

6. Summary of the Research Gap

During the last decade, rapid technological changes, shorter product life cycles and intensified competition triggered by globalization forced corporations to increase the pace of new product development and to optimize their processes drastically (Handfield et al., 2004). Many authors have pointed out that integration of consumers and suppliers – especially in the field of generating ideas – leads to considerable advantages in competition (Christiansen, 2000; Cooper, 1999; Handfield et al., 2004 and Tether, 2003). Additionally, cross-company ventures may accelerate technological innovation (Powell, 2004). An empirical paper of Tether – including about 12,000 service providers in 13 Western European countries – proves that consumers and suppliers are, besides the company's own possibilities, an important source for information about innovation (Tether, 2003). The importance of suppliers is elucidated by Handfield et al. stating that they have a strong direct influence on costs, quality, technology and time-to-market of product innovations (Handfield et al., 2004). Furthermore, they emphasize that a number of reports have highlighted the fact that supplier participation in product development projects can help reducing concept-to-customer development time, costs at the same time improving quality and providing innovative technologies that can help capture market share (Handfield et al., 2004). Despite these obvious advantages, only few corporations work officially and directly together in the area of generating innovative ideas.

In both core markets European network airlines are losing market shares. An estimation of McKinsey shows that European low cost carriers had a joint market share (passenger market) of 16 % in 2005 that will increase to 24 % in 2010 (McKinsey & Company, 2005 and Auerbach/ Delfmann, 2005). There are similar developments in the freight market. The important position that integrators have in today's airfreight market is underlined by a survey conducted in the transportation industry in 2004. When analyzing total transport volume – national and international flights – as an indicator, the first (FedEx) and the fourth (UPS) are claimed by integrators (IATA, 2005). When looking at Europe the players DHL and TNT have considerable shares. In addition, especially in the airfreight market the increasing competition leads to decreasing margins, since lower transport quality is compensated by lower prices (Reifenberg/ Remmert, 2005). The possibility of direct and official – i. e. legally approved – cooperation in the field of generating innovative ideas will be object of scrutiny of my dissertation. It is hypothesized that for players in the supply chain of the European aviation industry, this kind of innovation cooperation can often – at least partly – solve the identified problems. This would lead to a statistically significant change of costs, time and quality. Thereby the company's overall success can be significantly improved. The doctoral thesis will focus on major network airlines and treat the passenger as well as the freight market. An extensive literature review shows that there is not a single work concerning measuring the impact of exchanging innovative ideas within the supply chain of the European aviation industry, specifying the conditions for exchanging and additionally describing which kinds of ideas can be exchanged between the key players of the European aviation industry – keeping the focus on the network airlines.

7. Objective and Research Questions

The objective of the dissertation can be derived from the statements of the previous chapter. It is about proving the impact of exchanging innovative ideas on factors such as costs, time and quality. Furthermore, this impact should be shown for the individual company's business success for the supply chain partners of the European aviation industry. As mentioned above, the focus is on the traditional network airlines. For achieving this overall objective I will try to answer more precisely the following three research questions:

- a. Which kind of innovative ideas are suitable for exchanging with innovation partners along the supply chain of the European aviation industry?
- b. When is it possible to exchange innovative ideas? Within this context, e. g. legal and cultural aspects as well as trust, reputation and the personal structure of decision makers should be treated.
- c. How does the exchange of innovative ideas along the supply chain of the European aviation industry affect cost, time and quality as well as the individual company's business success of participating companies?

8. Summary of First Results

Up to now I have already developed a tentative dissertation outline, an appropriate dissertation schedule and a core research model. For the topics of "success", "innovation management", "supply chain" and "aviation industry" a lot of relevant literature has been found. In addition, I have previously conducted a literature review on the supply chain of the European aviation industry. Concerning the topics of innovation management and the success of innovation cooperations an article is in progress. I will try to answer my first two research questions with case studies. The last and also main research question will be answered with a structural equation model (SEM). Therefore some hypotheses have been derived from economic theories and a first SEM has already been developed. It consists of a formative and a reflective measurement model. This SEM will be analyzed with the partial least squares approach. For gathering the inevitable data for being able to analyze the SEM I will do 70 structured interviews in Europe with a questionnaire as a guiding tool. On this occasion, I will ask innovation managers as well as supply chain managers.