MA04-029 - Mathematical Modelling for Integrated Demand and Supply Chain Management

Abstract

The joint optimization of marketing and supply chain decisions is mathematically demanding: new mathematical techniques are necessary to study the calibration and dynamics of models that combine dynamic pricing with reference price effects and supply chain decision models. In this project novel mathematical techniques for characterizing optimal policies in combined pricing/logistics models, designing and evaluating heuristics and identifying and calibrating reference price models are developed. Also, the evaluation using real-world data and an in-tegration into existing supply chain and marketing concepts and software tools is planned. An excellent interdisciplinary team located in Vienna with a partner at Erasmus University Rotterdam with a track record of successful cooperation will work on these subjects. Commercial expolitation is possible through prolytic, a Viennese software company and WU spin-off.

Keywords:
dynamic programming, system identification, supply chain management,market response functions

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Status: Completed (01.05.2005 – 31.08.2008)

Further links to the persons involved and to the project can be found under
https://wwtf.at/funding/programmes/past/ma/MA04-029/