IMAGINATION, RITUALS, AND EMPATHY AS INFLUENCING FACTORS ON KNOWLEDGE SHARING IN HIGH TURN-OVER INTER-ORGANIZATIONAL KNOWLEDGE NETWORKS

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Abstract

It seems that facilitating conditions for knowledge sharing, like a shared understanding, a common language as well as the multifold and direct relations between are idiosyncrasies of a knowledge network. However, these facilitating conditions are limited if a high turn over rate is involved in a knowledge network. As a consequence, capability differences between knowledge network members will influence the occurrence, direction, and results of the knowledge sharing. The question arises how to maintain knowledge network characteristics, e.g. stability? Therefore, further characteristics of knowledge, like knowledge representation, and further characteristics of knowledge sharing, like a process view, are to be taken into account.

The paper discusses influencing factors on knowledge sharing in an inter-organizational knowledge network. Furthermore, the paper provides an analysis of influencing factors on knowledge sharing in order to maintain a high performance of activities within the knowledge network using imagination, rituals, and empathy.

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Imagination, Rituals, and Empathy as Influencing Factors on Knowledge Sharing in High Turn-Over Inter-Organizational Knowledge Networks

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Suggested track:

D Knowledge sharing

1 Introduction:

Additionally, knowledge sharing is not a one-way activity, but an iterative process between the sender and receiver of knowledge (Szulanski, 1996). During the process the mental settings of sender of receiver of knowledge are being altered, and adjusted. Especially, sharing of tacit knowledge entails much of self-observation and reflection (Prosch & Polanyi, 1975). The sender act on the comments and behavior of the receiver, and the sender tries to understand proactively the receiver's interests.

Further characteristics of knowledge and knowledge sharing are to be taken into account in order to represent the knowledge and to enhance the absorptive capacity. Based on the idea of variation in human minds, there are multiple, interdependent dimensions to human understanding (Gardner, 1983). So beyond the different types of knowledge (Polanyi, 1966), the different modes of knowledge representation play a fundamental role in the meaning and practical use of knowledge (Worren et al., 2002). They distinguish between three primary modes, prepositional knowledge, narrative knowledge, and visual knowledge.

To obtain an answer we performed a review of literature dealing with knowledge sharing and knowledge networks. In that review we attempted to explore the role of influencing factors on knowledge sharing and absorptive capacity. A study based on semi-structured interviews describes the process and the influencing factors of knowledge sharing, i.e. imagination, rituals, and empathy. Furthermore, the present paper contributes to a process view of knowledge sharing by describing the knowledge transfer initiatives.

2 Theoretical background

2.1 Knowledge

It is evident from the current literature that the theoretical understanding of knowledge has gradually shifted from the conceptualization of knowledge typologies, such as tacit vs. explicit (Polanyi, 1966), procedural vs. declarative (M. Cohen & Bacdayan, 1996) 1996) and public vs. private knowledge (Matusik & Hill, 1998), towards the investigation of activity-based and process-specific knowledge. This is reflected in a growing number of studies which emphasize the utilization of knowledge through examining the underly-

ing processes such as creation (Ikujiro Nonaka & Takeuchi, 1995), integration (R. Grant, 1996a) and learning (Huber, 1991).

The literature distinguishes between an epistemological and an ontological dimension of knowledge (von Krogh et al., 1994). The epistemological dimension differentiates knowledge into explicit and implicit knowledge. This differentiation between explicit and implicit knowledge is, however, not a dichotomy, which would imply a clear distinction between them. Explicit and implicit knowledge builds rather the two idealistic ends of a spectrum of knowledge. Explicit knowledge can be expressed in words, it is the more easily expressed knowledge. Implicit knowledge at the other end of the spectrum is not easily expressed and highly personal. Implicit knowledge makes knowledge transfer and integration difficult. With the words of Polanyi (1966): We know more, than we can say".

The ontological dimension of knowledge makes a distinction between individual and collective knowledge. Collective knowledge, although, composed of individual knowledge, which is embedded in individuals, is more than the sum of all individual knowledge. Collective knowledge includes, e.g., organizational routines, a common language, or a shared culture (Brown & Duguid, 1991). "Collective […] knowledge is developed communally, over time, in interactions among individuals in the group. It exists more or less complete in the head of each other group member who has been completely socialized into the group." (Leonard & Sensiper, 1998).

