6 Electronic Commerce in the Retail Sector

6.1 Introduction and Explanation of Terms

Scarcely a development has influenced the structures of our economy so lasting and in such a short time as the new capabilities of the digital business handling over worldwide networks that are covered by the glittering term electronic commerce. Even when the predictions about the size of the expected online sales differ, they all forecast for the next few years a significant increase of the sales revenues that will be achieved over the Internet. The largest potential is seen in the electronic business conducted between companies (B-to-B), with a forecasted sales volume of 153 billion dollars in 2000. A significantly lower revenue potential is seen in the online sales to end customers (B-to-C). Figure 6-1 compares forecasts from various sources.

Figure 6-1: Expected online sales in 2000
Depending on the viewpoint and the considered object, the literature provides quite different interpretations of the term electronic commerce (EC). Whereas some authors understand it to be just the electronic transfer of business data, the EC term in the nowadays dominating interpretation serves more as a frame that covers the comprehensive support of all value chains for companies through the use of telematic systems. EC is considered as being "... a concept for the use of specific information and communications technologies for the electronic integration and interconnection of different value chains or cross-company business processes" (Wolf, et al. 1997). This interpretation will be followed in the following sections.

The adaptations of the organizational structures and business processes associated with EC will significantly influence the retailing sector in the future. However, in contrast to the consequences of the previous developments in information and communications technology, here, not only the relationships between the companies will be changed, such was the case for the use of Electronic Data Interchange (EDI). Rather, EC will influence not only the structure of the relationships of the actors along the value chain but also the relationships between each of the participants of this chain and external partners, and the competitors (see Figure 6-2).

The DP landscape previously characterized by proprietary systems often demanded high investment and maintenance costs from companies, which hindered, in particular the integration of smaller companies in the electronic procurement and sales structures of wholesalers or manufacturers. Heterogeneous systems resulted in numerous stand-alone solutions with media fragmentations in the information transfer and longer processing times producing increased costs. In contrast, the establishment of the TCP/IP protocol family as standard for the information transmission and the ubiquity of the Internet provides a number of advantages. Namely, it simplifies, increases the flexibility and the economics of the integration