

Integrating Stability and Dynamics of Organizational Capabilities Through Informal Knowledge Transfer

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In the knowledge management literature it is widely accepted that organizational core competencies are the basis for competitive advantages because of their stable and reliable inimitable character (Prahalad/Hamel, 1990; Grant, 1996). Due to increasing dynamics of the global environment, however organizations are forced to integrate changing demands and adapt or develop new competencies to be able to stay flexible and dynamic (Lei/Hitt/Bettis, 1996). The challenging question remains how to integrate the advantages of stability and the advantages of flexibility, simultaneously.

Answers to this question are already given by authors like Teece, Pisano & Shuen (1997) as well as Eisenhardt & Martin (2000). What is missing however is a discussion from the perspective of knowledge management based on a precise definition of explicit and non-explicit knowledge. Another missing link is the importance of informal knowledge transfer through social networks as a possibility to balance between the stable and dynamic dimension of core competencies and capabilities. We will focus on both aspects in this paper.

TRADITIONAL KNOWLEDGE MANAGEMENT STRATEGIES

"Knowing who" and also *"knowing who knows what"* is an important pillar when it comes to knowledge management strategies. According to empirical results of Hansen et al., (1999) two different strategic directions for knowledge management can be followed: In some companies, the strategy centers on the computer. Knowledge is carefully codified and stored in databases, where it can be accessed and used easily by anyone in the company. We call this the codification strategy. In other companies, knowledge is closely tied to the person who developed it and is shared mainly through direct person-to-person contacts. The chief purpose of computers at such companies is to help people communicate knowledge, not to store it. We call this the *"personalization strategy"* (Polyani, 1962:17). Also Dennis and Vessey (2005) identified these two strategic orientations for knowledge management as a result of their empirical study. They call the first one "knowledge hierarchies" and the second one "knowledge markets".

KNOWLEDGE COMMUNITIES AS SOCIAL NETWORKS

Both traditional knowledge management strategies as mentioned before undergo an extension if the focus on communities displaces the focus on the individual. This third strategy can be called "socialization strategy", or – with the words of Dennis and Vessey (2005) – "knowledge community". The aim here is to get access to explicit and non-explicit knowledge of non-hierarchical communities by tapping into their informal social trust-based network relationships.

When looking at knowledge communities we are taking on a social network perspective. Social network theories are the basis for social network analysis in which people and collective actors (e.g. organizations) are regarded not as "social islands" who are primarily be described by specific characteristics or attributes of single actors. Rather, a network approach looks at pairs of actors who are characterized by their relations with other actors: „A social network consists of a finite set or sets of actors and the relations defined on them.“ (Wasserman/Faust, 1994:20). Radcliff-Brown (1940) calls it the "social structure" of networks.

Besides the above described structural components of social networks, where researchers mainly study the impact of different positions within the overall net-

work on network outcome – it is also important to understand the actual content that flows through the network ties. In terms of knowledge management, the content of a tie represents the knowledge in form of resources and information that is being transmitted through the network ties. Relationships can therefore also be described as an "opportunity structure" through which connected actors have access to explicit or non-explicit knowledge. Besides the formal reporting structures in form of hierarchy through which mainly explicit or codified knowledge is transported, the informal aspect of information flow is important when it comes to knowledge networks. The structure enhances access to explicit as well as non-explicit knowledge that would otherwise not be accessible if the relationship does not exist. The network constrains as well as supports the diffusion of knowledge.

INTEGRATION OF STABLE AND DYNAMIC CAPABILITIES THROUGH SOCIAL NETWORKS

Social (knowledge transfer) networks as discussed above are informal in nature with regard to their character – they usually evolve bottom-up and overlap the formal and intended organizational structure. They allow for informal access to explicit as well as non-explicit knowledge.

Knowledge comprises cognitive-emotional capabilities as well as body-related skills, both in the sense of existing capacities in order to be able to take action (Senge 1990: 9). In so far, knowledge can be understood as *"knowing how and why"*. The "tacit dimension" of knowledge can be theoretically demarcated from the "explicit dimension" of knowledge by pointing to the fact that "(w)e can know more than we can tell" (Polanyi 1962: 5). Polanyi's thesis is that all knowledge is rooted in tacit knowledge (Polanyi 1966: 195). The difference however is that explicit knowledge is articulated, documented, directly accessible and relates to what is called "declarative knowledge" (Squire 1987) or "discursive consciousness" (Giddens 1984).

If explicit knowledge is exchanged or the procedural part of non-explicit knowledge (operational routines) is made explicit, social networks draw back on the "architectural competences" of corporations (Henderson/Cockburn, 1999; 2000). These competences stand for the advantages of stability and reliability.

If non-explicit knowledge in terms of creative expertise is made explicit within the social network, new problems drive the explication and as a result dynamic capabilities are the outcome of respective learning processes especially in the sense of double-loop and deuterio-learning and deuterio-learning (Argyris/Schön, 1978).

Therefore, social networks can either contribute to organizational core competencies or to dynamic capabilities of organizations. In so far, they are potentially an informal way of balancing the advantages of both concepts.

RESEARCH DESIGN

We suggest applying a multi-method research design: a quantitative survey of networking activities among members of an IT department, accompanied by interviews to prepare the questionnaire and understand the findings. We have chosen IT departments as an area where the tensions between stability (due to technological standards) and change (due to permanent technological evolution)

are very characteristic. We conducted preliminary interviews in a single company to be able to identify the relevant actors within the chosen IT department, consolidate common vocabulary used in the company, and to pretest our survey items. The quantitative survey was sent out to all employees within the IT department and we had a 90% response rate. One employee refused to answer questions regarding his professional ties.

In the questionnaire, we included two pairs of questions regarding the perceived information sharing (-> knowing that and what; explicit knowledge and procedural operative routines) and advice networks (-> knowing how and why; special creative expertise), asking for bidirectional ties for both networks types: "Who do you turn to for information/advice regarding IT Governance?"; and "Who turns to you for information/advice regarding IT Governance?". This allowed us to understand both the reciprocated ties as well as the uni-directional ties.

The main result of our research study is that the two different types of informal knowledge networks really exist and are overlapping the formal organizational hierarchy of the company. In addition to that, the informal information sharing network contributes to the stability of the IT department's capability with regard to the usage of ITIL. It stands for the explicit, declarative knowledge the department members share between each other about more than presently 30 ITIL volumes. Through this process of reinforcement, knowledge about ITIL is incrementally tuned and a common stable and reliable understanding of ITIL developed.

The informal advice network contributes to the dynamic capabilities of the IT department's knowledge about ITIL. Problems are seen as the source for detailed discussions about ITIL and further developments with regard to IT Governance. Respective advice takes place on the level of special creative expertise. The members of the department cannot simply remind themselves of routines but have to initiate creative processes of problem solving. Questions which have to be answered here are for example "How do I implement this with what consequences for whom?". Non-explicit knowledge except what was elaborated as "unconsciousness" is made explicit and shared between the members of the IT department. This dynamic process guarantees for the needed flexibility in the area of IT Governance.

Both explanations were confirmed by the department head when we presented our results and discussed the findings in the company.

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