Especially in an organizational context, collective knowledge plays an important role. Sharing a common collective knowledge facilitates co-operation within an organization. Individuals sharing a common language and a common practice can more easily transfer knowledge. They have a common cognitive ground to understand each other better and more precisely. Brown and Duguid (1998, p. 91) point out that a major part of knowledge is created by a collective action. In most the cases only individuals are able to transfer and generate knowledge, collective knowledge is create substitutionally by the individuals. According to Spender (1996, p. 51) is collective knowledge "[…] the most secure and strategically significant kind of organizational knowledge, […]".

The collective knowledge, however, is a two edged sword in having to integrate external knowledge. On the one hand, if the external knowledge or new external demands fall into domain of the existing collective knowledge than the collective knowledge can be a source of competitive advantage. On the other hand, collective knowledge poses a barrier to external knowledge integration, or at least collective knowledge can hinder an external knowledge creation. If external knowledge falls out of the domain of collec-

tive knowledge than the collective knowledge may become a competency trap or even a source of rigidity (Leonard-Barton, 1992).

Knowledge is more than “justify true belief”, knowledge enables a person to action and intelligence is an internalized action (Piaget, 1974). Knowledge is rooted in the body (Merleau-Ponty & Lefort, 1964). Knowledge construction builds on human’s bodily and neural predisposition. People preserve their individuality in the construction of their more or less idiosyncratic knowledge, including its emotional content, in interaction with their environment, in their individual life histories (Bandler & Grinder, 1988). Neural structures develop tentatively, and to some extent randomly, and are selected and reinforced on the basis of success in the physical and social environment (Edelmann, 1987). This leads to the pragmatic view of knowledge that truth and meaning are based on works, rather than on untestable claims of coherence with objective reality (Riempp, 2003, pp. 5). Knowledge is neither solely tacit nor solely explicit. Explicit and tacit knowledge build the end of a spectrum of knowledge. In most of the cases of knowledge sharing, knowledge lies between the extreme of tacit and explicit knowledge.

Knowledge sharing needs a shared understanding and overlapping of knowledge in order to be useful. Previous research shows that absorptive capacity is needed that knowledge sharing might be effective (W. M. Cohen & Levinthal, 1990). Earlier knowledge sharing enables to build a shared understanding and overlapping knowledge between the sender and the receiver of knowledge. Both the sender and receiver of knowledge can learn from past occasions how they are capable of sharing knowledge during a future occasion.

Absorption entails re-embedding codified knowledge codified knowledge in the largely tacit substrate of interpretation, in the web of beliefs. Thus, knowledge received is never identical “knowledge sent”. So in that sense, people will never perfectly “understand” each, which is a source of both error and learning in order to create a shared understanding. Knowledge only becomes practical for the “receiver” becomes practical knowledge when individuals can apply their own experience and contextual understanding to interpret the details and implication for action (Brown & Duguid, 1991; Weick, 1995).

Several studies with different perspectives were conducted during the last decades, e.g. technology transfer (e.g.Teece, 1981), external implicit knowledge transfer (Tushman & Katz, 1980), transfer of best practices and barriers (Szulanski, 1996, 2000), knowledge transfer in multinational corporations (Gupta & Govindarajan, 2000), and the barriers of knowledge transfer after acquisitions (Bresman et al., 1999). Fur-

thermore, studies on enabling conditions, like prior experience with knowledge sharing (Kogut, 1992; Wathne et al., 1996), motivation (Kriwet, 1997), and trust (Powell, 1998). Thus the linkage between learning and intra-firm cooperation and external knowledge on the performance as well as enabling conditions are quite well known. Less discussed however, are the processes by which knowledge is transferred and integrated and by which knowledge sharing can be proactively influenced. Although the importance of a process view on knowledge sharing has been highlighted recently (Szulanski, 2000).

