

The Supply Chain Professional

Basic Concepts and Analytics

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This book provides an intensive overview of supply chain management including demand management, and manufacturing and distribution, along with quantitative models used in managing the supply chain.

Supply chain management is the process of planning, implementing, and controlling the efficient, cost-effective flow and storage of raw materials, in-process inventory, finished goods, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements.

The book emphasizes supply chain system design and planning, and provides an introduction to the field of supply chain management through developing an understanding of the managerial issues and challenges of developing and implementing a firm's supply chain strategy. The objective is to familiarize students with the types of decisions involved in designing and controlling material flow in the supply chain system, along with exposing them to a sample of tools available for assisting in making these decisions. The book introduces and applies a number of recently discussed concepts (such as supplier partnerships, supply chain strategy, demand planning, etc.) that have significant implications on a firm's competitiveness. Case studies and applications are included to reinforce the concepts.

Students successfully completing a course using this book will achieve the following:

1. Understand the elements of a supply chain management system (including the in- and outbound flows of material and information) and be able to identify the strategic decisions that go into the design, implementation, and modification of such a system;
2. Apply relevant conceptual and analytical tools (especially spreadsheet modeling) that support strategic supply chain design and implementation in a range of areas:

Supply chain design (mapping and improving supply chains)

Financial impacts of supply chain decisions

Capacity planning, process analysis, and impact of variability on performance

Demand planning (understanding customer demand and forecasting)

Inventory management (understanding the role of inventory in both a supply chain and a manufacturing environment)

Managing customer and supplier relationships

Supply chain strategy and the role of logistics in supply chains

Information exchange in supply chains

Supply chain planning and control


3. Analyze cases with ill-structured supply chain problems and apply sound reasoning in determining appropriate recommendations/action plans

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AU: Is more manuscript to come? Specifically, Appendix B and Appendix C?