

# The quality of group tacit knowledge <sup>☆</sup>

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Accepted 7 February 2008

Available online 18 March 2008

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## Abstract

Organizational knowledge creation theory explains the process of making available and amplifying knowledge created by individuals as well as crystallizing and connecting it to an organization's knowledge system. What individuals get to know in their (working) lives benefits their colleagues and, eventually, the wider organization. In this article, we briefly review central elements in organizational knowledge creation theory and show a research gap related to the quality of tacit knowledge in a group. We advance organizational knowledge creation theory by developing the concept of "quality of group tacit knowledge." Based on this concept, we further develop a comprehensive model explaining different levels of tacit knowledge quality that a group can achieve. Finally, we discuss managerial implications resulting from our model and outline imperatives for future theory building and empirical research.

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*Keywords:* Tacit knowledge; Group tacit knowledge; Quality of group tacit knowledge; Improvisation; Phronesis; Collective action

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## 1. Introduction

Knowledge is one of the most important sources of competitive advantage for firms (Grant, 1996; Nonaka, 1990, 1991, 1994; Nonaka and Takeuchi, 1995; Nonaka and Toyama, 2003). A critical factor for competitive advantage is enabling new knowledge creation that allows the firm to respond as quickly as possible to the business requirements of the near and more distant future. Thus, knowledge and the theory of organizational knowledge creation have long been discussed among academics. Organizational knowledge creation is defined by Nonaka et al. (2006, p. 1179) as "the process of making available and amplifying knowledge created by individuals as well as crystallizing and connecting it with an organization's knowledge system."

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Knowledge creation is of paramount importance to a firm's strategy<sup>1</sup> (e.g., Bierly and Chakrabarti, 1996). Nonaka et al. (1994) argue that, in dealing dynamically with a changing business environment, firms should not only process information efficiently but also create knowledge. A changing business environment is characterized by increased global competition, rapidly changing technologies and market needs, and shorter product life cycles which all necessitate creativity and innovation (McDonough, 1993). Knowledge creation is often seen as the “front-end” of product development where tacit knowledge plays a great role in achieving innovation success. Yet, in most cases, innovation is not the product of a single person but a collective work of a group of people or a team which draws the attention to “group tacit knowledge (GTK).” GTK is socially complex and difficult to imitate, and therefore constitutes a part of a firm's intangible resources that give rise to competitive advantage (Leidner, 2000). Given its centrality to organizational competitiveness understanding its features is of critical importance. Although much theory and research exist on “individual tacit knowledge” (Gourlay, 2004; Nonaka et al., 2000; Nonaka, 1994; Polanyi, 1967; Tsoukas, 2003) and some scholars emphasize the quality of individual tacit knowledge (Doran, 2004; Koskinen, 2001; Nonaka, 1994; Noh et al., 2000; Nonaka and Toyama, 2007; Sanders, 2004), so far, academic work on organizational knowledge creation have rarely focused on GTK, nor has it systematically identified what the “quality of group tacit knowledge (QGTK)” could refer to and how one can distinguish between groups with different quality levels in their collective tacit knowledge. One might reason, for example, that the tacit knowledge of a group is the aggregation of all individual tacit knowledge and that its quality is a function of individual tacit knowledge. In this paper, we demonstrate that this is not the case, and argue that GTK has a meaning in itself and that it also is associated with various levels of quality.

The goal of this paper is to fill a gap in the literature and identify what “group tacit knowledge” and its “quality” mean. As the basis for our model development, we draw upon the SECI model from organizational knowledge creation theory (Nonaka, 1994), Aristotle's concept of “phronesis” (Aristotle, 1999; Nonaka and Toyama, 2007), theories of organizational improvisation (Crossan, 1998; Moorman and Miner, 1998; Vera and Crossan, 2005), and organizational aesthetics (Baumgarten, 1950; Strati, 2003, 1996, 1992). In the next section, we identify the existing research gap in organizational knowledge creation theory concerning QGTK. Then we introduce a model that explains the levels in QGTK. Next, we discuss the role of advanced information technology in enabling or constraining group members' socialization and derive implications for the QGTK. Finally, we discuss managerial implications resulting from our model and outline imperatives for future theory building and empirical research.

## 2. The quality of group tacit knowledge in organizational knowledge creation theory

In this section, we review basic concepts of organizational knowledge creation theory and point out an important research gap concerning the quality of group tacit knowledge. In organizational knowledge creation theory, knowledge is: (a) justified true belief, meaning that individuals justify the truthfulness of their observations based on their observations of the world. Justification, therefore, hinges on unique viewpoints, personal sensibility, and experience (Nonaka and Takeuchi, 1995). Knowledge is also: (b) the capacity to define a situation and act accordingly (Stehr, 1992, 1994; von Krogh et al., 2000). Here, knowledge is oriented towards defining problems, rather than the solving of depicted and manipulated pre-given problems (e.g., Newell and Simon, 1972). Finally, knowledge is: (c) explicit and tacit (Nonaka, 1991). Knowledge that can be uttered, formulated in sentences, and captured in drawings and writing is explicit. Knowledge tied to the senses, movement skills, physical experiences, intuition, or implicit rules of thumb, is tacit (see also Polanyi, 1967).

The theory of organizational knowledge creation proposes that new knowledge is created through processes of conversion between tacit and explicit knowledge<sup>2</sup>: socialization, externalization, combination, and internalization (Nonaka, 1994; Nonaka et al., 2000). Empirical and theoretical work has shown that knowledge creation cannot be separated from the context in which it is created. Knowledge creation and sharing is

<sup>1</sup> Whereas a firm's near-term survival hinges on strategies to maintain its current knowledge in the business environment, the creation of new knowledge secures future profitability (Nonaka et al., 2006).

<sup>2</sup> An alternative approach to the codification of tacit knowledge can be found in Galliers and Newell (2003) and Galliers (2006).

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