2.2 Community

Communities are an instrument of knowledge management (Probst & Raub, 1997). Many practitioners and scholars regard them as a strategic instrument to overcome limitations residing in the inflexibility and lack of communication of traditional organizational forms such as functional or process-oriented organizations (von Krogh et al., 2001).

In particular, the concept of “community of practice” (Brown & Duguid, 1991; E. Wenger & Snyder, 2000) has extended the understanding of knowledge as abstract, formal and individual to something which is informal, collective and situated (Lave & Wenger, 1991). The significance of community of practice is reflected in the way in which tacit knowledge is shared through story telling and social interaction. It is argued by Brown and Duguid (1991), however, that a community of practice emerges naturally when members of the community are intellectually and emotionally aligned.

A knowledge network is a formally built structure for a longer period of time with the conscious intention of sharing knowledge between knowledge network participants (von Krogh et al., 2003). The term knowledge network is used “to signify a number of people, resources and relationships between them, who are assembled in order to accumulate and use knowledge primarily by means of knowledge creation and transfer processes, for the purpose of creating value” (Seufert et al., 1999b, pp. 12).

Knowledge network focuses on the members’ knowledge exchange. They are social networks, which can be defined as “a specific set of linkages among a defined set of actors, with the additional property that the characteristics of these as a whole may be used to interpret the social behavior of the actors involved” (Mitchell, 1969, p. 2). A network builds a context for relationships between the actors.

Besides the context for relationships, the knowledge network offers a structure for knowledge sharing. Structure is a configuration of relations in an institutional environment. It is the basis and the result of processes of interaction (Giddens, 1984). According to the idea of structuration, structure enables and constraints action of knowledge network participants, and the action of the participants reconstruct structure of a knowledge network. Knowledge networks enable and constrain activities of participants and ties between them.

Although knowledge network actions focus on a deliberate knowledge sharing, participants of the knowledge network posses an immanent ability to carry out action within the structure of a knowledge network in order to influence knowledge sharing. “Human agents or actors […] have, as an inherent aspect of what they do, the capacity to understand what they do while they do it. The reflexive capabilities of the human actor are characteristically involved in a continuous manner with the flow of day-to-day conduct in the context of social activity. But reflexivity operates only partly on a discursive level. What agents know about what they do, and why they do – their knowledgeability as agents – is largely carried in practical consciousness” (Giddens, 1984, pp. xxii).

Knowledge Networks are not simply designed and implemented once and for all. They arise with some design, but also as deliberate function of intention, then they adapt for purposes of the task to be solved and the background of participants, and at some point they end (Enkel, 2003). Each of the temporal phases induce a different level of performance, which is depicted by the visibility of the knowledge network, task performance, and interest (Etienne Wenger et al., 2002, pp. 68).

The dynamics of a knowledge network not only arise an important challenge in governing as well as in keeping knowledge network alive but the dynamics enable to learn from past event. Knowledge network participants adjusted their actions based on past actions in order to influence future actions (Giddens, 1984, p. 5).

2.3 Knowledge Sharing

Knowledge gains value when it is shared (Wilke & Krück, 2001), thus knowledge transfer as research object is not new, several studies with different emphasize were conducted during the last decades (e.g. Arrow 1969; Teece 1977; Katz & Allen 1982; Szulanski 1996; (Gupta & Govindarajan, 2000), but is still an actual research object (von Krogh, 2002). One reason is that creating and managing information and knowledge

flows enhances company's performance (W. M. Cohen & Levinthal, 1990; I. Nonaka, 1994), as knowledge is of limited organizational value if is it is not shared. The ability to integrate and apply knowledge of organizational members is fundamental to company's ability and sustains competitive advantage (R. M. Grant, 1996b). In an era when continuous organizational learning and relentless performance improvement are needed to remain competitive, companies must increasingly resort to the internal transfer of capabilities (Szulanski, 1996).

According to Szulanski (1996), a knowledge transfer process can be divided into four steps, as follows: Initiation, implementation, ramp-up, and integration. Initiation is the starting point of knowledge transfer. The initiation is triggered when a need for knowledge and existing knowledge within the organization is discovered, and the knowledge seeker is evaluating its value for him. The subsequent step is the implementation, it begins with the decision to transfer the knowledge, and includes the knowledge flow between the source and the recipient. Ramp-up starts with the use of the knowledge being transferred. The transferred new knowledge has to be proved useful and has to be adapted by the recipient, this step is the learning process with the new knowledge. Integration, as the last step, begins when the transferred knowledge gained satisfactory results by the recipient, and it is embedded within his or her working routines.

