9 Selection of Partners and Configuration of Business Relations in Project Based Supply Chain Networks

Herwig Winkler, Hubert B. Schemitsch

9.1 Problem Description

Globalized business relations, changing customer demands, shorter product-life-cycles and a growing dynamic in innovations lead to a tightened competition. Due to the increased stress of competition, companies are more and more forced to participate in networks.¹ Companies operating in industrial sectors like plant engineering, shipbuilding or construction business frequently plan their production and logistics processes on the basis of customer orders.² These companies build up 'project based supply chain networks' (PROSCN), where internal and external processes have to be planned and organized due to the specific customer requirements project-specifically.³ For a successful order processing the participating companies have to build up certain collaboration mechanisms like the order specific partner recruiting, negotiation of the required output and/or efficient process coordination.

Basically, a project based supply chain network is composed of strategic long-term partners and temporarily short-term companies for the project handling. Therefore, it is necessary to build up a strategic partner pool, which is used to select suitable partners project specifically, based on their competence profiles.⁴ These companies are integrated from the very beginning of the project to plan the needed order processing in common based on the project specifications. Other companies, which where involved temporarily within one single project, are only used for the defined project execution. The collaboration with strategic partners is characterized by a high integration degree whereas for temporarily involved companies it is sufficient to establish ordinary market relations. Therefore, it is advantageous to build up strategically optimized business relations to strategic partner companies and efficient business relations to temporarily involved companies. Due to optimal transactional costs, strategic partners have to supply strategically important demands and temporarily involved companies have to supply the remaining demands.

¹ Winkler (2005a)
² Nedeß, Friedewald, Koch (2002)
³ Tempelmeier (1999)
⁴ Winkler, Schemitsch, Kaluza (2007b)
In our contribution we will present conceptual considerations for the development and the application of an appropriate business-relation-development instrument. Therefore we will initially present the basic principles of PROSCN. For this purpose, we show specific elements and structures as well as typical characteristics for the classification of PROSCNs. Next, we investigate different partnership capabilities and different output profiles. Afterwards, we consolidate these data into a business relation portfolio for deducing appropriate shaping notes for the collaboration in PROSCNs. Finally, we demonstrate that the application of the proposed concept leads to a tightened competitive position for the PROSCN and the involved partner companies. The presented results are based on a research project on the Alpen-Adria-Universität Klagenfurt within construction business, more precisely the prefabricated house industry.

9.2 Basics of Project Based Supply Chain Networks

9.2.1 Specific Characteristics of Project Based Supply Chain Networks

For effective design and efficient optimization of project-based companies, strategic and long-term cooperation and/or networks between the companies involved in the value-added processes have to be established. Therefore, the project-based supply chain normally appears as a network, identified as a PROSCN. All of the involved enterprises have to concentrate on their core competencies and incorporate them in a cooperative manner with the network participants. For this purpose, every enterprise must be willing to open its boundaries to its partners. Furthermore, co-operation is not automatically based on long-term contracts; however, trusting agreements are very important. In order to achieve common competitive advantages, a high level of integration among the partners is indispensable. The actions of integration involve, for example, the design of interorganisational planning and controlling systems, the product design process, stock management, the cooperative design of packages, the integration of common logistics service providers, and the synchronization of transports. This results in a higher level of service for the end-consumer and lower costs in all sectors of the PROSCN, which in turn leads to a positive shift in the success of the involved companies.

5 Ricardo, Bardio (2000)
6 Lambert, Cooper (2000); Kaluza, Dullnig, Malle (2003)
7 Kersten, Kern (2002); Winkler (2005b)
8 Tan, Kannan, Handfield, Ghosh (1999)