

Preface

Welcome to the first edition of *The Supply Chain Yearbook*, a resource designed to help you stay current with this rapidly changing area of management practices. This book was developed for two fundamental reasons:

1. To provide on an annual basis current information on the most useful ideas, techniques, and case studies in the field of supply chain management.
2. To serve as an annually updated and revised reference tool on publications, Web sites, organizations, and other information that will help you to apply supply chain management practices efficiently and effectively.

We set four goals for ourselves in developing this book. We wanted a book that would provide fast access to sources of information that would help you be more effective. To do that, we concluded that we had to deal with four requirements.

Create a Clearinghouse. There is much coming out in this field, and with the advent of electronic commerce, it is rapidly changing. So the publisher and editors saw the need for an accessible “clearinghouse” to which people with various roles and responsibilities in very different organizations could turn as a starting place to deepen their knowledge about this field and keep up with new material. We designed *The Supply Chain Yearbook* to be that clearinghouse. It brings together in one place a wide selection of articles from magazines and journals directly or indirectly related to this field. We wanted to save you the time of finding what might be useful to you in performing your job and in applying purchasing and supply management practices, so we put these publications in one convenient compendium.

Emphasize New Practices. For much of the past, managing the supply chain was limited in scope, seen as a staff position to service line departments. It was often focused on transactions rather than relationships. That’s changed now, and one of the purposes of this book is to help you better understand how this field is evolving. To that end, we have sought articles that give a clear understanding of the processes and practices that make up supply chain management.

Develop an Authoritative Review. Yet another goal for *The Supply Chain Yearbook* is to contribute to clearer thinking about the nature and application of supply chain manage-

ment such that we can bridge theory and practice. The field of supply chain management is broadly defined and takes in many different strategic thrusts. We hope to help provide food for thought for the people who are deeply involved in the day-to-day activities that help organizations deliver the goods to customers.

Create a Resource of Lasting Value. Because it is revised annually, *The Supply Chain Yearbook* focuses mainly on what has appeared in the year immediately preceding its publication. While currency is one of its strengths, we also intend for each edition to have lasting value. You will find material throughout the book that will continue to be applicable for many years as you go about applying purchasing and supply management practices in your daily work. You should be able to look at your collection of yearbooks and know that you are building a library of the best practices in the field of supply chain management. In short, we have succeeded if this is the first source you go to for information on purchasing and supply management.

Organization

To make it easy to find material, we have divided this yearbook into eight parts, with the supply chain management process as our organizing principle, with the last part providing reference material. Here's a brief overview of what you'll find.

Part One, Supply Chain Management Today, contains articles that give you a sense of the important issues today, ranging from "The Brave New World of Supply Chain Management" to "The Role of the Internet in Supply Chain Management."

Part Two, Supply Chain Management Planning, the first step in the SCM process, provides a variety of perspectives on effective planning, including background pieces, such as co-editor Ed Marien's "The Four Supply Chain Enablers" and the comprehensive review "The Manager's Guide to Supply Chain Management." A critical activity in planning is planning how much product is needed in the supply chain—from end-usage to demand and schedules of satisfying those needs throughout the supply chain. Ed Marien's article on "Demand Planning and Sales Forecasting: A Supply Chain Essential" presents an overview of how demands and forecasts should be reconciled in supply chains.

Part Three, Procurement and Supply Management Principles and Practices, looks at the issues involved in sourcing and purchasing the goods and services your company needs. An especially interesting article deals with Honda: "Balanced Sourcing the Honda Way." We also include several articles dealing with different perspectives on e-procurement.

Part Four, Supply Chain Logistics Fulfillment, the third step in the SCM process, provides a variety of articles on modern logistical practices as well as a look to the future in "Logistics in the 21st Century" by Steven Rabin. We've also included the thought piece "Seven Immutable Laws of Logistics" by C. John Langley, Jr.