Various impacts influence knowledge transfer. E.g., positive impact on knowledge transfer has opportunity structure, care, and authenticity (von Krogh, 2002), especially if there is a discrepancy in collective interest between the source and the target. Gupta and Govindarajan (2000) considered in their study the value of imparted knowledge for the source, motivational disposition of the source and of the recipient, existence and richness of transformation channels, and absorptive capacity of the recipient unit in order to knowledge sharing. Furthermore, Constant et al.'s (1994) theory of information sharing revealed that information sharing is affected by rational self interest and the social and organizational context.

3 Research Methodology:

The research is based on a case study of a research institute and its knowledge transfer between the partner companies undertaken in 2002. Data was collected through semi-structured interviews which were conducted with eleven research associates during a timeframe of two months each lasting on average 60 minutes. Subsequently, on-

site observation allowed an in-depth understanding of the knowledge transfer and the methods used.

To achieve our objective, we analyzed three existing knowledge networks each of which is an inter-organizational expert network consisting of experts from different companies. To analyze the knowledge transfer in the three knowledge networks we used a case study method (Yin, 1994).

4 Case:

The considered research institute provides applied research in the form of cooperating with companies. Each of the research streams is summarized in a Competence Center. A Competence Center (CC) is a knowledge network between the chairs of the Institute of Information Management of the University of St. Gallen (IWI-HSG) and several employees of various international companies (mainly coming from German speaking countries). The aim of this network is the development and transfer of knowledge in the areas of supply chain, customer relationship management, knowledge management, and database management.

Generally, a Competence Center consists of a core team – a project manager and researchers of the IWI-HSG – and several employees of the participating companies (participants). The network has a steering committee on which each participating company is represented. The steering committee meets biannually to discuss the network's research alignment.

The task of the core team is to develop knowledge that the participants can use within their companies, while the knowledge network as such should support its participants' work processes. There are different modes of knowledge exchange between the core team and participants: workshops, project work / action research, case study research, and literature research.

Workshops are conducted four times a year and deal with varying topics and varying participants. During a workshop the core team members present state-of-the art concepts and future trends, whereas the participants report on the status of related projects in their companies and the challenges that they currently face. The core team and participants also take part in group work to transfer knowledge on an area of research. Workshops therefore aim at building the space for knowledge sharing from the core team to the participants and vice versa.

A further space for knowledge sharing builds projects; the core team members also support the employees of the participating companies through projects within their respective companies. Thos project support occurs by means of an action research framework. The core team also carries out case study research within the companies belonging to the network. Literature research for these companies complements the space for knowledge transfer.

A shared view on knowledge networks in the literature seems to be that knowledge network members have a common interest in knowledge sharing (Seufert et al., 1999a; Etienne Wenger, 1997). Knowledge network's members develop a shared understanding and a common language. Furthermore, manifold and direct relations between knowledge network members enable an interaction. In consequence these enabling conditions can enable knowledge sharing (von Krogh, 2003).

These enabling conditions, however, are limited if a high turnover rate or tacit knowledge are involved in knowledge sharing within a knowledge network. Thus, the cognitive distance between the knowledge network's members, which builds the basis for the knowledge network formation (Bart Nooteboom, 2000), entails sharing problems. Therefore, not only the immanent character of knowledge put difficulties on the knowledge sharing (von Hippel, 1994), but also the absorptive capacity was found to be an important determinant of knowledge sharing (Lane, 1998; Tsai, 2001), since absorptive capacity is a function of prior knowledge (W. M. Cohen & Levinthal, 1990). This becomes problematic when the extent of absorptive capacity is too small among knowledge network's members aiming at knowledge sharing.

