
 - 9.2.3 Cash Flow 147
 - 9.3 How to Add Value and Improve Corporate Financial Performance 148
 - 9.3.1 Supply Chain Impact on ROCE 148
 - 9.3.2 Applying Six Supply Chain Performance Levers 149
 - 9.4 Case Study of Best Practice in Finance: NWF 152
 - 9.5 Suggestions for Further Reading 154
 - References 154

- 10 Guide to Customer Service in Supply Chain Management 155**
 - 10.1 Introduction to Customer Service 155
 - 10.1.1 Who Are Our Customers? 157
 - 10.1.2 Managing Variability to Improve Customer Service 158
 - 10.2 Managing Key Customers 160
 - 10.2.1 Customer Lifetime Value 161
 - 10.2.2 Customer Service Ambassadors 162
 - 10.3 Delivering Against Customer Needs 162
 - 10.3.1 Delivering the Core Promise 163
 - 10.3.2 Meeting and Exceeding Customer Expectations 163
 - 10.3.3 Service Recovery 165

- 10.4 Case Study of Best Practice in Customer Service: Unilever 166
- 10.5 Suggestions for Further Reading 168
- References 168

- 11 Guide to Outsourcing in Supply Chain Management 169**
 - 11.1 What is Outsourcing? 169
 - 11.1.1 Growth Drivers in Outsourcing 170
 - 11.1.2 Common Reasons for Outsourcing 170
 - 11.1.3 Outsourcing Concerns 171
 - 11.2 The Tendering Process of Outsourcing 171
 - 11.2.1 Step 1: Review Scope for Outsourcing
and Requirements 171
 - 11.2.2 Step 2: Identify Potential Service Providers 173
 - 11.2.3 Step 3: Produce Request for Information and Shortlist ... 174
 - 11.2.4 Step 4: Prepare and Issue the Request for Quotation 174
 - 11.2.5 Step 5: Assess the Tenders 175
 - 11.2.6 Step 6: Select Contract and Assess Risk 175
 - 11.2.7 Step 7: Determine Contract 175
 - 11.2.8 Step 8: Implement Contract 177
 - 11.2.9 Step 9: Manage Ongoing Relationship 177
 - 11.3 Improved Service Through Better 3PL Management 177
 - 11.3.1 Disputes: Why Outsourcing Relationships Fail 178
 - 11.3.2 Managing Expectations 178
 - 11.3.3 Managing the Relationship 179
 - 11.4 Case Study of Best Practice in Outsourcing:
Hi-Tech Industry 180
 - 11.5 Suggestions for Further Reading 181
 - References 182

- About the Authors 183**

- Index 185**