

BOOK REVIEW

Logistics in the Forest Sector

Kim Sjöström, Editor

“Logistics: the planning and control of the flow of goods and materials through an organization or manufacturing process.”

Encarta World Dictionary

This book is a compendium of papers presented at the First World Symposium on Logistics in the Forest Sector, which was held in Helsinki in May 2000. Except for an introductory section produced by the editor, Kim Sjöström, the book is composed of individual papers from a diverse group of researchers and practitioners on a broad range of logistics topics, from management information systems to details of transporting finished wood products. The following presents a brief overview of the issues dealt with and of the overall quality of the book.

Forest Operations

Those papers that focused on logistics in forest operations were of greatest interest to the reviewers. Some particularly interesting ideas were presented in this area by Hecker *et al.*, Fotiou, Gustafson *et al.*, Karanta *et al.* and Palander. As well, the work by Karanta *et al.* on formulating potential constraint sets for the “Timber Transport Vehicle Routing Problem” makes a foundational contribution to modeling efforts in this area.

Mathematical Modelling

Some of the papers present mathematical models to support logistical decision-making. These models deal with optimizing harvesting decisions when linked to customer requirements and delivery issues (Gustafson and Larson), understanding spatial effects on transportation costs in wood procurement (Haartvelt and Fjeld) and extending a forest management planning model to include wood procurement (Haavardtun and Stolevik). Also, Karanta *et al.* provided a thoughtful description of constraint sets to augment classic vehicle routing models so that they deal realistically with timber transport. Data envelopment analysis is used by Fotiou to assess operational efficiency of sawmills and their wood procurement, and simulation (by Fogelholm) to analyse forecasting requirements in the paper industry. Road access and maintenance for harvesting operations, and value-added concepts of optimizing wood supply chains through optimized slashing were also described.

Transportation and Inventory

Not surprisingly, transportation planning receives a lot of attention in the papers. In addition to models that analyse transport issues in the forest and on land, Nordstrom deals with wood products handling in sea shipments, with attention to details of issues that affect product quality and worker safety. Kalpio presents an insurance perspective on increases of risk with increased warehousing. Other inventory analyses include balancing timber stocks with costs of holding inventory (Palander) and use of simulation in estimation of stock levels on total costs (Gallis).

Management Systems

For management systems aficionados, there are papers on cost accounting methods applied to outbound logistics in the paper industry, a discussion of opportunities to apply Just-In-Time strategies to supply chain management in the paper industry (Lehtonen and Holmström) and a review of Business Process Reengineering (BPR) and its application in wood deliveries and forest engineering (Heinimann). Michie *et al.* deal with a broader management context, presenting the concept of a database of world trade in forest products to help understand stocking, trade flows, regional trade balances. There is also a paper on customer perceptions of wood product quality (Kalafatis, Bricher).

Quality of Papers

There is a wide range in the quality of papers, with respect to originality, language use and scientific rigour. The presentations ranged from research – oriented to practitioner papers, and hence the scientific content varied widely. More rigorous scientific editing with respect to clarity of arguments and language usage could improve some papers, and a fuller reference set could be achieved by including work published under the guise of operations research or operations management. It was difficult not to note a Euro-centric bias in the references, which points to a disappointing lack of communication between researchers in North America and Europe. This problem also is evident in some North American publications.

The book could have been improved by the provision of a good definition of what topics should (and should not) be included within the scope of “logistics”, and how the study of logistics differs from operations research. Although a few papers did make reference to how their work fit into the context of logistics, it was disappointing not to see a paper that gave a good overview of the field

of logistics or its relationship to operations research.

Overall, the book is worth reading to provide a broad view of logistical issues in forestry. We expect that readers will find interesting papers in the collection.

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This book can be ordered from ECONPAP for 80 Euros (including 8% Finnish VAT) at the following address: Anjas 3 A33, 02230 Espoo, FINLAND. [Http://honeybee.helsinki.fi/logistics/book.htm](http://honeybee.helsinki.fi/logistics/book.htm). ISBN 952-91-1942-9. 295 pp. Bulk discounts. Orders will be mailed within five weeks of receipt of payment by the publisher.