BOOK REVIEW

In Real Time: Managing the New Supply Chain
Reviewed by Ned Kock, Texas A&M International University, USA, Editor-in-Chief and Ruth Chatelain-Jardón, Texas A&M University, USA

In Real Time: Managing the New Supply Chain
By Sandor Boyson, Lisa H. Harrington, Thomas M. Corsi
Praeger, 2004, 168 pages

E-collaboration often is associated with technologies that support electronic communication and that are used to enable virtual group meetings in a geographically distributed and (sometimes) time-disconnected manner (Kock, 2005). Yet, e-collaboration technologies support significantly more group-related activities than virtual meetings. Among the activities supported by e-collaboration technologies are those in connection with the coordination of production and delivery of goods and services involving multiple organizations (Kock, 2005b), which are often referred to as supply chain management processes.

The growing importance that the topic of supply chain management has received lately arguably is due to the key role that it can play as a competitive weapon for any company that is able to manage it effectively and efficiently. As with many technology-based competitiveness enhancers, using supply chain management effectively and efficiently is easier said than done. According to Coyle et al. (2003), the “supply chain perspective is very dynamic and provides an opportunity to reduce the cost of doing business and improve customer service for many companies. At the same time it is not easy to implement” (p. 20).

While the literature on supply chain management is certainly not small and spans many years, there are not many volumes that effectively address supply chain issues in the new environment provided by the Internet. This is a gap that the book In Real Time: Managing the New Supply Chain tries to fill, and it succeeds in doing so. The book’s co-authors — Sandor Boyson, Lisa H. Harrington, and Thomas M. Corsi — are all affiliated
with the Supply Chain Management Center in the Robert H. Smith School of Business at the University of Maryland.

The book is organized into eight chapters. Apparently, all of the chapters have been written by the co-authors (Boyson, Harrington, and Corsi) with exception of one — Chapter 6 — which was written by external contributors Alexander Verbraeck and Rogier Van der Hee.

Chapter 1 introduces supply chain management’s importance and its impact on an organization’s overall performance. It also briefly justifies the need for creating information technology architectures that can support what the authors call real-time supply chain management, an idea that gravitates around the ability to closely integrate the needs of producers and suppliers electronically and with minimal time delays.

Chapter 2 draws attention to one of the most common and complicated challenges that a company is likely to face in its efforts to build an effective supply chain: establishing collaborative relationships with customers and suppliers. Business relationships involving heavy collaboration often require changes in traditional business practices, especially in real-time supply chain operations, where information often must be exchanged among all the business partners involved in the production and delivery of goods and services. Here, the authors introduce a simple yet revolutionary supply chain management idea called the Internet mega-portal, whose implementation the authors are quick to admit is a few years down the road. This is the idea around which most of the book revolves.

Chapter 3 is made up of two main parts. The first part describes in more detail the technological underpinnings of the Internet mega-portal, with emphasis on its main structural elements. Here, the Internet mega-portal is presented as a succession of layers (called presentation, integration, application, sensor-grid, and exception conferencing layers), each comprising a specific set of supply chain management functions. In the second part of Chapter 3, the supply chain management processes and functions that benefit from the Internet mega-portal’s implementation are discussed, with emphasis placed on workflow automation, collaborative planning and forecasting, asset management, real-time event management, and overall decision support and supply chain control.

Chapter 4 places particular emphasis on the need for timely information so that real-time supply chain management can take place effectively. The background, present, and future trends of several software tools, whose main objective is to collect and manage real-time data, are discussed in some depth, with several illustrative examples being used. Among the software tools discussed are enterprise resource planning (often referred to by the acronym ERP), warehouse management, labor management, transportation management, and international trade logistics systems.

The longest chapter in the book (Chapter 5) discusses a theme that was addressed briefly earlier in the book — the challenge that supply chain-oriented
collaboration represents for most companies. In Chapter 5, the authors focus mainly on the collaborative relationships beyond the single organization. A case study about Superdrug, a UK-based health and beauty products retailer, serves as an illustrative example of the key issues that organizations are likely to face when trying to successfully implement supply chain-oriented collaboration.