Part Five, Supply Chain Execution, includes several articles that explain how you bring all the elements together, including a look at agility in the supply chain, using e-hubs, and a couple of case studies.

Part Six, Supply Chain Evaluation and Metrics, includes five articles selected to give you some insight into measuring supply chain performance. The articles provide a very good overview of metrics you can use and how to use them to improve performance. Among the selections is “What About Measuring Supply Chain Performance?” by Larry Lapide. It gives you a detailed review of all the current approaches to this important activity.

Part Seven, The Future of Supply Chain Management, includes three thoughtful pieces on the changes you can anticipate in managing your supply chain. Some of these are already taking place, as described, for example in the article “Saturn’s Supply Chain Innovation: High Value in After-Sales Service” excerpted from a recent issue of *Sloan Management Review*.

Part Eight, Supply Chain Management Resources, provides five different sections we think will make this yearbook an even more valuable tool. We include a directory of SC organizations, a directory of Web sites and more, a directory of publications dealing with SCM, a glossary of SC terms, and a calendar of events of interest to SC professionals taking place in 2001.

Criteria for Selection of Articles

We applied three criteria for selecting articles for The Purchasing & Supply Yearbook:

1. They must be current. Because this is an annual publication, part of its value comes from the timeliness of its content. Therefore, nearly all articles included were published in late 1999 or 2000.
2. They must be practical. We wanted articles that would help you solve problems and exploit modern purchasing and supply management practices efficiently and effectively. Articles selected represent the best thinking about how to make the most of supply chain management techniques. We want you to use this book, not just keep it on your shelf.
3. They must be authoritative. We’ve tried to choose articles that represent the best ideas in their class.

Using The Supply Chain Yearbook

This book is not meant to be read cover to cover. Peruse the table of contents and read those articles of most interest and relevance to your specific situation. Go back to it

from time to time for more ideas and examples. Here are some examples of how this yearbook might be used:

- ▶ A purchasing manager who wants to keep up with the field will find this a useful summary of the latest SC practices and how to start implementing them.
- ▶ An executive who wants to increase his or her awareness of the role of supply chain management in organizational success or the latest in B2B practices will find this a useful resource.
- ▶ A consultant might use it for keeping up with the latest thinking in the area of supply chain management.
- ▶ A student who is entering this field or is working toward certification will find this a valuable resource for better understanding this growing field and learning about sources for additional study.

Our Vision for the Book

We envision The Supply Chain Yearbook as the first source to use whenever you have a question or problem that involves issues surrounding supply chain management. We want this to be a problem-solving, practical resource for you. If you can't find a possible solution here, we intend for it to guide you to other sources where you can find help. We've developed this book to serve as an evolving documentation of changes in the field of purchasing management, so it will change over time as the field evolves. However, we designed it to help people to understand and even shape these changes.

Feedback from You

We want this book to meet your need for sound, current information on supply chain management tools and techniques. What do you think of it? How can we improve it next year? We invite your feedback. There are three ways to contact us:

Write to us c/o McGraw-Hill, 1333 Burr Ridge Parkway, Burr Ridge, IL 60521 or by e-mail to jwoods@cwpub.com. We look forward to hearing what you have to say and to serving your needs for many editions to come.

Acknowledgments

This book was a major undertaking and would not have been possible without the help and support of many people. At McGraw-Hill, Catherine Dassopoulos and Jeffrey Krames came up with the idea of the yearbook and provided the support needed to complete it in a timely manner. Robert Magnan and Nancy Woods of CWL Publishing Enterprises have been a crucial part of our team in completing this book.

We'd also like to thank the many editors of various publications who allowed us to reprint the articles you see here. We'd especially like to mention Francis Quinn, editor *Supply Chain Management Review* for allowing us to reprint various articles from that journal and to Barry Jacobs at Montgomery Research for allowing us to reprint Larry Lapide's article on measuring supply chain performance.

Finally, we want to thank you who have purchased this book. We hope that it lives up to your expectations and that you will take the time to give us feedback so that we can continue to make it useful to you in future editions.

