



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Tacit Knowledge Sharing and Dissemination in Audit Firms

Linh Nguyen Thi Thuy

Graduate School
Master of Science in Management
Master Degree Project No. 2011:127
Supervisor: Elena Raviola

Tacit Knowledge Sharing and Dissemination in Audit Firms

Author: Linh Nguyen Thi Thuy

Supervisor: Dr. Elena Raviola

ABSTRACT

This paper investigates how tacit knowledge, especially experience and know-how, is transferred and disseminated among auditors in audit firms in Sweden and Vietnam. Basing on a qualitative study, mainly through interviews, the paper seeks to contribute to knowledge management research by providing empirical evidence on how such organizations enable knowledge sharing behavior to create a shared environment, thus ensuring a successful auditing process. The research reveals that audit firms enable tacit knowledge sharing and dissemination by implicitly employing communities of practice. These firms also implicitly use four modes of knowledge conversion: *socialization*, *externalization*, *combination* and *internalization*, in a shared context (*ba*). Sharing tacit know-how therefore becomes a critical factor to success and is arguably the best way for auditors to reflect and share knowledge. The paper recommends that tacit knowledge needs to be conveyed through daily contextual interactions to nurture organizational knowledge. In its conclusion, the paper encourages the widespread use of these knowledge sharing models, considering their multiple benefits in creating value for employees and customers, and the influence on organizational performances.

Keywords: tacit knowledge, knowledge sharing, knowledge management, audit firms, communities of practice

INTRODUCTION

Auditing is an important aspect of managing an organization. Auditing is a powerful tool for management to review “the adequacy of their governance, risk management and internal control arrangements” (Pickett & Pickett 2005:1). According to Serrat (2008:4), responsibilities of auditors are “to provide tangible evidence of what knowledge an organization needs, where that knowledge is, how it is being used, what problems and difficulties exist, and what improvements

can be made”. Although many large organizations have internal audit teams, there is often a requirement to include external auditors to avoid subjective judgments and provide objective consultancies for board members (Tricker 2009). Good audit opinions can provide their clients management problems and recommendations to solve the problems and to improve their business operation. This suggests the significant role of audit firms in business.

Moreover, constant development of the regulatory environment and new auditing standards puts pressure on audit firms to enhance the quality and effectiveness of their audit process. Auditors must involve themselves in a variety of audit engagements¹ which differ in terms of industry and complexity. For example, a new auditor may be knowledgeable about the new regulations and auditing standards, but (s)he may not be confident in determining how to apply them to new industries, or how to deal with risk assessments and related problems in the first place. The ability to assess risks and provide operational problems as well as consultancies in such circumstances is mirrored in their professional judgment inherent in experience and tacit knowledge. The ways by which audit firms manage this personal knowledge becomes a critical factor. Hence, the purpose of this study is to understand the sharing and dissemination of tacit knowledge in audit firms, and how firms internally enable knowledge sharing and dissemination to ensure organizational performance and quality of the audit process.

Polanyi (1967:4) first explores the concept of tacit knowledge as “we can know more than we can tell” when discussing about the tacit knowing of human beings. The success of any work greatly depends on the know-how or knowledge insights of individuals (Holden & Glisby 2010). For example, one might know which steps to take in an auditing process by instructions or from training, but might be challenged to apply that knowledge to assess frauds, predict risks and solve unexpected problems. An engineer might carry out his daily task well but might not be able to describe the know-how (s)he possesses to others. Polanyi (1958) calls this know-how *personal knowledge*. Personal knowledge, also tacit knowledge, plays a critical role in ensuring organizational performance and competitive advantage. It becomes the most significant strategic resource and the only renewable and sustainable base for an organization’s activities and competitiveness (Grant 1996; Nonaka 1991). Tacit knowledge also enables innovation (Lam 2000), learning (ibid), new product creation (Krogh et al 2000) and product development (Kreiner 2002) in an organization. Thus, how to exploit and use this type of knowledge is a critical matter for any organization.

The above perspectives suggest that the sharing and dissemination of tacit knowledge are crucial aspects to the inheritance and continuity of organizational knowledge. The transfer of tacit knowledge is particularly beneficial in the support of new employees to continue the ongoing duties and tasks, should colleagues leave the organization for any reason. As Baumard (1999:21) remarks “Any knowledge or know-how that a firm has which its rivals do not is at stake in the competition”. Many organizations lose their expertise and the know-how of

¹ The times auditors out to provide auditing services for clients

individuals to competitors when their employees leave. Today's increasingly competitive business and labor market deepens the gravity of this problem.

Transforming individual knowledge into organizational knowledge so that it becomes an organizational asset that groups can use and further develop is an important process in knowledge management. Individual knowledge remains most tacit if the individual does not share the knowledge (s)he possesses (Muskopf 2009). The process of knowledge transformation involves a chain of events, from tacit-individual knowledge to explicit-individual knowledge and then explicit-collective knowledge (Baumard 1999). A critical factor here is how to trigger the tacit dimension in individuals and encourage them to them make their personal knowledge explicit. This transition requires interactions between tacit and explicit knowledge. Nonaka and Takeuchi (1995) argue that the creation and expansion of human knowledge are made through social interactions between tacit knowledge and explicit knowledge. This suggests the transition from individual knowledge to organizational knowledge involves interactions between tacit knowledge with explicit knowledge among individuals, and between individuals and groups to which they belong.

