

How Organizations Learn and Produce New Knowledge - The Case of Innovations

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Innovation cases are especially interesting for organizational learning because new knowledge has to be generated while the existing knowledge is by definition insufficient for planning a successful innovation. We studied 21 successful and 21 unsuccessful innovation cases in 16 German firms; in each firm, one or two successful innovations as well as the same number of unsuccessful cases were analyzed such that neither the innovation type nor the business cycle of the industry nor the type or culture of the firm could explain the success or failure of the innovations. So, the causes of success or failure must lie in the innovation process itself. The innovation cases were reconstructed by interviews with (on average) five main involved persons. Additionally, 80% of the interviewees answered a standardized questionnaire.

Knowledge production (learning) is a multi-level organizational process. We concentrated our research on individuals, groups, leaders, and organizational decision-making (Scholl, 2004), but it will be argued that interorganizational networks, as well as economic, political, and societal processes are also important – and function according to the same evolutionary logic of variation, selection, and retention (Campbell, 1974; Scholl, 2007). Many of these evolutionary knowledge processes entail implicit knowledge, not adequately explicable and communicable (Meyer, Scholl, & Zhang, 2007; Scholl, 2007). Since it is difficult or practically impossible to register concrete knowledge gains across quite different product and process innovations, we analyzed the opposite, information pathologies (Wilensky, 1967), which impede proper knowledge gains. Information pathologies are an important reason for innovation failures and they flourish through deficient organizational decision processes, especially through the restrictive use of organizational power (Scholl, 1999, 2004). The tested model of effective teamwork (Scholl, 1996) or – more generally – organizational learning through collaboration (Scholl, 2004) has been confirmed in other laboratory and field experimental studies (Scholl, 2005).