Supply Chain Network Design: Applying Optimization And Analytics To The Global Supply Chain (FT Press Operations Management)
Synopsis

Using strategic supply chain network design, companies can achieve dramatic savings from their supply chains. Now, experts at IBM and Northwestern University have brought together both the rigorous principles and the practical applications you need to master. You’ll learn how to use supply chain network design to select the right number, location, territory, and size of warehouses, plants, and production lines; and optimize the flow of all products through your supply chain even if extends around the globe. The authors present better ways to decide what to manufacture internally, where to make these products, which products to outsource, and which suppliers to use. They guide you in more effectively managing tradeoffs such as cost vs. service level, improving operational decision-making by integrating analytics throughout supply chain management; and re-optimizing regularly for even greater savings. Supply Chain Network Design combines best practices, the latest methods in optimization and analytics, and cutting-edge case studies: everything you need to maximize the value of supply chain network design. For all supply chain executives, managers, strategists, and analysts; and for all students, instructors, and researchers in advanced supply chain management and/or logistics courses.

Book Information

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Customer Reviews

This book is very practical and informative. It teaches you to think strategically about supply chain,
which you can more or less apply to other areas of operations research. It does not really teach you how to solve the optimization problems using the hardcore math and complex algorithms, but, at least in my opinion, it is more geared toward helping real-world managers tackle how to design a supply chain and the various issues that need to be taken into consideration. This book is for practitioners, not really for graduate students who need to see all the math associated with solving an optimization problem. Highly recommended for OR practitioners!

This is an excellent book on Supply Chain Network Design. The authors provide an excellent introduction to modelling and design strategies. Unlike many books from the FT press the authors do not shy away from mathematics and details and walk you through case studies and analysis - so this book will be useful for someone who wants to put into practice what they will learn from the book. The book has a support resources provide via a web site that contains errata, links to other useful information, as well as downloads of the models, more details on for the case studies, spreadsheets and extra case studies not in the book. This means that the book is not padded with long tables of data and excessive repetition and details that could distract from the main points in the flow of the text. I also liked the end-of-chapter questions as they allowed me to reflect on the material and check my understanding. This is an excellent book that belongs on the shelf of anyone interested in this subject.

Supply Chain Network Design is about applying quantitative analysis in order to optimize a firm’s supply chain. What’s a supply chain? Basically, it’s how resources flow in and out of your organization. It’s pretty much everything involved. That means warehouse physical distances, vehicles to transport supplies and finished products, personnel to operate/load/unload, etc. By applying careful analytics, one can see areas of possible optimization where you might not normally simply by pulling out a map and a ruler. This would be a decent textbook for a course taught on this subject at the undergraduate level (possibly master’s level, I would leave that up to the individual faculty member teaching it to evaluate and you will definitely want to enhance the course with current events and possibly the literature on supply chains). Specifically, it would make a good textbook for a condensed class taught during a break as it is not as long and drawn out as other textbooks. You may want to be prepared to supplement it a bit as it is very specific.

I thought it was going to be a little more anecdotal and perhaps an easier read. I got a lot of this stuff when I was in business school at Carnegie Mellon. Wanted a real life follow on to the concepts but
The whole book is based in the concept of trade-offs in a supply chain as a main design guide, instead of detailed technical considerations regarding network theory. This book is perfect for people designing a supply chain from a business perspective and draws a clear methodology to accomplish this task. Very recommended.

I've done a lot of network-design work and consider myself to be an expert. Had I had this book from the start, I may have got to expert status a lot faster. Note that while the authors (all from IBM) have extensive experience building software products to help you do supply-chain network optimization this is not a sales brochure for LogicNet. They lead you, step by step through the process, adding in complexity one layer at a time, until you have a very sophisticated model. Managers who hope to become better buyers/consumers of network-design projects may want to skip the math sections and can do so without missing key points. For analysts actively involved in building optimization-models the mathematical formulations are extremely helpful. Even if you choose to build models with a software package that tries to hide the math from you, the guidance around data and the art of modeling is worth the price and the time to read it.

This is a very well researched and written book. It would be a good tool for any organization to use when changes are needed.

Covers all core areas. Not sure if the worked examples are active on the website, referenced at the end of the chapter summary.

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