From both sides the cooperation has to be valuable, since the companies contribute a bigger amount of money, and the research assistant gains research data for their academic work. One of the most important point is that relationships between the core team and the employees as well as the relationships between the participants should be seen as processes rather than entities that are instituted and left to themselves. Conditions within the partner companies as well as within the core team may change. For instance, a relationship starts with a balance of dependence, e.g. a participant takes stock in the research of the core team and core team relates on the empirical data, but in time the attractiveness of one of the partner can decrease, due to appropriation his knowledge by the other partner, institutional or economic change.

An additional impediment in the dyadic relationship between the core team and the participants is the newness of the ideas, concepts, or prototypes, i.e. new solutions, which are developed during the projects or research by the core team. The knowledge

network aims at sharing new solutions; the new solutions yield both a challenge and an opportunity (B. Nooteboom, 1999). The opportunity is that the participants learn from the core team only when they see and know things differently. The challenge is, however, that owing to the newness participants may not understand the new solutions, and have to invest in shared understanding. From the point of view of the core team, the new solutions are difficult to communicate by the core team.

Besides the dyadic relationship between a participant and the core team challenges arise in a network relationship. This imposes a steady trade-off dealing with relational risks, hidden agendas, and maintaining trust and interest within the knowledge network. The participants are not a homogenous group of people. they differ in several aspects. Although the participants are experts in their field they have different professional backgrounds. The participants might have an agenda, like personal reputation, disinterest in another challenge. Risks of spill-over might arise if participants' companies diverge in the development status.

Subsequently participants are changing, due to the fact that they represent in the knowledge network their companies and alter according to the theme of the projects and workshops. The competencies and intentions of strangers are difficult to judge. Relevant reputation has not yet been built up. There is a significant hold-up risk. Another pitfall in the beginning of a new relationship is to be too closed, revealing as little information as possible, on the intuition that any information might be taken advantage of by the other participants.

Under these circumstances building trust and a shared understanding among the participants for the purpose of knowledge sharing is difficult task to be solved. Two problems may entail (Deutsch, 1973). First, it may lead to a vicious circle of constraints on action that limit the knowledge network potential for knowledge sharing. Second, a suspicious stance at the beginning of a knowledge network or due to a newcomer may become a norm, which sets expectations, from which only incremental changes are made, and which is difficult to turn around once it is established.

Despite the fact that a research assistant is responsible for the contact to one company during her time in the Competence Center, the participants are changing during the workshops and project in dependence of the topic to be presented or to be solved within the partner company. Under these circumstances building trust, development of a common knowledge and similar culture is difficult due to changing participants. Building a relationship enabling knowledge transfer requires stability.

5 Analysis and Discussion

Building a shared understanding thus utilizing absorptive capacity entails a stable relationship and thus time in order to profit from previous knowledge sharing. Knowledge sharing participants necessitate at least one earlier encounter during which they have been able to experience the other participant. So prior relation there may be a basis for trust, in reputation, institutional safeguards and attribution of competences and intentions on the basis of observable characteristics (Zucker, 1986). To the extent that there is no prior basis for factors influencing knowledge sharing, e.g. trust, common language, it has to be built up in specific relationship. This is more salient to the extent that uncertainty is larger, i.e. a high-turn-over rate. In a high-turn over network participants alter frequently (here a better explanation of this circumstances), thus a stable relationship between knowledge sharing participants is hardly possible. Thus further means are required building appropriates factors for knowledge sharing under conditions of high-turn-over rates in inter-organizational knowledge network.

Rituals, empathy and imagination assemble a preliminary stage of a shared understanding among the participants and the core team of the inter-organizational knowledge network. A shared understanding of the information sent and to be received and established in a short period of time is crucial in a high-turn-over rate.

5.1 Rituals

Rituals are usually related to pagan rituals and religious ceremonies. In broader sense rituals include formalized behavior, a set sequence of actions that are usually repeated. Ritual actions most often take on great depth of social meaning, and typically are performed in response to some perceived need, desire, or intent on the part of individual or group. Rituals function as a mediator of social relations.

