

Chapter 2.20

A Reference Model for Strategic Supply Network Development

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ABSTRACT

Based on rapidly changing market conditions and increasing pressure on cost and productivity, companies in different industries have started to concentrate on their core competencies and to decrease vertical range of manufacture. This resulted in an increasing dependency between the producing companies and their suppliers. Enterprise networks are formed creating the necessity to focus on the strategic development of supply network partners. While currently strategic purchasing mainly deals with direct suppliers, future strategic purchasing needs to deal with flexible and dynamic supply networks. This results in a paradigm shift in the domain of strategic sourcing from a supplier-centric to a supply network scope. In order to support the paradigm shift,

the development of a reference model specifying the organizational and functional implications is necessary. This chapter therefore introduces a reference model for the domain of strategic supply network development extending the traditional frame of reference in strategic sourcing to a supply network perspective.

INTRODUCTION

Driven by drastically changing market conditions, companies are facing an increasingly complex competitive landscape. Decisive factors such as globalization of sales and sourcing-markets, shortened product life cycles, innovative pressure on products, services and processes and customer requests for individual products are forcing

companies to undergo a drastic transformation of business processes as well as organizational and managerial structures (Burtler et al., 1997). The shift from a function-oriented to a process-oriented organization with a strong customer focus is essential in order to better adapt to fast changing market requirements and to become more flexible while meeting individualized customer demands (Osterloh & Frost, 2003, pp. 28-31). Within an enterprise, the core business processes (Prahalad & Gary, 1990) need to be identified, improved and (partly-) automated, while at the same time other processes are outsourced to business partners. As a consequence, business processes concerning, for example, product development, market research, sales, production, delivery and services, are affected and have to be adjusted and integrated not only within a single company but also with external partners, spanning multiple tiers of suppliers. As already recognized by Malone (Malone & Lautbacher, 1998, pp. 151-152), “the boundaries between enterprises will become much less important. Transactions within organizations will become indistinguishable from transactions between organizations and the business processes, once proprietary, will freely cross organizational boundaries.” Companies recognize that the source of their competitive strengths does not only lie in their core competences, but also in the cooperative relationships with their business partners (Jarillo, 1988, p. 31). To an increasing degree, traditional organizational structures are nowadays evolving towards *hybrid* and *network structures* (Malone & Lautbacher, 1998, p. 166; Picot et al., 2003, p. 289), taking advantage of complementary competences of their external partners.

In *hybrid organizational structures*, cooperation (Picot et al., 2003, pp. 303-304) describes the dependency between two firms, which are coequal and collaborate in order to exchange or share information, products or services. Cooperation has a symbiotic character, can take a variety of forms, such as strategic alliances, strategic partnerships, strategic cooperations, operative

cooperations and joint ventures and occurs across vertical and horizontal boundaries. Cooperation mainly occurs as a result of outsourcing nonspecific activities—necessary for the production of a product or service—which are of medium strategic relevance. If instead, idiosyncratic activities with low strategic relevance are outsourced to business partners, the degree of autonomy between the partners may change, depending on the level or importance of the single enterprises.

If two or more companies are involved in inter-organizational collaboration, an *enterprise network structure* is created. Enterprise networks are formed to better fulfill specific customer requests providing customized products on time in the right quality and for a competitive price. Such networks can span over several tiers, especially in large manufacturing companies (e.g., in the automotive industry). Even if enterprise networks have been introduced many years ago by Jarillo, Malone and Miles, (Jarillo, 1988; Malone et al., 1987; Miles & Snow, 1984; Thorelli, 1986), there is no single, broadly accepted definition of an enterprise network today. Several expressions exist to define different, or sometimes similar, types of enterprise networks. Terms such as *strategic networks* (Gulati et al., 2000), *alliance networks* (Gulati, 1998), *economic webs* (Hagel III, 1996), *business webs* (Tapscott et al., 2000), *value webs* (Herman, 2002), *virtual networks* (Malone & Lautbacher, 1998) or *dynamic networks* (Pine et al., 1993), can be found in the literature. As defined by (Gulati et al., 2000, p. 203), “*strategic networks* potentially provide a firm with access to information, resources, markets, and technologies; with advantages from learning, scale, and scope economies; and allow firms to achieve strategic objectives, such as sharing risks and outsourcing value-chain stages and organizational functions.” Gulati uses strategic networks in a quite general manner, assigning several types of networks—which are composed of inter-organizational ties—for example, strategic alliances, joint ventures and long-term buyer-supplier partnerships to this

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