

Chapter 7.20

Social Network Structures for Explicit, Tacit and Potential Knowledge

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ABSTRACT

The purpose of this conceptual article is to develop argumentation of the knowledge assets of a firm as consisting of three constructs, to extend the conventional explicit, tacit dichotomy by including potential knowledge. The article highlights the role of knowledge, which has so far not been utilized in value creation. The underlying assumption in the article is that knowledge assets can be thought of as embedded in the relationships between individuals in the firm, rather than possessed by single actors. The concept of potential knowledge is explained with selected social network and knowledge management literature. The findings suggest that the ideal social network structure for explicit knowledge is centralized, for tacit knowledge it is distributed, and for potential knowledge decentralized. Practically, the article provides a framework for understanding the connection

between knowledge assets and social network structures, thus helping managers of firms in designing suitable social network structures for different types of knowledge.

INTRODUCTION

This article starts from the notion that knowledge is an asset for the firm in value creation (e.g., Spender, 1996). According to research in social networks and in the theory of the firm, value creation with knowledge can be considered as something that is embedded in the relationships between individuals, thus making the research on firms' social network structures important (Nelson & Winter, 1982; Granovetter, 1985; Winter, 1987; Kogut & Zander, 1992; Uzzi, 1996). A common saying in the social networks literature is "it's not what you know, it's who you know" (e.g., Cohen & Prusak, 2001).

The main message of this article is that there are fundamentally different types of knowledge assets that produce value with fundamentally different types of social network structures. Based on a short overview of knowledge management literature, an idea is proposed that there are three types of knowledge assets in a firm: explicit, tacit and potential, as well as corresponding three ideal types of social network structures: centralized, distributed and decentralized. The general purpose of this article is to develop convincing arguments to show that knowledge should be described with three constructs, to extend the conventional dichotomous view of knowledge. This line of thought makes it possible to start thinking of unrealized, not yet implemented, knowledge as a strategic asset, in addition to the knowledge assets already utilized by the firm.

The dichotomous view of knowledge as either explicit or tacit has been dominant in the theory of knowledge management after Nonaka and Takeuchi (1995) introduced their model of knowledge creation, the so-called SECI model. It has been claimed, however, that although the SECI model is excellent in describing a process after the initial idea has been developed for a new innovation, it does not necessarily explain the time before clarifying the idea (Engeström, 1999). One possible explanation for this is that the constructs of explicit and tacit knowledge alone are not sufficient to explain the varying nature of knowledge, and how knowledge should be utilized in the very early phases of innovation processes.

This article elaborates arguments about a third knowledge construct, potential knowledge. Potential knowledge is first explained through theory, and illustrated with social network structures. Potential knowledge is defined as a *knowledge asset either in codified or experience-based form that has not yet been utilized in value creation*.

A so-called Coleman-Burt debate on ideal social network structure appears in the social networks literature. This debate is about whether the most optimal network should be structurally

sparse and decentralized (Burt, 1992; 2004) or dense and distributed (Coleman, 1988; Uzzi, 1996). There are empirical suggestions towards solving this debate, arguing that the optimal network structure is a combination of sparseness and density, including network ties among the actors that enable both closure and reach simultaneously (Uzzi & Spiro, 2005; Baum, van Liere, & Rowley, 2007; Schilling & Phelps, 2007).

As a result of this theoretical article, it is suggested that the type of knowledge asset—explicit, tacit or potential—is a contingency for the social network structure. It is suggested that there is no one ideal social network structure. Instead, the social network structure of a firm includes a centralized structure for explicit knowledge, a distributed structure for tacit knowledge, and a decentralized structure for potential knowledge. All the types of knowledge and the corresponding social network structures are needed, and individuals can belong to many types of networks simultaneously.

Besides categories of knowledge, another approach to the concept is to consider knowledge as a continuum. There, knowledge is never purely either tacit or explicit, but a combination of both (e.g., Jasimuddin, Klein, & Connell, 2005). Following this line of thought, knowledge that is utilized in the creation of value can be thought to include all three types, with the weighting of the different types changing from one situation to another. The role of potential knowledge is essential in the early phases of the innovation process, whereas tacit knowledge is important in the development phases, and explicit knowledge in the commercialization phases (c.f., Nonaka & Takeuchi, 1995). Based on the knowledge continuum insight, it is proposed in the discussion section that the weights of the different knowledge types, and also the social network structures are different in the idea, development and commercialization phases of the innovation process. Implications for managers are presented and further research issues suggested in the concluding section.

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