As argued by Herbert Simon (Simon, 1991), due to bounded rationality, in the sense of limited cognitive capacity, much behavior is routinized, and automatic, in the sense of unreflected, and largely based on tacit knowledge, in subsidiary rather than deliberate awareness (Polanyi, 1966). Routinized behavior is rational in the sense of being adaptive for subjectively more important environmental influences: it helps human beings to function and survive in a world of uncertainty and bounded rationality. Whereby, an

activity becomes routinized when it has proved to be consistently adequate, or satisfying the intention of an individual or a group. The routine is relegated to subsidiary consciousness.

To an extent rituals reflect a degree of routine. According to (Michaels, 1999, p. 30) rituals are depicted and deviate from routine by four aspects. Rituals are characterized by a formally decision made by the members of the community; thus rituals are carried out deliberately and intentionally. Rituals reflect the community which creates the rituals, and the rituals are related to the community. Rituals fulfill a formally set criterion of action; rituals have to be public within the community, repetitive, and formal. Rituals aim at transcending everyday life to a purposefully set environment.

Rituals in general are crucial in living together of human beings, since rituals provide an opportunity for dealing with of fundamental challenges of existence, e.g. need of explanation, need of orderliness, and need of security. Rituals are a means of simplification of the world and of decreasing complexity. Their specific implementation, however, is coined by the groups' conceivability respectively; they are cultural constructs (Wallace, 1966, p. 70-71).

A common thread in both definitions is those of intended action and directedness. (Lukes, 1975) defines rituals as "rule-governed activity of a symbolic character which draws the attention of its participants to objects of thought and feeling which they hold to be of special significance." The definition of (Alexander, 1997, p. 139) definition emphasized a transition into a alternative state: "Ritual in general and a broader sense is a purposed or improvised performance, which affect a transition of every day life into an alternative context by transforming everyday life."

Two kinds of rituals are performed: a temporal ritual and event oriented. The temporal ritual is characterized by regular workshops which are held in specific and changing locations. The participants are therefore disturbed by their daily business. The regularity of the workshops enables a familiarization, which becomes a fix date in the participants and core team everyday life. The specific and changing locations of the workshop transcend participants' daily business. Furthermore, the separation from the outside world creates a feeling of a specific circle of people.

The event oriented rituals are observed during the workshops and to legitimize and familiarize new participants with the established group. The workshop's agenda is most of the cases identical to the previous workshops, unless the topic of the research and speakers are changed. Thus, new participants are able to grasp the course of action of

a workshop immediately. New participants are invited to present their challenges and to share their experience according to the topic of the workshop.

5.2 Imagination

The importance of imagination is manifold. For instance, Egan (Egan, 1992) argues that imagination plays a key role in the learning process. Subsequently, imagination springs from current knowledge where memory is used to recall that knowledge. At issue is providing adequate stimulus to activate the memory and the knowledge base (Egan, 1992). Sutton-Smith (1988) concludes that imagination helps provide meaning to experience and understanding to knowledge. Thus, imagination offers understanding that goes beyond facts. Sutton-Smith (1988, p. 22) claims that people make sense of the world and of their experiences in narratives and that individuals recall items in narrative structures better than in logically lists. This is consistent with knowledge management initiatives facilitating knowledge sharing per se (Swap & Leonard, 2001).

De Bono (1991) differentiates four aspects of imagination: picture vividness, number of alternatives, different ways of looking at something, and creative imagination.

Picture vividness deals in imagery with details richness and is generally a conscious act. Number of alternatives favors getting knowledge over having knowledge, knowledge not possessed at the outset of the stimulus, is an act of levering current knowledge into new knowledge. Different ways of looking at something addresses perspectives and perceptions, which in turn are driven by mental model (see also Senge, 1994). Creative imagination involves fantasy and the ability to picture something which as not been experienced directly. It is a matter of putting things together to create a new experience. Thus, the last aspect emphasizes the cooperation and exchange of ideas among the people.

The primary purpose of using imagination was stated as: Allow the participants during the workshops and in the projects understanding new ideas, concepts, and prototypes. The core team uses all four aspects in order to enhance imagination among the participants. Key elements of imagination were prototypes and demonstration of new information and communication tools. These tools exemplify not only a new gadget, but these tools depicted the new ideas and concepts of the core team. In contrast, another core team working mostly with abstract concepts claimed that their results were seldom

reading and that the attention of the people during the workshops is focused on the evening event, during which networking and sportive activities took place.

