Editorial

Fouad Riane

Centre de Recherche en Gestion Industrielle,
Catholic University of Mons,
Louvain School of Management,
151, Chaussée de Binche, 7000 Mons, Belgium
E-mail: fouad.riane@fucam.ac.be

Jean-Pierre Campagne

Laboratoire LIESP,
INSA de Lyon,
19 avenue Jean Capelle,
69621 Villeurbanne cedex, Lyon, France
E-mail: jean-pierre.campagne@insa-lyon.fr

Biographical notes: Fouad Riane is a Professor of Production Management and Operations Research at the Louvain School of Management, Catholic University of Mons, Belgium. He holds a PhD Degree in Management Science. His areas of expertise include supply chain and logistics, production and inventory control, maintenance management and healthcare organisations.

Jean-Pierre Campagne is an electronics engineer from INSA Lyon. He got a PhD Degree in Computer Science and is Professor and Head of the Industrial Engineering Department in INSA Lyon as well as Head of LIESP research laboratory. His main research interests are *production management* and *logistic systems*.

Nowadays companies are evolving in a more networked economy. Thanks to the vertiginous advances in the development of information and communication technologies and under the fierce competition of global markets companies are transforming their production structures and rethinking their business architecture in order to streamline their processes.

New ways of doing business and managing supply chains are being developed. The objective of supply chain managers is to enable their firms to excel in the accomplishment of their essential processes and to collaborate with selected suppliers to outsource activities irrelevant to their core competencies. Organisations that optimise their supply chains can reduce costs and rationalise internal processes.

To reach this objective the traditional vertical integration is no longer sufficient for added value creation and for core-business well positioning. The challenge for supply chain managers is the multiple levels of integration required to optimise network effectiveness and efficiency. They should work with suppliers that could not only provide low-cost, high-quality and on time delivery but also involve cross-company planning and

serve customers' needs in the most appropriate way. This implies collaboration between actors, sharing of knowledge, and development of sustainable partnership relations.

These issues of supply chain management concern both academics and industrialists. The International conference on Information systems, Logistics and Supply Chain (ILS), organised on the 15th, 16th and 17th of May 2006 in Lyon, has addressed a broad range of topics related to supply network, logistics operations management, supply chain management and optimisation and information systems. These specific issues of global supply chain and logistics management was considered with the emphasis of information system development.

Participants had the possibility to discuss emerging industrial issues, to share common practices and recent research development and to identify research opportunities in the area of Supply Chain Management.

The *11 papers* published in this special edition of the journal were selected among the best contributions discussed at the ILS conference. Their contents are promising and present substantial advances in the research on the supply chain in a wide variety of contexts and applications.

The first paper of Raa, Aghezzaf and Dullaert deals with cyclic scheduling problems that arise in cyclic inventory routing. The authors present a mathematical model and come up with a best-fit insertion heuristic to find a minimal makespan schedule.

The second paper is written by Verstrepen, Cools, Cruijssen and Dullaert. It concerns a horizontal cooperation framework for logistics. The authors insist on the different phases of a typical life cycle of partnership. They present the drivers and the motivation for starting up a horizontal cooperation.

Viau, Trépanier and Baptiste address the integration of inventory and transportation decisions in the context of decentralised supply chains. They present a decision support system developed for logistics activities evaluation.

Brusset studies the problem of choosing transport contracts over multi period horizon. He considers multi period games where shippers and carriers have the choice between different types of contracts and where prices and demand are dependent exogenous stochastic processes.

In the fifth paper, Comelli, Féniès and Lemoine discuss the optimisation of cash flow and value sharing in the context of supply chain planning. They develop a mathematical model allowing the optimisation of cash flow over the whole supply chain. They present also a framework that integrates this model within the tactical production planning elaboration.

The sixth paper is written by Hintsa, Gutierrez, Wieser and Hameri. It covers the current works that address the supply chain security management in the scientific literature. The authors discuss the managerial implications of the security initiatives within supply chains.

Gruat La Forme, Botta-Genoulaz and Campagne present an analysis of the contribution of Advanced Planning and Scheduling systems to supply chain management. Based on academic and empirical studies, the authors highlight the importance of APS systems and their actual industrial use.

Lauras, Pingaud and Lamothe develop a methodology for local and collaborative processes diagnosis in the context of supply chain. The aim of their work is to model the supply chain's structure and to identify dysfunctions in order to deploy progress actions.

In their paper, Mekouache, Ounnar, Pujo and Giambiasi suggest another way to manage supply chains. They propose a holonic and multi criteria based approach for selforganised control and negotiation between actors within a supply chain.

Montoya-Torres, Campagne and Rodriguez study the implementation of global modelling framework for the operational behaviour evaluation and the productivity optimisation. They focus on internal logistics management and develop an efficient control policy for automated material handling systems.

The last paper – Di Martinelly, Riane and Guinet – considers the supply chain management in the particular context of healthcare systems. The authors propose a modelling approach that emphasises the performance dimension. They suggest a value model based on Porter and SCOR vision.

The guest editors would like to thank the authors for their valuable contributions reserved for this special issue and the reviewers for their precious referee work.

Special thanks go Professor Angappa Gunasekaran, IJLSM Editor, for his support and assistance in the preparation of this feature issue.