Nevertheless, tacit knowledge remains the least understood resource among other organizational resources (Holden & Glisby 2010) and is still overlooked in organizations (Howells 1996; Fleck 1996). Because tacit knowledge is embedded in and possessed by individuals, it is a major challenge for management to acknowledge the potential of tacit knowledge, and to codify and valorize it as organizational knowledge. Moreover, tacit knowledge is constantly changing because of work requirements and contextual factors. Holden and Glisby (2010:31) stress that when tacit knowledge is activated, "it is always being reshaped to suit somebody's context" and it appears to change once it progresses through networks. This continuous change of tacit knowledge might require either an articulation or continuous exchange in the organization. How to enable tacit knowledge sharing in order to disseminate know-how within the organization thus poses challenges to managers, especially in knowledge-based organizations such as audit firms. This study will focus on audit and accounting consultant firms, in which knowledge management is crucial to auditors to provide quality audit service.

The review of the literature aims to examine how tacit knowledge is theorized and how these perceptions might affect tacit knowledge sharing and dissemination in practice. Definitions of the tacit knowledge concept and other theoretical perspectives in different lines of literature will be discussed and will serve as the theoretical framework of this paper. Discussions will also highlight important approaches that facilitate knowledge sharing and dissemination within an organization. The study uses a qualitative approach, in which findings from interviews with four audit firms in Sweden and Vietnam serve as the empirical contribution to give answer to the research question. Throughout its discussions, the paper will highlight the main findings of the study and provide some managerial implications and contributions.

THEORETICAL FRAMEWORK

Tacit and explicit knowledge

Whereas explicit knowledge is codifiable and transmissible into formal language such as documents, the tacit component of knowledge is highly personal and difficult to express in words. Baumard (1999) defines the tacit dimension of knowledge as something we know but we cannot express. For instance, many people know how to drive and explain how to drive but the way people deal with various traffic situations while driving depends on a person's tacit skills. It is often difficult to describe or convey that tacit knowledge to others. The tacit of knowing is accumulated by the practical experience of doing things. Polanyi (1967) remarks that tacit and explicit knowledge are two aspects of knowing, of which the former is more practical and the later is more intellectual. The tacit aspect is "knowing how" something we are in the act of doing, while the explicit is "knowing what" can be transmitted into written words or documents (Gilbert Ryle, cited in Polanyi 1967; 1959). This distinction refers to the nature of human knowledge, in which the acquisition of tacit knowledge is captured only when individuals reflect on their own actions. These two aspects of knowing are combined in the human brain and "neither is ever present without the other" (Polanyi 1967:7). The tacit and the explicit cooperate to enable human beings to act and accomplish their work. However, tacit knowledge is the foundation of all knowledge and plays a critical role in facilitating explicit knowledge:

While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is either tacit or rooted in tacit knowledge. A wholly explicit knowledge is unthinkable (Polanyi 1969:144)

The tacit component of personal knowledge, thus, is central to all knowledge and needs to combine with the explicit part. Discussing the participation of tacit knowledge in articulation, Polanyi notes that it is impossible to articulate this tacitness when one's tacit predominates in his knowledge. He calls this "ineffable domain" of knowledge to indicate the instance when someone knows how to do something but is unable to describe how to do it. Tacitness set in human knowledge is experience, learning, skills, ability and beliefs that are hard for one to utter. In his book *Personal knowledge: towards a post-critical philosophy*, Polanyi (1958) points out the relationship of thought and speech to refer to the difficulties of making tacit explicit, and to emphasize the role of language in communicating tacit knowledge. Communication, although not explicitly mentioned, is thus a crucial factor in articulating tacit knowledge despite being problematic.

Ikujiro Nonaka and other authors extend Polanyi's work on personal knowledge to a new field of organizational knowledge in the 1990s. They characterize tacit knowledge as "highly personal and hard to formalize, making it difficult to communicate or to share with others" (Nonaka & Takeuchi 1995:8). This is similar to Polanyi's definition. Baumard (1999:23) remarks that non-communicability makes tacit knowledge distinctive from objective knowledge, while Nonaka and Takeuchi (1995) believe that tacit knowledge is subjective perceptions that

one has and is deeply rooted in one's action, experience, value and belief. These common definitions of the concept clearly confirm the tacit dimension that exists in personal knowledge.

Nonaka and Takeuchi (1995) segment tacit knowledge into two dimensions: technical and cognitive. Whereas the technical dimension relates to know-how and skills of workers, the cognitive includes schema, mental models, beliefs and perceptions (ibid). The technical dimension or technical know-how, according to Baumard (1999) can be protected as belonging to the firm. However, it is difficult for the firm to perceive and acquire the cognitive side of tacit knowledge because of its non-expression characteristic (ibid). Many emphasize the non-communication of tacit knowledge and its power as a mystery for organizational innovation. In contrast, some others suppose this is the "mighty claims" (Holden & Glisby 2010:48) of tacit knowledge and a more mythological epistemology than practical (Styhre 2003). The exploitation and articulation of tacit knowledge is possible provided management assigns it a high organizational priority.

Nonaka and Takeuchi (1995) stress knowledge creation by converting tacit knowledge into explicit knowledge that further facilitates innovation in the organization. The role of interaction and communication among individuals in groups or organizations is important in sharing tacit knowledge; hence, creating new knowledge. Describing tacit knowledge as "a form of knowledge that is highly personal and context specific and deeply rooted in individual experiences, ideas, values and emotions", Gourlay (2002:2) emphasizes the idea of "knowledge culture" that organizations should focus on creating to encourage learning, creation, and sharing of knowledge.

Tacit knowledge is clearly a critical factor for daily management activities in organizations. They should thus generate, maintain and accumulate tacit knowledge through action in a specific context (Werr & Stjernberg 2003). The accumulation of tacit knowledge is dependent on individuals and linked to a specific context (ibid). These authors (2003) suggest that organizations can disseminate tacit knowledge in different ways such as social interaction in 'the doing' through story telling within communities of practice, or other knowledge sharing methods. Some noteworthy approaches to dissemination and transfer of tacit knowledge proposed by researchers and practitioners will be highlighted in the next section.

