At the Chair of Logistics & Supply Chain Management of TUM School of Management we work on:

Project study

On the topic:

Capacity Flexibility in the Supply Chain

Problem:

Predicting demand is crucial for any company in any industry branch. However, no prediction is perfect and neither are the underlying premises. Stochastic demand as well as macroeconomic shocks in a positive or negative way can pose as a threat to a company’s sales planning and as a result have an impact on the supply chain which has to rely on quality data in order to nominate a supplier correctly a few years before a product is introduced to the market. Capacity flexibility denotes the ability of the corporate purchase department to react as fast and as cheap as possible to changing demand.

This study focuses on the task to develop a concept for the purchase department in order to inquire and financially evaluate a growth- and crisis- scenario (in terms of part-volumes) additional to the standard volume scenario, with volumes and probabilities of occurrences for each of the three scenarios given.

The goal is to ensure, that the company can secure full supply in any of those scenarios and also to expose the pricing for the delta scenarios to competition between potential suppliers before nomination. This has the benefit that the monopoly situation of a supplier after nomination (in case negotiations for capacity flexibility are held after nomination and before the flexibility demand occurs) can be avoided and cost down potentials can be realized more easily.

Tasks:

- Development of a concept to inquire volumes of a growth, base and crisis scenario
- Define one or more type of contract possible to secure the supply
- Develop a tool to financially evaluate the supplier’s offers for each scenario in each type of contract to pick the right contract in order to make the best supplier decision
- Define a concept to trigger the flexibility if necessity occurs

Beginn: August/September 2012

Advisor: Maximilian Budde (maximilian.budde@tum.de)