Electronic Supply Network Coordination in Intelligent and Dynamic Environments: Modeling and Implementation

Iraj Mahdavi  
*Mazandaran University of Science and Technology, Iran*

Shima Mohebbi  
*University of Tehran, Iran*

Namjae Cho  
*Hanyang University, Korea*
# Table of Contents

**Foreword** ............................................................................................................... xiii

**Preface** ................................................................................................................ xvi

**Acknowledgment** ............................................................................................... xxii

## Section 1
**Advances in Supply Network Coordination**

**Chapter 1**
Understanding Supply Network Coordination.......................................................... 1
   *Namjae Cho, Hanyang University, Korea*

**Chapter 2**
e-Business in Supply Chain Management ............................................................... 24
   *Claudia-Maria Wagner, Dublin Institute of Technology, Ireland*
   *Edward Sweeney, Dublin Institute of Technology, Ireland*

**Chapter 3**
Integrated Supply Chain Intelligence through Collaborative Planning, Analytics and Monitoring ........ 43
   *Nenad Stefanovic, University of Kragujevac, Serbia*
   *Dusan Stefanovic, University of Kragujevac, Serbia*
   *Bozidar Radenkovic, University of Belgrade, Serbia*

**Chapter 4**
A Content Analysis for Evaluating RFID Applications in Supply Network Management ................ 93
   *Maria Grazia Gnoni, Università del Salento, Italy*
   *Alessandra Rollo, Università del Salento, Italy*

**Chapter 5**
The Role of Information Technology in Supporting Supply Chain Coordination of Logistics Services Providers ......................................................................................................................... 113
   *Pietro Evangelista, IRAT-CNR & University of Naples Federico II, Italy*
Section 2
Modeling and Analysis of Supply Network Coordination

Chapter 6
Multi-Echelon Supply Chain Modeling with Dynamic Continuous Review Inventory Policy .......... 146
K. Narayana Rao, Govt. Polytechnic, India
K. Venkata Subbaiah, Andhra University, India

Chapter 7
Reverse Logistics Network Design Using Hybrid Genetic Algorithm and Simulated Annealing Methodology ........................................................................................................... 168
Gülfem Tuzkaya, Yıldız Technical University, Turkey
Bahadır Gülşün, Yıldız Technical University, Turkey
Ender Bildik, Yıldız Technical University, Turkey

Chapter 8
Fuzzy Electronic Supply Chain System: Customer Satisfaction and Logistic Aspects ............. 187
Hamed Fazlollahi Abad, Mazandaran University of Science and Technology, Iran
Hamed Hajmohammadi, Mazandaran University of Science and Technology, Iran
Iraj Mahdavi, Mazandaran University of Science and Technology, Iran
Nezam Mahdavi-Amiri, Sharif University of Technology, Iran
Amir Mohajeri, Mazandaran University of Science and Technology, Iran

Chapter 9
Modeling and Simulation of Partnership Network for an Intelligent Supply Chain ............. 202
Fouzia Ounnar, Aix Marseille University, France
Patrick Pujo, Aix Marseille University, France
Selma Limam Mansar, Carnegie Mellon University in Qatar, Qatar

Chapter 10
Supply Chain Coordination under Price Competition .......................................................... 226
S.P. Sarmah, Indian Institute of Technology, India
Santanu Sinha, Indian Institute of Technology, India

Section 3
Intelligent Agent Approaches to Supply Network Coordination

Chapter 11
e-Supply Network: The Design of Intelligent Agents for Buyer-Supplier-Supplier Coordination .... 250
Shima Mohebbi, University of Tehran, Iran
Rasoul Shafaei, K.N. Toosi University of Technology, Iran
Namjae Cho, Hanyang University, Korea
Chapter 12
E-Supply Network: Network Agents to Support Information Sharing for Buyer-Buyer-Supplier Coordination ................................................................. 269
   Namjae Cho, Hanyang University, Korea
   Iraj Mahdavi, Mazandaran University of Science and Technology, Iran
   Nezam Mahdavi-Amiri, Sharif University of Technology, Iran
   Shima Mohebbi, University of Tehran, Iran
   Mahdi Zandakbari, Mazandaran University of Science and Technology, Iran

Chapter 13
   Paolo Renna, University of Basilicata, Italy
   Pierluigi Argoneto, University of Basilicata, Italy

Chapter 14
A Multi Agent /HLA Platform for Enterprises Interoperability (Short-Lived Ontology Based) ........319
   Gregory Zacharewicz, Université de Bordeaux – UMR CNRS 5218, France
   Olivier Labarthe, CIRRELT & Université Laval, Canada
   David Chen, Université de Bordeaux – UMR CNRS 5218, France
   Bruno Vallespir, Université de Bordeaux – UMR CNRS 5218, France

Chapter 15
Agent-Based Dynamic Route Selection for Multilayer Electronic Supply Network .......................347
   Iraj Mahdavi, Mazandaran University of Science and Technology, Iran
   Namjae Cho, Hanyang University, Korea
   Hamed Fazlollahtabar, Mazandaran University of Science and Technology, Iran
   S. Hosna Shajieian, Mazandaran University of Science and Technology, Iran
   Nezam Mahdavi-Amiri, Sharif University of Technology, Iran
   Shima Mohebbi, University of Tehran, Iran

Compilation of References ....................................................................................... 366

About the Contributors ............................................................................................. 399

Index ......................................................................................................................... 406