Tacit knowledge transfer and dissemination

This section will highlight some important and influential concepts that directly concern the transfer and dissemination of tacit knowledge from individuals to groups and organizational levels. The first concept is communities of practice, which is significant for the tacit knowledge transfer in organizations. The second concept is the notion of shared space (*ba*) or the model of knowledge conversion (SECI), which refers to the sharing and creation of knowledge in the

organization. SECI² interactions in communities of practice will serve as the conceptual framework for the study.

Communities of practice

Communities of practice is one of the most influential concepts in knowledge management literature. Lave and Wenger (1991) first introduce community of practice to legitimize informal ways of sharing and disseminating tacit knowledge. It is defined as “groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.” (Wenger et al 2002:4). McDermott (1999:34) describes a community of practice as “a group that shares knowledge, learns together and creates common practices”.

The concept derives from the situated perspective which refers to the creation and management of knowledge through everyday practices at workplaces, particularly the interaction between masters and apprentices as a traditional model of tacit knowledge exchange (Lave & Wenger 1991; Patriotta 2003; Wenger et al 2002). Such interactions facilitate the sharing and learning of knowledge, wherein the master tries to express what (s)he has learnt to the student. Hislop (2005:59) argues that the community of practice concept is based on two central principles: the practice-based perspective of knowledge and the group based-character of organizational activity. While the former stresses the importance of practice that connects ‘doing’ with ‘knowing’ (Gherardi 2000:218), the latter emphasizes the collective aspect of organizational activities in which interactions and coordination between members in organizations continuously take place.

Communities of practice take many forms, varying in numbers of members who have passion for the topic, motivate their communities, and provide intellectual and social leadership (Wenger & Snyder 2000). Their span of existence can be short or long, and they can be collocated or distributed. Members of these communities range from baseline practitioners to consultants and frontline managers with the same interests. All want to openly and creatively share their experiences and knowledge to foster approaches to problem solving (Wenger & Snyder 2000).

Communities of practice can exist in both public places such as meetings and websites and private space such as one-on-one networking of members (Wenger et al 2002). Activities within communities may be diverse, including informal meetings, narratives, and storytelling. Among these, narratives are seen as providing effective “sense-making tools” that enable learning through stories, and foster knowledge transfer and creation (Patriotta 2003). The support of technology such as intranet-based facilities is important to the formation of distributed communities (McKenzie & van Winkelen 2004). Many communities tend to make use of technology such as electronic mail and intranets to communicate more frequently than by using

² SECI is abbreviation for socialization, externalization, combination and internalization.

face-to-face meetings. Nonetheless, this approach may limit the transfer of tacit knowledge within these communities when people do not interact in person.

The community of practice allows newcomers to be more participatory in the organization. It creates the environment for them to fully involve themselves in the socio-cultural practices of their community so that they can master the knowledge and skills (Lave and Wenger 1991:29). Lave and Wenger (ibid) use the term 'legitimate peripheral participation' to characterize the process in which new members start from peripheral affiliates, learn, and acquire knowledge until they fully participate.

Even though there are varied forms of communities of practice, they have one basic structure in common. A community of practice is composed of a *domain* of knowledge, a *community* of people, and a shared *practice* (Wenger et al 2002). First, the *domain* of knowledge is a set of issues or problems that members commonly experience. It creates a common ground and a sense of identity among community members (Wenger et al 2002). For example, an audit firm might start a community around 'auditing skills' for all auditors to discuss and share their experiences. The domain of auditing is the focused professional area that inspires its members and provides the fundamental foundation of relevant issues to auditors as community members. Second, the *community* consists of people who care for this domain and interact, learn together, and build relationships; and in the process develop a sense of belonging and mutual commitment (Wenger et al 2002:34). Regular and continuous interactions among members are crucial for building a community of practice. Lastly, in order to effectively make use of communities of practice, members communicate and share their knowledge in different ways, such as stories, cases, theories, experience, frameworks, and good practices. In that sense, the shared *practice* creates baseline knowledge relating to issues or problems that interest members, and enables them to share and solve problems together. The shared and discussed knowledge can be both the tacit and the explicit aspects of the community's knowledge (Wenger et al 2002). Thus, the shared practice serves as a main platform for knowledge sharing and creation in the community of practice.

How to develop and sustain these communities overtime is a challenge for organizations. Identifying potential communities of practice for knowledge sharing and developing these communities mean providing infrastructure and enabling members to apply their expertise effectively (Wenger & Snyder 2000). There are also critical factors that affect the success of these communities, such as individuals' impetus to participate and share their knowledge, and the willingness of the organization to support these communities (McKenzie & van Winkelen 2004). It is crucial to consider the alignment between the delivery of value for both individuals and organizations (ibid). Communities of practice need a clear purpose and support from the organization, as the former enables community members to know what knowledge to pay attention to and the latter encourages all activities by providing facilities and other communication tools. Moreover, a pro-active leader in the community who is expert in the subject area and respected by others is significant for an effective community. Wenger et al

(2002) advises organizations to use coaching for community leaders so the community can reach its full potential. A support team should be formulated to provide coaching for community leaders and guidance in designing community problem-solving sessions and innovation projects (Wenger et al 2002). Peer-to-peer coaching across communities is another suggestion to effectively share knowledge.

Although developing communities of practice can be a key to the success of knowledge management initiatives (Hislop 2005), there is only modest insight of how communities of practice are formulated and there are no longitudinal studies of communities of practice formation within organizations (ibid). McDermott advises that organizations should “develop natural knowledge communities without formalizing them” (1999:110). Ward also thinks communities of practice should be “tended and nurtured rather than commanded and controlled” (2000:4). However, Hislop (2005) argues that these advices are somehow vague and lacking in specific details for practitioners to follow.

