Tacit Knowledge as a Promoter of Success in Technology Firms

Kaj U. Koskinen
Pori School of Technology and Economics
Tampere University of Technology
P.O. Box 300, FIN-28101 Pori, Finland
Te. +358 2 627 2839, Fax. +358 2 6272727
Email. kajuk@pori.tut.fi

Abstract
In this paper we address the question of whether tacit knowledge can be a promoter of success in technology enterprises. Tacit knowledge is illustrated focusing on its foundations, on how it is expressed and how tacit knowledge can be utilised in technology firms. A model is presented by which the utilisation of tacit knowledge can be understood more profoundly. The question of how significant a role tacit knowledge plays in the formation of competitive advantage in technology enterprises is explored. Furthermore, the results of an experiment, in which the utilisation of tacit knowledge was estimated in ten small specialised supplier –type technology companies, are presented.

1. Introduction
Tacit knowledge represents knowledge based on the experience of individuals. It expresses itself in human actions in the form of evaluations, attitudes, points of view, commitments, motivation, etc. Usually it is difficult to express tacit knowledge directly in words, and often the only ways of presenting it are through metaphors, drawings and different methods of expression not requiring a formal use of language. On the practical level many experts are often unable to express clearly all they know and can do, and how they make their decisions and come to conclusions.

Polanyi [23] encapsulates the essence of tacit knowledge in the phrase "We know more than we can tell", and provides further clarification of the concept in such commonplace examples as the ability to recognise faces, ride a bicycle or swim without even the slightest idea of how these things are done. Rosenberg's ([25], p. 143) description of traditional technological knowledge, accumulated in crude empirical ways with no reliance upon science, provides a good definition of tacit knowledge in technology companies: "The knowledge of techniques, methods and designs that work in certain ways and with certain consequences, even when one cannot explain exactly why". Thus, tacit knowledge equals practical know-how.

Powerful comprehensive intuition is associated with tacit knowledge, along with a flexible ability to evaluate the knowledge and know-how required by the situation. Thus, tacit knowledge reinforces an individual’s practical preparedness and allows concentration on the key activities of the task, since a part of the activity has become automatic through practice (Holma et al., [15]). This kind of knowledge, quiet and non-verbal practical know-how, is difficult to study and define. Its structure is difficult to understand and therefore it cannot be fully comprehended or communicated. It is a question of knowing how complicated work situations should be managed and problems tended to.

However, in technology companies the significance of tacit knowledge has probably not yet been sufficiently understood. The fact that a great deal of the know-how required in the activities of a technology enterprise is tied to knowledge that is not written down in documents but realised through the expertise and understanding of the personnel, is not taken into consideration as a whole.

Tacit knowledge is acquired primarily through experience and therefore it cannot be communicated easily to others (Nonaka et al., [20]). Thus, we conclude that in order for a technology company to be able to utilise its personnel’s tacit knowledge, the personnel has to be committed to the tasks and goals of the company and has to have possibilities to transfer and receive that knowledge.

This paper has two goals; to illustrate factors promoting the utilisation of tacit knowledge in technology firms, and to explore how significant a role tacit knowledge plays in the formation of competitive advantage in such companies. Therefore the following discussion describes the views of various researchers on the above mentioned components of tacit knowledge and its utilisation, i.e. the experience, commitment, and interaction of the people working for the company, and competitive advantage.