Among the key challenges that supply chain managers have to address is the need to reduce a supply chain’s complexity to a manageable level. Many software tools have been developed with this challenge in mind, but it is difficult to find books that present a meaningful discussion of those tools from a practitioner’s point of view. One of the most technical chapters of the book, Chapter 6, fills that void. Chapter 6 presents several supply chain modeling and simulation tools that serve not only as visualization aids but also as decision-making tools for supply chain managers.

Chapter 7 brings together in a coherent way many of the ideas explored in previous chapters. This chapter builds heavily on a case study, where the Office of the Secretary of Defense sponsored a pilot project to implement the Internet mega-portal in order to improve supply chain management in defense-related activities. Chapter 7 provides the reader with a hands-on and practice-based overview of all of the main aspects involved in actually managing a reasonably complex supply chain.

The last chapter, Chapter 8, is a relatively short one, taking up only six pages. It essentially lists the benefits that the implementation of the Internet mega-portal is likely to bring to organizations and discusses the challenges that this tool still needs to overcome in order to be used successfully in practice. One important issue that is mentioned briefly in this chapter is business process change, both of a radical and incremental nature, in connection with supply chains enabled by the Internet mega-portal.

A comprehensive list of enterprise resource planning systems’ developers is made available in the Appendix. For each company, this developer’s guide contains the name of the company that developed the enterprise resource planning system, the market that is targeted by the system, and a brief description of the company.

A major strength of this book is the hands-on approach that it takes in discussing key conceptual issues. It is in Chapter 1 that we first experience a writing approach through which concepts are defined through examples grounded in hands-on industry practice, which greatly enhances the readability of the text and which is maintained throughout the book. For example, the authors illustrate the concept or real-time supply chain with the following example on page 1 of the book:

A customer service representative in Atlanta is reviewing an incoming order over the Web. … The representative clicks the “search inventory” icon. Immediately, a software agent interrogates the global database, which includes inventories not only in the company’s own warehouses across the
United States but also in the warehouses of its supply chain partners in Europe and Asia. The software agent locates the requested products, calculates the guaranteed lead time to source and assemble these items, and determines the most optimal transport route to the customer’s site. Elapsed time to execute this process: three seconds.

Another strength of this book is that it pioneers the presentation of a new approach to supply chain management, which is centered on the Internet mega-portal concept. Arguably, this has not been covered as extensively before in the supply chain management literature. The reader may find discussions that touch upon several of the facets of the Internet mega-portal in other books, but this book is probably the first to present that concept and the several elements that make it up in one coherent and integrated piece.

One of the weaknesses of this book is that, at times, it is broad and somewhat shallow in the discussion of key topics. Some issues could have been discussed in more depth. For example, supply chains using the Internet mega-portal as their infrastructure will likely involve a great deal of e-collaboration, not the least for continuous improvement of the many subprocesses that make up their parent supply chain meta-process. That continuous improvement is likely to build heavily on e-collaboration technologies, which previous research suggests is likely to require the use of new approaches for business process improvement (Kock, 2005). This is an important issue that the authors hint at but do not develop enough to allow reader practitioners to understand some of the key challenges ahead of them.

This weakness is one that easily can be addressed in future editions of the book, essentially by adding material to the current version of the book. The book’s current structure, which is very good, will probably make that a relatively easy task. Another weakness of the book, which would be easy to address in further editions, is a minor one, but it nevertheless affects the book’s readability. A number of new concepts and acronyms are introduced in the book. In fact, for a book of its size, In Real Time introduces quite a few. Most readers are likely to forget what some of those concepts and acronyms mean as they progress through the book and may find themselves having to reread portions of the book in search for the meaning of those concepts and acronyms. Given that, the book could benefit greatly from a glossary with definitions of key terms and acronyms.

The book’s strengths clearly outweigh its weaknesses and make it a required reading for managers and professionals interested in getting a look at the future of supply chain management in the Internet age. The book’s reasonable price and interesting real-world examples also make it a good source of readings that could be used in graduate and senior undergraduate courses addressing supply chain management issues.
REFERENCES


Ruth Chatelain-Jardón is a PhD student in the Department of MIS and Decision Science at Texas A&M International University. She holds degrees in international trade (BBA and MBA), international logistics (MS), and management information systems (MS). Her research interests include knowledge transfer, e-collaboration, and business process improvement.