ABSTRACT

Multinational pharmaceutical companies are facing the challenge of finding the right balance between local responsiveness and global integration. A cross-case study analysis of the sales force training process at the Swiss company Roche Pharmaceuticals identified four areas of collaboration, each of which comprises a certain number of collaborative tasks. The equivocality and complexity of these tasks should, however, be taken into account when considering information and communication technology (ICT) support. The authors developed a task-media fit matrix and used it to choose and justify the usage of certain information and communication technologies. The end result of this article is a reference model for the three layers of strategy, process, and ICT for e-collaboration within the dispersed sales force training process in multinational pharmaceutical companies. The authors also maintain that the task-media fit matrix can help both practitioners and researchers to either justify investments in e-collaboration tools or to evaluate ICT architectures in the field of e-collaboration.
INTRODUCTION AND RESEARCH OBJECTIVE

A major challenge for multinational pharmaceutical companies is finding the right balance between local responsiveness and global integration (Doz, 1986, p. 191). Pharmaceutical companies based in Europe mainly follow a strategy of low economic integration and high levels of national responsiveness in terms of marketing (Rugman, 2005, p. 114). This article’s underlying framework is, however, based on the transnational company, which simultaneously exploits two main sources of competitive advantage: local responsiveness, in the form of affiliates, and global integration (Holtbrügge & Berg, 2004, p. 130; Prahalad & Doz, 1987). In order to avoid reinvention of the wheel and information silos, the affiliates of such a transnational company do not only have to collaborate closely, but also have to exchange information and knowledge. Consequently, there has to be a focus on collaboration between the headquarters and the affiliates to build a durable competitive advantage (Bartlett & Ghoshal, 1987, p. 7).

Sales representatives who sell complex products (e.g., cancer drugs) or services are the most important interface between the company and the consumer (Cohen & Levinthal, 1990, p. 132; Crosby, Evans, & Cowles, 1990, p. 68). Consequently, training plays an important role in keeping sales personnel up to date with the newest developments in respect of their products or services. Furthermore, training has to ensure that key marketing messages are transferred to the customer. The stakeholders involved in the development and execution of sales force training are global and local marketing and sales management, product management, the training department (if there is one), and, to some degree, the IT and human resources departments (Heidecke, Mayrhofer, Schiesser, & Back, 2007). All stakeholders must collaborate very closely to achieve sales force performance through greater levels of knowledge and more efficient sales techniques through training measures (Johnston & Marshall, 2006, p. 255). A collaborative team approach should therefore be applied for the better coordination of in-house activities as well as the demands of the sales force in the field (Belz, 1999, p. 342). These virtual teams are called selling teams in this article and can be compared to knowledge teams (Mahnke, Pedersen, & Venzin, 2005, p. 106) that interact across subsidiary borders and positively influence certain affiliates’ absorptive capacity. Single tasks are accomplished by dynamic knowledge networks (Seufert, Back, & Von Krogh, 2006) on an organizational and individual level.

The main research question is thus: How must the dispersed sales force training process be organized to enable improved information and content exchange in the identified collaboration areas? The goal is to develop a reference architecture comprising a strategy, process, and information and communication technology (ICT) layer based upon the business engineering model (Österle & Blessing, 2003). The architecture is intended to support knowledge transfer and information exchange, and is based upon best practices identified in a cross-case study analysis of eight worldwide affiliates of the Swiss multinational pharmaceutical company Roche. This architecture not only provides business developers and IT practitioners with a detailed proposal for the design of a multinational company’s dispersed sales force training process, but also with the design of its supporting information and communication technology infrastructure. Secondly, we address researchers by proposing our task-media fit matrix (TMF matrix) as an instrument for identifying adequate media for certain collaborative tasks as well as for evaluating and possibly refining ICT architectures for e-collaboration created in design science processes (Hevner, March, & Park, 2004, p. 85).

The following section provides an overview of existing research in the field of geographically dispersed virtual teams and the electronic