

Introduction to the Minitrack Intelligent Decision Support for e-Logistics and Supply Chain Management

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1. Introduction

Information Technology is a prerequisite for successful Supply Chain Management (SCM) today and will become even more so in the near future. The e-Logistics field is developing very dynamically. Business-to business transactions are made via the Internet and ERP systems manage the transactional information within the enterprise. While IT systems are vital components in supply chains, their successful management relies on intelligent and coordinated decision making throughout the logistics network. Intelligent Decision Support using advanced decision technologies is becoming increasingly important in e-Logistics and SCM as well. Data Warehouses and Data Mining can be used to store and analyze product, inventory, and sales information. Simulation and optimization, which can be found in advanced planning and scheduling systems, can be employed for, e.g., inventory, production, procurement and distribution planning.

Intelligent agents can, e.g., communicate with different partners in a supply chain, assist in collecting information, share product information, negotiate prices, and distribute alerts throughout the logistics networks.

The design and implementation of intelligent decision technologies to support human agents in e-Logistics and SCM as well is a very active field in research, consulting, and software development. Many such technologies or systems have been implemented recently or are currently in the stage of implementation.

2. Focus, Topics and Presentations

The minitrack focuses on decision technologies which contribute to Intelligent Decision Support in the whole field of e-Logistics and in particular in all categories of Supply Chain Management. This includes but is not restricted to methodological issues such as optimization, heuristics, simulation, agent technologies, descriptive models, or data mining. Topics range from information management including, e.g., data warehousing, third and fourth party logistics provider up to closed loop supply chain issues, and beyond. Real world applications and software solutions which assist in solving decision problems are in the focus as well.

The minitrack within HICSS-36 consists of eight presentations and one open forum "Future Issues around e-Logistics". The three sessions of the minitrack cover a considerable part of the field described above.