Communities of practice have disadvantages that might hinder organizational knowledge processes. First, there may be potential conflicts in the relationship between masters and apprentices. The masters may feel resentful towards and threatened by the apprentices because their positions and authorities might be taken in the future when the apprentices become full participants (Hislop 2005). Second, when there is a strong sense of community identity, members may ignore knowledge or people that are not part of the community. This is a problem of inward-looking communities that exclude external ideas and people (ibid). Having said this, it is vital to consider the risk that shy people, people in external organizations, or people who are not liked by their colleagues may not fully integrate into communities and may not contribute to or benefit from the communities of practice. These pitfalls of communities of practice may inhibit the knowledge creation and sharing of organizations.

Overall, communities of practice facilitate more tacit knowledge sharing by having many interactions between community members. Apprenticeship and coaching are also used in these communities to strengthen the transfer and dissemination of both explicit and tacit knowledge. A community of practice might be convenient and useful for employees to share and learn more knowledge through their colleagues. Although the community of practice facilitates the knowledge processes of organizations, there are some negative aspects that organizations need to take into consideration when they formulate and develop communities of practice. However, such challenges may help organizational leaders acknowledge the potential of tacit knowledge embedded in their employees or any particular sections of the organization, and thus encourage a constant practice of the community.

The SECI process and the concept of shared space, two elements of knowledge creation

Deriving from a knowledge-based view of the firm, Nonaka and his co-authors developed a theory of organizational knowledge creation, in which the SECI process is a critical element that facilitates the interaction between tacit knowledge and explicit knowledge (Nonaka et al 2002).

This interaction is called “knowledge conversion” where human knowledge is created and expanded through social interaction between tacit and explicit knowledge (Nonaka & Takeuchi 1995). The SECI is shorthand for the four modes of knowledge conversion, namely: *socialization, externalization, combination* and *internalization*.

Socialization (from tacit to tacit) is the process of sharing tacit knowledge between individuals. Sharing experiences and technical skills are the key aspects in this stage (von Krogh et al, 2000). The socialization process allows individuals to acquire tacit knowledge of others through observation, imitation, and practice (Nonaka & Takeuchi 1995). Moreover, socialization is seen as the transition from individual tacit knowledge to group tacit knowledge through joint activities such as being together, or spending time and living in the same environment (Nonaka & Kono 1998). For example, when there is a problem in the organization, informal meetings for detailed discussions can take place outside the workplace such as in restaurants, resorts or any public social space. In such meetings, individuals can share experiences and seek resolution to problems. Such interaction may also help enhance mutual trust among participants.

Another way of sharing tacit knowledge in the socialization process is through the apprenticeship between a master and an apprentice. This is also called on-the-job training, in which a new worker can learn from the senior by observing, imitating and practicing. The emphasis of this process is on face-to-face interaction between individuals to share tacit knowledge. Baumard (1999) observes the circulation of tacit knowledge through socialization within communities of practice. This means communities of practice enable the conversion from tacit to tacit within the socialization stage, which helps resist tacit knowledge from being codified. This process also helps the organization prevent knowledge and know-how that derive from individual interactions from being imitated (Baumard 1999).

Externalization (from tacit to explicit) is a process of putting tacit knowledge into explicit notions (Nonaka & Takeuchi 1995:64). This process is called “the conversion of tacit knowledge into explicit knowledge” (Nonaka & Kono 1998:44), especially from group tacit knowledge to group explicit knowledge. Externalization is triggered by dialogue and collective reflection, in which writing acts as a tool to convert tacit into articulable knowledge (Nonaka & Takeuchi 1995:64). The articulation from tacit to explicit happens through the metaphors and analogies that individuals or groups use to reflect on the issue. Moreover, during the externalization stage, an individual commits to the group and ideas become one. His or her ideas and experience become integrated with the group (Nonaka & Kono 1998). Thus, the externalization process stresses the interaction between individuals and groups in their reflection on the issue and sharing tacit knowledge. These processes thus help translate the tacit into comprehensible forms.

Combination (from explicit to explicit) is a process of systemizing concepts into a knowledge system by individual exchange and knowledge combination through documents, meetings, telephone conversations or intranets (Nonaka & Takeuchi 1995). This process involves the conversion of explicit knowledge into more complex sets of explicit knowledge (Nonaka &

Kono 1998:44) and relates to how to collect new knowledge such as new laws or new procedures.

Internalization (from explicit to tacit) of newly created knowledge is the conversion of explicit knowledge into the organization's tacit knowledge (Nonaka & Kono 1998). This process requires individuals to learn and to be trained and exercised, so they can enter the knowledge territory of the group and the organization. Thus, “learning by doing” and “on-the-job-training” are emphasized for the internalization of knowledge. Verbalization helps embody explicit knowledge to tacit knowledge by documents, manuals or storytelling. For example, companies record customers’ complaints and inquiries into documents so that product development members can experience and reflect upon such information to seek solutions to the problems. Moreover, internalization occurs when one reads or listens to stories and “the experience that took place in the past may change into a tacit mental model” (Nonaka & Takeuchi 1995:70).

The four modes of knowledge conversion suggest that it is crucial to create a shared context or place in order to ensure their enactment. “The knowledge-creating process is necessarily context-specific in terms of who participates and how they participate” (Nonaka et al 2002:21-22). Shimizu (1995) develops the shared space concept, known as *ba* in Japanese, meaning time and space, and defines it as the shared context for knowledge sharing, creation and utilization (Nonaka et al 2002). *Ba* is a place for emerging relationships and a dynamic diagram to represent the transitions between tacit and explicit knowledge (Baumard 1999). “This space can be physical (an office, dispersed business space), virtual (e-mail, teleconference), mental (shared experiences, ideas, ideals) or any combination of them” (Nonaka & Kono 1998:40). The shared space provides a platform for advancing individual and collective knowledge. The knowledge embedded in *ba* is acquired through one’s experience or reflections on others’ (ibid). Good *ba* will likely enable individuals to detach themselves from day-to-day routines, engage in the externalization of their personal knowledge, and scrutinize a given phenomenon from a number of angles (Nonaka et al 2002). Thus, *ba* creates an environment for knowledge creation and facilitates interactions between individuals in the four modes of knowledge conversion.