Core team members stated that another feature enhances imagination during workshops is the use of examples and little success stories, which based on their ideas and concepts implemented within partner companies. These examples and little success stories were usually presented by the participant coming from the according company. The involvement of the participant provides a raise of core team's reputation, since a neutral person presents their success; furthermore, the participant could add his view on the success of the work and the concept done by the core team. New participants are specially invited to present their experience with the new concepts or ideas.

An involvement in moderated group work sessions aims at the creative imagination of the participants and the core team. Moderated group work sessions build an inherent part of the workshops. Participants are directly involved in problem solving, which allows contributing their experience and thus, direct knowledge sharing.

5.3 Empathy

Since knowledge is personal and context specific every person creates its own understanding of the received information, an understanding of the other persons. There are at least three different possibilities to describe ones knowledge: from the point of view of the "sender' of knowledge", from the point of view of the "receiver of knowledge", and from a point of view of a neutral person. In communication, expressions of the "sender of knowledge" have to be directed to the absorptive capacity of the "receiver of knowledge" in order to be understood and effected an action. For this reason, the sender needs communicative ability and some knowledge of how another thinks, which is called empathy (Delhees, 1994, pp. 272). In other words, empathy is the ability to communicate and lead by understanding other thoughts, views, and feelings.

Another important side of empathy is that it is a precursor of trust and enabler of knowledge transfer in a dyadic relationship. Empathy and identification with play an important role in the building of trust (Lewicki & Bunker, 1996; McAllister, 1995). Trust can overcome initial wrong perception towards new participants and inhibit the vicious circle of lack of reputation, spill-over risks, and relational risk.

Core team members use empathy more in an unconscious way. But they stated that they try to match their presentation with the participants' professional backgrounds and

experience. They stated that “we try to fetch the audience”. Core team members use, however, deliberately past experience with the participants, e.g. in the project work, previous workshops, to align their presentation of new concepts and new ideas with the experience and terminology of the participants’ companies. The adoption of participants’ terminology is used in the project work. Thus, the core team members play the role of a primus inter pares, and not to induce their own knowledge on the participants’ knowledge.

6 Summary and Outlook

The above discussion has elaborated details related to knowledge sharing in a high-turn-over inter-organizational knowledge network between a research institute and several companies. Three influencing factors generated by the study have suggested that the process of knowledge sharing with a high-turn-over knowledge network community of practice context is not merely a static activity. Instead, it is an activity that is characterized by the use of rituals, imagination, and empathy.

The major contribution of the study is an investigation of a very particular form of cooperation taking place between a research institute and a number of companies. It is a formally built knowledge network. The objective of the knowledge network is a deliberate knowledge sharing. The investigation and analysis of knowledge sharing in this knowledge network in general and the influencing factors could provide insights into the construction of the inter-organizational knowledge network and involved mechanism of interaction between network members in particular.

In addition to the theoretical contributions, the study also has some managerial contributions. First, it provides an example of how an inter-organizational knowledge network can be organized as a compliment to the formal divisionalization of expertise and span the boundaries of an organization. Insights generated from this knowledge network can help organizations, in particular those engaged in inter-organizational networks, to reconsider the issue of how knowledge sharing can be enhanced through the organization of workshops and projects. Second, new knowledge caused by turnover has inevitably become problematic for some organizations. The way in which new participants’ experience and knowledge was incorporated in the knowledge has demonstrated an approach to actively prevent misunderstanding, spill-over and relational risks. Such an approach can be a useful and effective solution for organizations, which are gradually

facing the problem of knowledge loss due to the retirement of personnel and integration new knowledge.

This study is limited in the sense that knowledge sharing was observed and investigated from the point of view of the core team of the knowledge network. Further, investigation is needed to consider the participants' point of view revealing further insights and usefulness of the approaches used by the core team. Additionally, analogues knowledge network's structure and relation have to be investigated and analyzed in order to pose the statements on a broader basis. This study claims an explorative and qualitative character, thus a more in-depth and quantitative study ought to divulge an correlation between the measures undertaken by the core team and the success of knowledge sharing.

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