
Abstract

In today's business environment, supply chains involve a number of autonomous organizations. The nature of supply chain processes with inter-organizational activities, involving different enterprises, calls for their design, analysis, control and evaluation in a well-designed and structured manner. The increasing importance of business processes, inevitably, puts process models in the epicenter of the majority of the efforts for achieving the required interoperability and agility in dynamic supply chains. As a consequence, it is necessary to design or redesign efficient business process models using supply chain process models. This can be achieved by reusing knowledge captured in reference process models. The purpose of this paper is to study current research efforts and pinpoint those appropriate to serve as the basis for the development of a supply chain reference model, focusing on demand variability management. In that direction, a detailed literature review of available commercial and academic reference models followed by criteria-based screening process is implemented. After examining the core concept and the basic principles behind each model, comparing their strengths and weaknesses under a critical and original perspective, the GSCF – Global Supply Chain Forum reference model is selected. Finally, in this paper, the Supply Chain Reference Model for Managing Demand Variability (SC REMEDY) model is introduced; a decision, knowledge, IT and risk enhanced reference model that is focused on demand variability management.

Keywords
Literature Review, Supply Chain, Modeling, Reference Models, Business Processes, SAP, SCOR, GSCF