John Woods
Ed Marien

Introduction to Supply Chain Management

Before you launch into this yearbook we wanted to give you a brief overview of our approach to supply chain management. Let's start with two definitions. Hau L. Lee, a renowned researcher and writer in this field, defines it this way:

Supply chain management (SCM) is the integration of material, information, and financial flows in a network of companies or organizations that make and deliver of products and services from the source to the consumers.

Ed Marien defines it in slightly broader terms:

Supply chain management is providing earth to earth movement of products to ultimate consumers/users, including the sustainability of the environment.

From this perspective, SCM is all the activities that start with the exploration for and extraction of raw materials from the earth through what happens to them in the environment when they're no longer of use. (See Ed's article on reverse logistics in Part Four of this yearbook for more on this).

Figure 1 provides a graphical overview of the modern supply chain and the flows within it. At each level, value is being added (or should be, to be viable). Let's review this figure briefly. At the "source" level, we have illustrated two tiers of suppliers to manufacturers, for example (1) raw material extractors and (2) processors. Of course, they are usually are more tiers than this at the sourcing level, but for practical management purposes, most companies are concerned with only two to three tiers. We then proceed to the "make" level where manufacturers use the materials they've procured to create goods for their customers. These flow to the "deliver" level of distributors, dealers, retailers, and so on for distribution to final consumers. That flow runs from source to deliver with the final output being "whole goods."

At the same time, we have other flows going on. Information flows up and down to reduce waste and inefficiencies that come from people taking action without enough information about the needs and actions of others in the chain. Cash in the supply chain moves