Through different ways, the SECI processes and the concept of *ba* thus help transfer tacit knowledge into explicit knowledge. However, Polanyi (1966) argues that all knowledge has a tacit component within, and such dimension varies and continually changes based on the environment or context in which a person exists. Management tries to implement SECI by developing more trusting relationships between individuals and groups in the organization to enable complex knowledge to be shared and created. This idea aligns with Polanyi’s view of how individuals and groups develop their relationships, trust, and agreement to allow such shared knowledge environments. Such realization can be the creation of a knowledge organization that encourages knowledge-sharing behavior, and the generation of new knowledge for the organization. However, linking with the dynamics of interpretation and sense making, Patriotta (2003) points out that although the creation of organizational knowledge in the shared space and the employment of knowledge conversion modes is successfully addressed, it needs to develop

the important aspect of human agency which is involved in daily operations, in order to interpret and make sense of employee actions.

An integrated approach for sharing and disseminating tacit knowledge

Communities of practice, the SECI process and the concept of *ba* are equally important for the tacit knowledge sharing within organizations. Communities of practice facilitate the conversion from tacit to tacit of the socialization and other stages during the knowledge creating processes. There is a mutual relationship between these two concepts for the success of making the transition from tacit knowledge within the individual to explicit knowledge of the organization. These concepts are strongly connected to the transfer and dissemination of tacit and explicit knowledge within organizations.

The concept of *ba* is similar to the concept of community of practice because both concepts create space and time for individual interaction, thus encouraging knowledge sharing and dissemination. *Ba* creates a shared context for individuals to interact, a critical aspect to knowledge creation and development. Community of practice enables community members to intermingle in different ways of knowledge sharing and problem solving. Both concepts focus on the interaction between individuals and suggest that knowledge sharing and creation happen through interaction and practice. However, Nonaka et al (2002) argue that while a community of practice is a place for members to learn knowledge that is embedded in the community, *ba* is a place where new knowledge is created. Communities of practice might be formed implicitly by individuals who have the same tasks and interests to exchange and discuss. On the other hand, *ba* may be formulated explicitly to encourage SECI. Thus, while the boundary of a community of practice is firmly set by tasks or issues, the boundary of *ba* is fluid and can be changed quickly by the participants (Nonaka et al 2002). *Ba* is created, functions, and disappears according to need (ibid). Membership of the community of practice is stable whereas the membership of *ba* is not fixed; their participants come and go (ibid). Although there are dissimilarities between the two concepts, they are both significant for tacit knowledge sharing and dissemination in organizations. Learning, practice, and participation within *ba* and communities of practice help to transfer tacit know-how between individuals through contextual interactions.

The community of practice facilitates knowledge exchange among members. Their know-how and experience are shared and discussed in order to solve problems together and learn from others. Through various interaction and informal communications such as storytelling, conversation, coaching, and apprenticeship within communities of practice (Wenger et al 2002), the knowledge shared by community members is a form of collective/group knowledge with both tacit and explicit elements embodied within (Hislop 2005). Most importantly, the communities of practice can facilitate the organizational knowledge process by either strengthening levels of innovativeness through supporting creation, development and application of knowledge; or by encouraging knowledge-sharing, individual, and group learning (Hislop 2005). This approach also creates the condition for tacit knowledge to be exchanged in organizations through communicating and sharing, where it is in the best position to codify

knowledge owing to the ability to combine both tacit and explicit aspects of knowledge (Wenger et al 2002). Moreover, communities of practice not only enable members to enhance work performance but also to generate, reinforce and renew knowledge (Wenger & Snyder 2000).

The SECI processes happening in *ba* either enable tacit knowledge sharing and dissemination, or make tacit knowledge become explicit through the knowledge conversion modes. Baumard (1999) suggests that the integration of four processes of SECI will strengthen the creation of organizational knowledge since it encompasses two dimensions, from tacit to explicit and from individual to the organization, then to the inter-organizational domain. Such processes that happen in *ba* are interdependent and mutually complimentary, and the organizational knowledge creation forms a continual cycle of these four modes (Nonaka 1991). Within these stages, the mobilization and conversion of tacit knowledge is the key to knowledge creation (Nonaka & Takeuchi 1995).

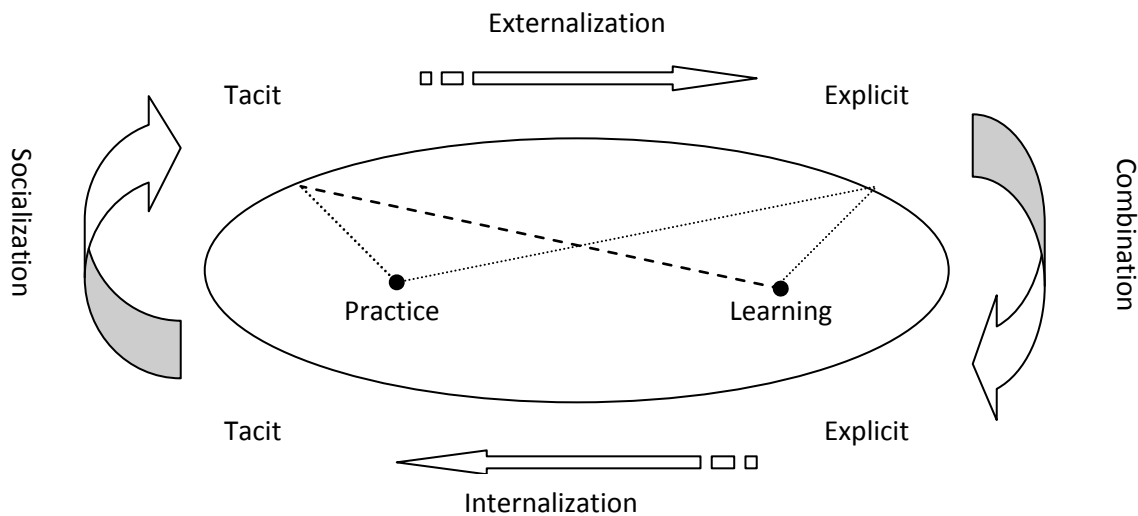


Figure: SECI Interactions in the Community of Practice (Medeni 2006)

