

The fragmentation of industrial value chains and its impact on freight transport and transport for commercial services

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Against the background of the increasing fragmentation and the growth of services within the industrial value chain, it can be expected that transport demand is steadily rising. Empirical knowledge about these particular effects on transport demand, however, is quite modest. While a number of highly aggregated descriptive data about production and traffic are collected and registered in Germany, detailed information about effects on traffic is rare.

Therefore the DLR Institute of Transport Research has held two surveys the first concerned with the relationship between ongoing fragmentation of the industrial production and demand for freight transport, the second with the evolution of travel for business services.

In 2005 907 production firms were interviewed in a survey which included several aspects of fragmentation and outsourcing.

The results show significant increase in the division of labour within industrial value chains that have led to modifications of the supply relationships. Industrial production has become increasingly international. The geographic enlargement of markets and global procurement has direct implications on traffic. Supply relationships reveal an ongoing change in the firms' procurement strategy, affecting the number of suppliers and deliveries.

More than one fourth of the firms have changed to an external procurement of industrial products by outsourcing and spatial disintegration within the last 10 years. Furthermore, 14 % of the surveyed firms are planning additional outsourcing and relocation in foreseeable future, targeting before all Germany, but also the MOE states and China.

The second survey that was accomplished as an explorative study within the framework of the research project 'Travel and transport for commercial services within industrial value chains'. This project investigates the specific causes of traffic for commercial services in the field of the industrial production and aims at a prognosis of its future development. The study shows that outsourcing strategies do not concern all functional areas of the firms. Especially services that are supposed to increase the core competence of the enterprise now or in future are not outsourced at all.

Generally two tendencies in development of the effect on traffic caused by outsourcing of services are described in the article.