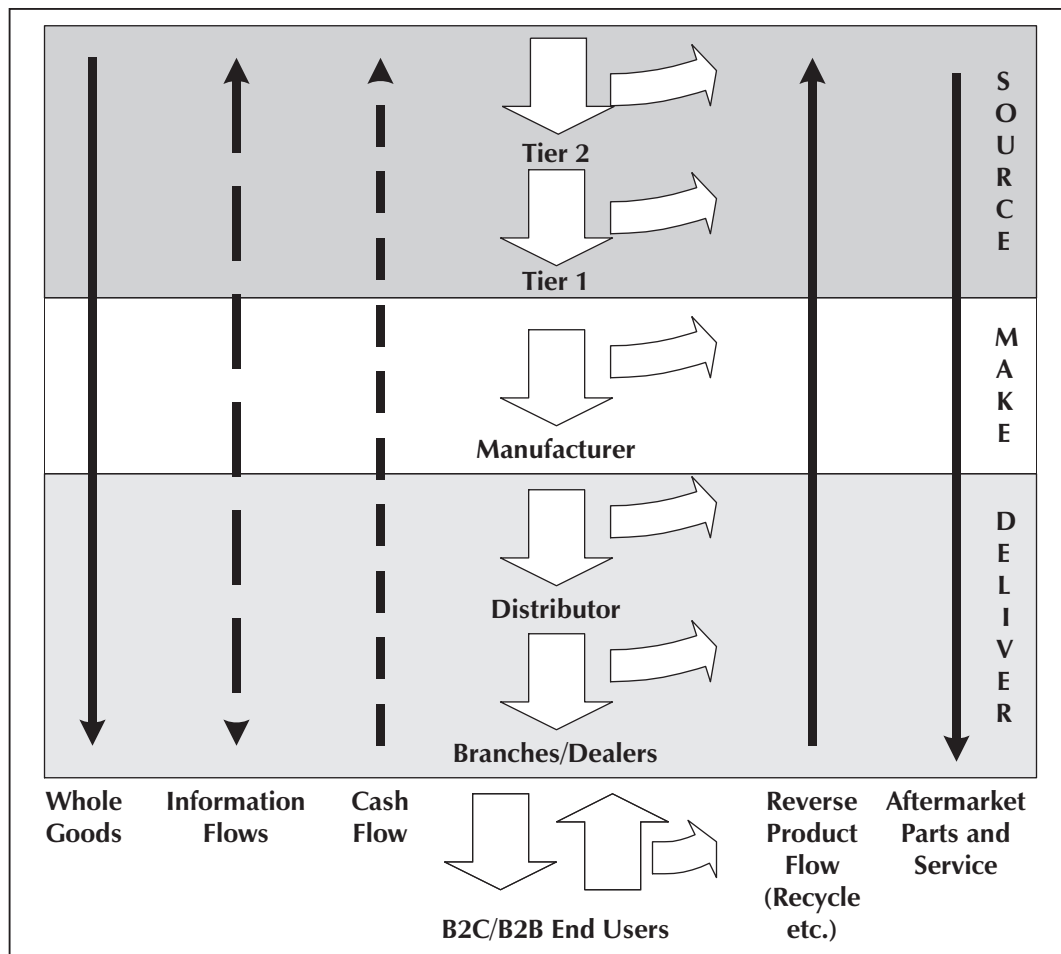


Figure 1. A model of the supply chain

in the opposite direction, from final consumer to source. There's also another reverse flow at every level, with materials going into recycling, reuse, and so on, represented by the curved arrows on the right side of the figure. Finally, there is a supply chain at work to provide aftermarket parts and services to those who have purchased the original whole goods.

This is a lot to get hold of, but this kind of model of the supply chain and the concerns it suggests are at the heart of modern supply chain management and have driven the selection of articles you'll find in this yearbook.

Managing the supply chain can be seen as a *process*, and, as noted in the preface, it is this process that has served as the organizational framework for this yearbook. Figure 2 provides a way to envision this process and the concerns of each step. This figure also rep-

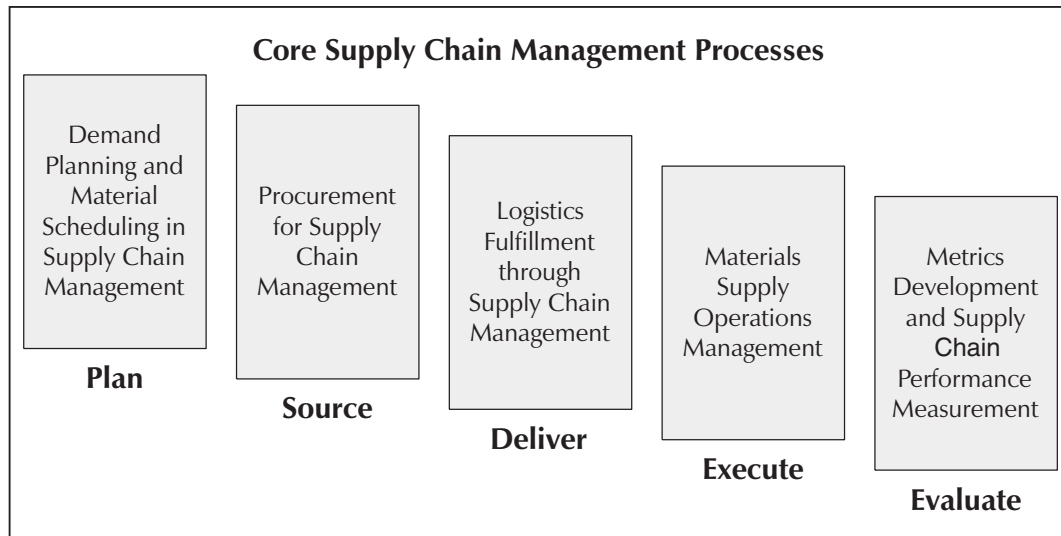


Figure 2. The supply chain management process

resents the middle five parts of this book: *plan*, *source* (or procure), *deliver* (or logistics fulfillment), *execute*, and *evaluate*. Our goal is to provides you with many current and insightful articles on how you can become a more efficient and effective manager in each part of this supply chain management process.