Both communities of practice and SECI modes in *ba* stress the importance of the contexts for learning and knowing, particularly through sharing and interaction of the two types of knowledge. Such interaction is helpful in transferring tacit knowledge from the individual level into the collective level. The interactions of SECI in the communities of practice are illustrated in the figure developed by Medeni (2006) (See Figure above), in which knowledge creation stages happen within the communities of practice and enable the knowledge sharing and dissemination within groups. Knowledge is generated when there are different communications that facilitate the exchange of ideas, and knowledge happens among team members. Organizational learning and knowledge creation happen when there are practices of knowledge sharing and exchange within communities of practice. The model implies that tacit and explicit knowledge are bound together and the conversion of knowledge can be enabled in the ellipse of the communities of practice, which lead to the creation of knowledge and development of communities of practice (Medeni 2006).

METHODOLOGY

This study used a qualitative methodology (Silverman 1993; Strauss and Corbin 1990) to obtain an in-depth understanding of how tacit knowledge, particularly experience and know-how of auditors, has been shared and disseminated within audit firms. The choice of this approach satisfies what Rudestam and Newton (2007:35) suggest, in that qualitative methods “tend to focus on understanding experiences from the point of view of those who live them”. Thus, data collection in this study focused on the perceptions, interpretations and understandings of different auditors who have engaged in the process of knowledge management in audit firms.

During the course of this research, the author intended to conduct interviews with at least two persons from each of the Big Four accounting firms in Sweden. These include KPMG, PricewaterhouseCoopers, Deloitte and Ernst & Young. However, not all the interview invitations were accepted. Therefore, the author decided to seek interviews from other companies in Vietnam and Sweden. As a result, the empirical data of the study were collected through fifteen semi-structured interviews with auditors at different levels in four audit firms: KPMG (Sweden and Vietnam), PricewaterhouseCoopers (Vietnam), Deloitte (Sweden and Vietnam) and Baker Tilly Strömstad (Sweden). All of the interviews in Sweden were conducted face-to-face. Interviews of companies in Vietnam were made via telephone and Skype.

An interview guide covering the main topics of interest was formulated and sent to the interviewees in advance so that they could be prepared. Each interview took an average of one hour. Exceptions took one half hour extra. Interviews with auditors in Vietnam, along with the interview guide, were in Vietnamese. This was because it is easier for Vietnamese auditors to give answers and explain them in their native language.

Different issues and questions relating to tacit knowledge sharing and dissemination were mentioned in the interview guides, such as integration programs for newcomers, training, engagements, evaluation and communications. Other in-depth questions were also raised during the interviews in order to better understand the issues, the interviewees’ interpretations of the issues, and to see what factors influence the knowledge sharing behavior in these types of firms. All the interviews were tape recorded with permission from the interviewees. Notes were also taken during the interviews. All the interviews were transcribed and translated into English for later analysis. The interviews often began with an explanation of the purpose of the study, and how the study will contribute to knowledge management literature in both auditing and non-auditing firms. After the interviews, all interviewees were asked whether they want to have their names and the companies’ names in the paper of the study. There were follow-up questions sent by emails to interviewees during the analysis of the interviews. Empirical data and findings from the interviews will be described and analyzed in the next part of the paper. A list of the companies, the interviewees’ positions, and the number of interviews are shown in Table 1.

In addition, data were gathered from secondary sources found in academic journals, books and information available on the internet. The use of the literature and theories about knowledge management, especially how tacit knowledge is transferred from individual to groups and organizations, helped form the interview guide, questions, and data analysis. Literature reviews include varied lines of knowledge management literature that helped to formulate a clear problem of the study and to decide the conceptual framework of the paper. Among these are reports by audit firms downloadable from their homepages, such as Global Annual Review of PricewaterhouseCoopers. The secondary sources included web pages of studied audit firms, their annual reports, and articles relating to the topics.

Respondent	Company	Position	Years of working	Number of interview	Interview duration (minutes)	Follow-up questions
1	KPMG AB	Senior Associate	2,5	1	48	No
2	KPMG AB	Senior Associate	5	1	98	Yes
3	KPMG AB	Audit Manager	6	1	58	Yes
4	KPMG AB	Audit Manager	10	1	61	No
5	KPMG Vietnam	Associate	1.5	2	45	Yes
6	KPMG Vietnam	Human Resource Manager	2	1	45	No
7	Deloitte AB	Audit Manager	8.5	1	58	Yes
8	Deloitte Vietnam	Associate	2	2	65	Yes
9	PricewaterhouseCoopers Vietnam	Audit Manager	5	2	68	Yes
10	Baker Tilly Strömstad AB	Audit Manager	3	1	65	No
11	Baker Tilly Strömstad AB	Accounting Manager	3	1	65	No

Table 1: Information of the interviews in audit firms

The data were analyzed by coding the content of the interviews according to topics both emerged from the material and derived from the theory. Issues that were discussed the most during the interviews and most related to the topic were categorized in different groups; for example, informal versus formal ways of sharing tacit knowledge. What to look for in the data was determined by the theories and the purpose of the study. Thus, the data of four different audit firms are presented in the next section. From that data, findings related to tacit knowledge sharing and dissemination will be analyzed. Because some interviewees requested

confidentiality, all the interviewees' names are kept anonymous and mentioned as respondents 1 through 11 as shown in Table 1.

