

Chapter 2

Green Supply Chain Design and Management

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Increasing environmental awareness has resulted in great interest in supply chain sustainability. Studies have shown that a large proportion of the carbon emission actually comes from the upstream and downstream members of the supply chain, so there is great need to access the greenness of a supply chain as a whole. For example, Wal-Mart found out that 90 % of their carbon emission comes from their suppliers. However, many activities in the supply chain are dependent and thus identifying the carbon emissions from each activity is difficult. To overcome those difficulties, we need to understand the important issues in green supply chains and the state-of-art research. In this talk, I will review various issues in green supply chain design and management and point out some research opportunities.

Author Biography

Prof. Dr. Max Shen obtained his Ph.D. in Industrial Engineering and Management Sciences from Northwestern University. He joined the department in July 2004. Before that he taught at the Industrial and Systems Engineering Department at the University of Florida. His primary research interests are in the general area of integrated supply chain design and management, and practical mechanism design. He has published more than 70 papers, and he is also an associate editor for Operations Research, Naval Research Logistics and Journal Omega, area editor for IIE Transactions, senior editor for Production and Operations Management.

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