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The Supply Is Changing

Andrew Ruppel, Feature Editor

Operations management continues to develop as new solutions for old problems come forth (though not necessarily with the preferred speed for those affected). Two prominent stages in this on-going development are associated with the shorthand labels of TQM and JIT. In case you've forgotten, TQM tackles quality and JIT jumps all over excess inventory. There's a new label on the block: SCM, Supply Chain Management.

Each of the three labels above, of course, represents more than just what their individual letters stand for. Each label represents a look beyond the factory floor, sweeping in ever widening circles downstream and upstream of the basic production activity as firms recognize the need to entrust and enfold suppliers and customers into their planning and control efforts. The linkages between and among channel participants are being given much more explicit recognition and weight. The vision of these linkages as part of a larger, tightly linked *supply chain* has thus become a prominent metaphor and certainly a convenient label. Not surprisingly, new textbooks and other materials reflect this prominence. Here are some of them.



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Operations Management for Competitive Advantage (9th ed.) By Chase, Aquilano, & Jacobs

McGraw-Hill, 2001,
763 pages
www.mhhe.com

THE LATEST EDITION OF THIS VENERABLE TEXT adds a chapter (about midway in the book) on supply chain strategy and re-groups others under two new section headings: Supply Chain Design, and Planning and Controlling the Supply Chain. Among the ancillaries offered by the authors and publisher is an Internet version of the Beer Game—a well-know exercise among SCM practitioners for demonstrating the escalation of forecasted demand variation as one moves upstream from the final customer. A timely feature of this text is a chapter on operation consulting and re-engineering—a nice inclusion in light of its significant use by consultants in the SCM field and the increasing use of talented undergraduates by consulting firms.



Integrated Operations Management: Adding Value for Customers By Hanna and Newman

Prentice-Hall, 2001,
753+ pages
www.prenhall.com

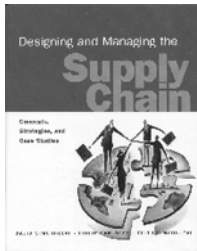
THESE AUTHORS OPT FOR AN EARLY PLACEMENT of supply chain coverage in their text: Chapter 2 deals with supply chain strategy and is placed *ahead* of the chapter on operations strategy. Two other chapters are provided on SCM—one on building global supply chains and another on supply chain coordination. The former chapter is woefully short on international examples, however. The latter focuses on master scheduling and inventory decisions mainly within the production facility; coordination beyond the firm is not covered as adequately as the chapter title would imply. Still, this is a solid introductory text that attractively and effectively presents operations management basics.



Production & Operations Analysis (4th ed.)

By Steven Nahmais
McGraw-Hill, 2001,
810 pages
www.mhhe.com

THE ADDITION OF A SUPPLY CHAIN MANAGEMENT chapter is among the updates to this standard text. Preceding the supply chain management chapter are two chapters on inventory—which, of course, is at the life-blood of a supply chain. (Whether it's standing still or moving *myu rapidamente* to the next node, it is inventory that consumes the attention of the supply chain manager.) Excel appears in the supply chain chapter in connection with solutions of the transportation method. Linear programming via Excel is also provided in a supplement to the chapter on aggregate planning.

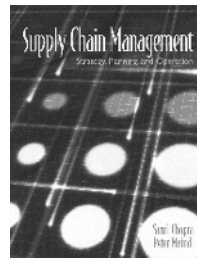


Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies

By Simchi-Levi, Kaminsky, and Simchi-Levi
McGraw-Hill, 2001,
321 pages
www.mhhe.com

THIS TEXT IS ORIENTED TO MBA AND PRACTITIONERS audiences and is about half the length of the previous two—for the obvious reasons that it does not encompass the full realm of production-operations management. It employs real-company cases, such as the well-known H-P Desk Jet case (which deals with postponement of product customization) and the Barilla Pasta Company case. Cases come at the beginning of each of the 11 chapters and so set the reader up for the concepts and approaches subsequently discussed. The authors also make the Beer Game available, but in an enhanced, computerized form on CD, along with a game that simulates the risk pooling opportunities in using a centralized inventory for a set of retailers. The quantitative coverage is compressed and some of the equations have an air of “mys-

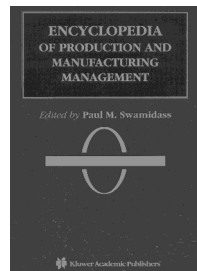
tery math” about them. Nevertheless, the book has drawn praise in several quarters for its realism and learning value.



Supply Chain Management: Strategy, Planning, and Operation

By Chopra and Meindl
Prentice-Hall, 2001,
457 pages
www.prenhall.com

THIS TEXT IS MORE MANAGEMENT-SCIENCE ORIENTED than the others considered here are. Its 15 chapters are structured within six sections, the major ones dealing with the classic topics of demand forecasting, inventory management, and transportation. Excel is effectively utilized in the solution examples of well-known problem types: exponential smoothed forecasts, aggregate planning, facility location, and inventory simulation. Conclusions from the various analyses are helpfully highlighted throughout the book as “Key Points.” Information technology is, of course, covered as a key driver of supply chain strategy, especially in the chapter on e-business. There is also a chapter on the financial evaluation of supply chain decisions, that offers two very extended decision-tree examples. Developed from course materials at the Kellogg School, this is a well organized and presented, “meaty” book that will appeal to practitioners as well as to academics.

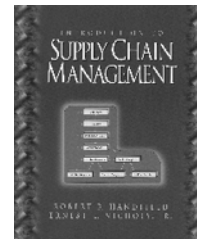


Encyclopedia of Production and Manufacturing Management

By Paul Swamidass, ed.
Kluwer, 2000,
979 pages
www.amazon.com

THERE ARE OVER 1,100 ENTRIES IN THIS THICK VOLUME, approximately 100 of which are lengthy articles covering classic and contemporary topics in POM. Of these, there are three articles directly addressing supply-chain management issues: two by Hokey Min on the Bullwhip Effect, and on EDI, plus Stanley Fawcett’s article on integration in the supply chain. Of course, there are other articles in the ency-

clopedia that relate directly to SCM, e.g., logistics, facilities location, purchasing, and supplier partnerships. There is even a short entry on the “Lean Supply Chain.” An extensive bibliography (over 100 items) on Supply Chain and Logistics appears in an appendix. Another nice feature is an index of company examples. Most of the coverage is aimed at POM practitioners and students (especially individuals studying for APICS exams and the like), but the hefty price tag makes it unlikely that many in that audience will buy a personal copy.



Introduction to Supply Chain Management

By Handfield and Nichols
Prentice-Hall, 1999, 183 pages
www.prenhall.com

THOUGH NOT A RECENT RELEASE, it is worth mentioning this slim paperback because it provides a short-course type overview of SCM. It contains six chapters, one of which is a set of five general case studies. It emphasizes the integration of information flows along with the material flows and discusses what the associated management challenges are to achieving that integration.

The Supply Chain Council

www.supply-chain.org
FORMED IN 1996-97, this is a not-for-profit international organization of over 400 companies and over 650 members looking to exchange information on SCM practices.

Procurement and Supply-chain Benchmarking Association

www.pasba.com
A TRADE GROUP WHOSE OBVIOUS PURPOSE IS TO COMPILE and exchange benchmarking practices and data in the field of procurement and supply chains. The Web site provides a useful compilation of links by industry and by process.

Council of Logistics Management

www.clm1.org
Although its approximately 15,000 members are mainly practitioners, CLM strongly supports logistics education through sponsoring an academic journal, providing scholarships and arranging internships, and other activities. ■