However, by using a qualitative strategy, the findings of the research may be subjective because of the “unsystematic views about what is significant and important and also upon the close personal relationships” with the people studied (Bryman and Bell 2007:423). This could be true because the author communicated closely with the people studied, and interpreted the data both from the interviews and secondary data to generate the concepts and phenomenon. Moreover, the interpretation of the data is influenced by the subjective learning of the author as a researcher (Bryman and Bell 2007).

The author is also aware of the cultural differences between Sweden and Vietnam that may affect the knowledge sharing behavior of individuals. However, most of the selected firms are global organizations. Thus, one aspect of the research is to see how similar or different these organizations are in terms of tacit knowledge sharing.

DESCRIPTION OF EMPIRICAL EVIDENCES

The hierarchy of professional levels is categorized differently among the four firms surveyed. For instance, in PricewaterhouseCoopers, there are six categories - assistant, senior, supervisor, manager, director, and partner - while there are five categories in KPMG as associate, senior associate, manager, senior manager and partner. During the course of this study, the author found the following four categories drew special attention by the interviewees owing to their roles in the sharing and dissemination of tacit knowledge: *associate*, *senior*, *manager* and *partner*. The presentation and analysis of empirical data hereon and throughout the paper will thus base its discussions on such categories.

Baker Tilly Strömstad AB

Baker Tilly Strömstad AB became a part of Baker Tilly Sweden AB network since 2010. This local firm started its operation in 2008 and currently has eleven employees. Although operating independently from other offices of Baker Tilly Sweden AB, local firms are connected in terms of supporting each other and sharing experience and knowledge. The vision of Baker Tilly Sweden AB is to become the most successful network of independent auditing and accounting firms in the world. Local firms work together and share resources to create training opportunities for co-workers, to hold forums for sharing knowledge, and to participate in internal and external panels of expertise (Baker Tilly Sverige 2011). They maintain a structure for quality control through their committees for accounting and auditing (ibid).

At Baker Tilly Strömstad, knowledge sharing and dissemination take place in different forms. *First*, when researching new regulations or information, the firm uses five to six different

websites, including FAR akademi³. There may be a variety of sites for tax regulations, human resources, personal issues and auditing matters. However, not all of these sites are available to every member in the firm because some sites require paid access. The resolution to this, according to the managers, is to provide information when their employees need it. At the time this research was conducted, an intranet was under development by Baker Tilly Sweden AB. The intranet will be used to update new auditing rules and other information for use by workers. All auditors are instructed with written guidelines so that they know how to perform documentation and auditing. As a young organization, even with guidance by Baker Tilly Sweden AB, Baker Tilly Strömstad develops its own guidelines and rules for its employees. The firm finds information systems important to accomplish its work and tries to align them to better suit the firm's purposes, customizing information to serve specific customers in particular industries. Customization is necessary because most their customers are small local businesses with diverse backgrounds, such as architecture companies, restaurants, shops, etc. Moreover, employees of Baker Till Strömstad also receive monthly information, invitations, and letters regarding new and update auditory rules from Baker Tilly Sweden AB and FAR akademi.

Second, many training courses and formal meetings take place throughout the year. Partner meetings are organized quarterly for local firms to share experience and discuss important current issues and future development. "Baker Tilly's Day" is organized every two years when all employees meet and gather to perform activities in a social setting. In addition, there are about five to ten training courses by Baker Tilly Sweden AB every year for firm members to learn and discuss related issues and exchange their experiences. These courses and meetings have formed a foundation of sharing know-how among local firms in the Baker Tilly network. Newcomers learn how to accomplish their work by engaging in the tasks and acquiring knowledge from doing and researching literature. They can also attend meetings with clients to understand the work of the senior auditor. The transfer of knowledge between a newcomer and the senior is at a personal mentor level, because the newcomer learns from the senior in daily work. Newcomers can ask questions both to the senior, and to other members in the office, whenever they are uncertain about something. Newcomers are also dispatched to external courses organized by FAR akademi. Baker Tilly Sweden AB also holds official training for all member firms. Those who wish to become auditors must attend three-week external courses annually organized by either Baker Tilly Sweden AB and FAR akademi, during their first three to five years. Course trainers are experienced auditors from Baker Tilly Sweden AB or the Big Four.

Finally, informal meetings among members take place every day in the office. There are varieties of social activities, such as Monday breakfast meetings and daily 9am and 3pm coffee breaks, where all members informally share work issues and problems. On Friday, there is a special coffee break at 3pm to celebrate that end of the week. This is a chance for all members to talk and share their weekly accomplishments. Moreover, there are three annual lunches with

³ The Swedish association of auditors. More information available at: <http://www.farakademi.se/>

managers that give workers the opportunity to meet the seniors individually. There are also two to three outdoor leisure activities every year for the whole group.

Deloitte Sweden and Viet Nam

Deloitte is one of the world's leading auditing and consultancy firms. Established in 1845, Deloitte has approximately 170,000 staff in more than 150 countries. All companies are members of Deloitte Touche Tohmatsu Limited, which coordinates activities of member firms but does not provide services to clients.

