

Chapter 17

Measuring the Dimensions of Tacit and Explicit Knowledge: Enhancing Knowledge Management

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ABSTRACT

Knowledge workers are often employed to extract knowledge from domain experts in order to codify knowledge held by these experts. The extent to which workers rely on tacit or explicit knowledge may produce inefficiencies and reduce productivity if the information is not shared among those who need it or if it encapsulates strategic goals and is inadvertently shared with those who might undermine the firm's competitive advantage. This chapter discusses the nature of tacit versus explicit knowledge in terms of the dimensions thought to contribute to its degree of tacitness. The authors present the results of an exploratory study in which they develop an instrument designed to elicit perceptions regarding the nature of knowledge used by workers and their degree of reliance on tacit knowledge. It is an indirect form of measurement that eliminates the need to render the knowledge entirely explicit prior to measurement. As an additional benefit, it allows the classification of knowledge along a continuum, ranging from entirely tacit to entirely explicit or somewhere in between. Use of this instrument by managers will help them identify pockets of tacit knowledge within the firm that could either be made explicit so that other workers can benefit from it or that could be prevented from becoming explicit should its strategic value require protection.

INTRODUCTION

Knowledge is created, stored, transferred, and used at all levels of an organization in an attempt to achieve the goals of the organization. The organi-

zation's performance is strongly influenced by the extent to which the appropriate knowledge is available and utilized by those who need it (Badaracco, 1991). The knowledge must also be aligned with an organization's innovation position and product/market position in order to establish an effective strategy (McDonough, Zack, Lin, & Berdrow,

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2008). Thus, organizations engage in a variety of methods of knowledge management in order to make available the knowledge that is needed. However, even when knowledge is available it is not always accessed by organization members (Nonaka & Takeuchi, 1995). Planning for the appropriate use of knowledge by organization members becomes very important (Flores, Catalanello, Rau, and Saxena, 2008). Some organization members may prefer or rely on certain types of knowledge rather than accessing all of the appropriate types of knowledge. This can result in suboptimal outcomes.

One knowledge characteristic that organization members may rely upon in differing amounts is its degree of tacitness. After Polanyi (1962, 1967) introduced the concept, the tacit character of knowledge has long been studied in the field of psychology and has begun to play a large role in other disciplines such as organizational behavior and management. Although success has been achieved in indirectly measuring tacit knowledge (cf. Scribner, 1986) research has not yet been conducted that aligns the degree to which individuals rely on tacit knowledge with tasks that are completed using varying degrees of tacit knowledge.

Increasing our understanding of what types of knowledge that organization members are most likely to utilize can help organizations improve their knowledge management practices. Primary reliance on either explicit or tacit knowledge, especially under varying degrees of complexity, can affect performance (van den Bos and Poletiek, 2008). For example, efforts by an organization to increase the amount of explicit knowledge that is created and made available to organization members for a particular project may be ineffective if organization members rely primarily on tacit knowledge. Instead the organization could consider increasing the amount of tacit knowledge available to the organization members or it could identify members who rely more on explicit knowledge and have them carry out the project. To do

so implies that we can identify what tasks require a greater reliance on tacit knowledge to complete and which organizational members rely more on tacit and/or explicit knowledge in general.

An additional area of concern to managers is the degree to which tacit knowledge can affect competitiveness (Hall, 1992). Organizations can benefit competitively from attempts to conceal the adoption of certain practices (Terlaak and Gong, 2008), but when this proves inadequate innovative practices based on tacit knowledge can limit imitation by competitors. Even though absorptive capacity can influence the rate of interorganizational knowledge transfer (Todorova and Durisin, 2007), explicit knowledge is typically much easier for competitors to copy because it can be codified and transferred easily (Nonaka & Takeuchi, 1995). Therefore, if management can identify both the areas of their business that are more likely to use tacit knowledge and those in the organization who might be more inclined to rely on tacit knowledge, they can better match workers to tasks and thereby improve protection of knowledge which may have a strategic or other competitive value. Thus, a method to measure this type of knowledge would be useful to organizations to the extent that they would be better able to manage its use and protection.

From a researcher's perspective, the explicit/tacit character of knowledge is important to consider because studies that include knowledge as a variable of interest can have differing or erroneous outcomes if they do not measure the explicit/tacit character of the knowledge. For example, if organizations are being examined in regard to the amount of knowledge they possess and the resulting effect on organizational performance, the results may become muddled because firms may have a significant amount of explicit knowledge to help them create new products or processes, but those products and processes may be easily imitated by competitors and the organization's performance suffers as a result. Existing knowledge measurement approaches may show that the amount of

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