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**Recent Developments in Transport Modelling – Lessons for the Freight Sector, Moshe Ben-Akiva, Hilde Meersman, Eddy Van De Voorde (Eds.). Emeralds Group Publishing Limited (2008). ISBN: 978-0-08045-119-0.**

Nicoleta S. Tipi

For a number of years modelling has played a significant role in improving the efficiency and effectiveness of many systems and processes in the area of logistics and transportation, however this still remains an area which presents considerable challenges.

Prof. Marvin L. Manheim questions how to “assess, discuss and present the strengths and weaknesses of analytical techniques and models such as the role and limitations of analysis are understood by all”. This indicates the complexity and at the same time the challenges that modelling presents for researchers and practitioners.

The book comprises three main parts and is divided into 14 chapters. Each of these chapters is individually written by different authors from USA, Canada, Belgium, Italy, Germany, UK, Switzerland, The Netherlands, Portugal and Korea. The editors provide a very good overview of the book contents in the first chapter by clearly highlighting the main areas covered.

The first part is an excellent evaluation of Prof. Marvin L. Manheim's work, which sets an agenda for researchers in the field of transport modelling for many years to come. The following two parts provide an evaluation of different modelling techniques used in freight transport from issues regarding freight demand simulation to measuring the value of time or evaluating the value of quality attributes in freight transport. Freight models and policy, the role of government policy as well as the opportunities and practices for intelligent freight transport systems form the topic for the last part of this book. The first part of this book is a good reference for new and experienced researchers in the field of modelling and freight transport modelling, and the second part details a selection of models, particular modelling techniques and some specific case studies.

Hilde Meersman and Eddy Van de Voorde provide an evaluation of the relationship between freight traffic and economic activities. This is followed by a multi-regional input–output model for freight demand simulation presented by Ennio Cascetta, Vittorio Marzano and Andrea Papola.

An aggregated–disaggregated–aggregated model for freight transport is introduced by Moshe Ben-Akiva and Gerald de Jong. The aggregated models are the production consumption flows model and the network model, where the claim for their level of aggregation is due to restrictions in data. The disaggregated model is presented as a logistics model which considers information such as shipment size and transport chain including mode choice for each leg of the transport at the level of the firm. This work demonstrates how a disaggregated model can be used in combination with aggregated models and provides some specific data from an application in Norway and Sweden.

The paper discussed by Moshe Ben-Akiva, Denis Bolduc and Jay Q. Park considers models which are designed to predict shippers' choice of mode more accurately and which aim to achieve minimum total logistics cost. Revealed preferences data was used from a market research survey collected in 1988 by a US railroad company which included 166 transportation managers for their initial model. They then further developed these models to include unobserved heterogeneity among the shippers and introduced new variables which measure the perception of service quality, which they then found produced better results. Additional improvements were found when revealed preferences data was combined with stated preferences data collected from the same survey.

Michel Beuthe, Christophe Bouffieux, Catherine Krier and Michel Mouchart evaluate the individual preferences of nine transport managers with four different types of models (such as conjoint analysis multi-criteria analysis, logit analysis and neural network model), aiming to obtain additional insight into the managers' decision making process. They concluded that cost is by far the main factor considered in the decision making process, followed by reliability, where frequency, time and loss are only important for some of the firms considered for their study.

Rico Maggi and Roman Rudel approach the value of quality attributes in freight transport by exemplifying this using an example from a specific Swiss freight market. This study shows that logistics managers consider punctuality and avoidance of damages to be more important than travel time savings.

Lorant A. Tavasszy focuses on the value of time in freight transport and identifies new opportunities for further research – these comprise issues present in the whole supply chain such as inventory and production related reorganisation effects. This chapter is looking to provide an answer to key questions such as how markets for freight and freight services will respond to changes in travel time and to what extent existing measurement approaches for the value of time can capture these responses and can be improved.

The last part of this book consists of three articles on freight models and policy. Roger Vickerman is looking to assess how models can be used in policymaking, but is also looking at how alternative policies can be incorporated in models. Jose M. Viegas analyses the role of Government policy towards rail freight transport and discusses issues regarding environmental impacts and congestion and EU policy in support of rail. In the last chapter, Cees J. Ruijgrok draws attention to the role of information and communication technology issues and presents some success factors of EMTS (a business unit from DHL) when collaborated systems that make extensive use of IT are used.

In summary this book provides a good selection of models and modelling procedures used in the freight transport industry, drawn from the large array of models present in the literature. The models considered here tend to deal with specific case studies, specific data or specific techniques, where for some cases the wider application appears limited and leaves room for questions and discussion.

It is a good reference text for researchers and professionals who specialise in the field of freight transport modelling and the first part of the book is also suitable for students studying transport and logistics subjects.