Basically, Deloitte Sweden and Viet Nam both use the same approach to manage knowledge. *First*, there is a strong information technology system for exchange and dissemination of the firm's internal knowledge. A software system, known as audit system 2 (AS2), is used globally as a tool for auditors to document their work and to find information about their clients and previous engagements. Information in the AS2 includes information from planning session to actual audit procedures and conclusions of the engagement. In a planning session, the manager and partner assess the risks for a client by interviewing its members, describing the risks and providing their assessments. Then, the auditors make decisions about the audit procedures to close the risks. A work program following the risk assessment is sketched for seniors and assistants so that they have a blueprint of exactly what to do when they are working with the client. When seniors and assistants perform the planned audit procedures, they also document details of the actual procedures; e.g., what they did and how they did it, as the audit evidence in the AS2. In this way, every member in the organization can obtain information and knowledge of from all old engagements. Furthermore, employees can also use a knowledge database system in the intranet to find updated auditing and other regulations. Auditors can search the knowledge databases to find answers to their questions. E-learning is also available in the intranet so auditors in Vietnam can attend courses remotely to develop their knowledge. There is also a Microsoft communicator in every computer for emailing and chatting online between members. An auditor can have conversations with others easily by using chat functions. In addition, the telephone system is connected to a web page that enables auditors to find persons in other offices who have the appropriate expertise to discuss and share problems.

Second, there are different activities within and between firms for knowledge sharing in Deloitte. Deloitte has established both technical and soft skills training courses for auditors. A structured five year training program is required for all auditors. Training in the first five years includes all members from other offices of Deloitte Sweden. Normally, there are approximately eighty to one hundred hours of training per year for each auditor. Evaluation after training courses helps that trainers know what to improve in their lectures. After the first five years, training is based on the need of individuals. However, there are more training courses for developing soft skills and leadership skills both internally and externally for managers at higher levels. There are training programs for managers to be trainers, and counselor training for managers at high levels. The organization also has a department that is in charge of its training,

development, and knowledge management. Besides regular trainings, joint training courses with different teams from other cities in Sweden also help employees gain and share knowledge, experiences and know-how. Trainers of these courses are managers and partners who have many years working experience in Deloitte. Activities in these trainings include both technical knowledge and shared experience by trainers so that trainees understand how theories apply in real life situations. Furthermore, in order for newcomers to integrate with their new environment, an assistant who has worked for one year will help a newcomer learn to perform his or her work. In addition, a counselor with at least five years experience will shadow a newcomer during his or her employment in Deloitte Sweden to advise and evaluate performance. However, in the case of Deloitte Viet Nam, the counselor is not required to have five years of experience. (S)he can be anyone who has more experience than those being counseled. Newcomers can ask the assistant and the counselor questions at any time.

There are regular meetings with the counselor for evaluation of the auditor's work and to ask practical questions after each engagement. Mid-year and year-end reviews are other occasions for performance evaluation and discussion about knowledge and experience that auditors acquire during the year. Knowledge sharing and dissemination usually happen in the auditor's daily work, especially when newcomers are included as part of the auditing team's mission and engagement with the customer. A respondent from Deloitte shared: "on-the-job-training is the best way to learn when you are with customers" (Respondent 7, Pers. comm., 25 March 2011) because juniors can not only observe what seniors are doing but also receive instructions and advice from them. During engagements and in daily interactions, there are many meetings and conversations among auditors that continue their dialogue and involvement (ibid). Asking questions and sharing knowledge are common and necessary in Deloitte, in keeping with the importance management places on its "open doors" policy. One can either use Microsoft communicator to chat with others or visit in person. Informal meetings, small talks and coffee breaks, and lunches and social gatherings after work all help to facilitate the knowledge sharing process.

Finally, there are many informal groups who are mostly at the same level in the company. An auditor has to work in a mix of industries, sizes and structures for the first five years. This means (s)he has worked with different members in the organization. The diversity of work and teammates helps the auditor gain broad knowledge about different industries and strengthens networks with other auditors in the firm. This characteristic of their work helps them to have better connections with others. The informal groups are also established in the same manner. These groups meet and discuss frequently, during lunch or in other occasions such as sporting activities and parties. Experience and ideas are shared during these group discussions.

KPMG Sweden and Vietnam

Established in 1870 as an accounting firm in London, KPMG is a global network of professional firms that provide audit, tax and advisory services. They have 140,000 professionals working

worldwide to deliver value in 146 countries. KPMG has a strong global knowledge sharing infrastructure, both technological and cultural (Manohar 2005). The purpose and mission of knowledge management at KPMG is to connect their people, clients and knowledge in support of KPMG business objectives to increase growth, profitability and quality of service (Manohar 2005). KPMG emphasizes the importance of the knowledge management system as a means for a successful business. With a strategy to deliver knowledge-based products and services to clients, top management has tried to make KPMG become a knowledge organization in all business units worldwide. With a global network in 146 countries in all over the world, KPMG is aware of different organizational structures. KPMG allows business units to make their own decisions for the content and process of knowledge management. Each national member firm establishes a knowledge organization that best fits national needs and resources (Manohar 2005). This knowledge organization works closely with local business units to gather and present relevant content. In Sweden, the knowledge organization is a group of people based in Stockholm who work closely with Gothenburg office on sharing the best practices and templates for auditors, updating new auditing standards and methodologies in the intranet and answering all questions from auditors in their daily work.

Both KPMG Sweden and Viet Nam use KWorld as a global intranet, which provides their employees access to the firm's global resources. However, members in Sweden do not think KWorld is applicable for their work because of differences in the size of clients in other countries that make the results dissimilar. There is a Swedish intranet where Swedish members can find useful information about updated auditing standards and regulations as well as previous case experience. A partner is in charge of approving all updated data in the intranet. While KPMG Sweden uses a local intranet, auditors in KPMG Viet Nam have KWorld as a tool to search for information in their daily work. They perceive KWorld as a knowledge sharing environment, which provides them access to the firm's global resources.

Beside the intranets, there is a working tool called eAudit by which auditors can document information on big client engagements, both in technical knowledge and practical experience. In addition, for smaller clients, there is another database called Visma where information of small engagements are documented and published. In both systems, the profile of a specific client is updated every year whenever there is a new engagement. Auditors from any level can use these electronic databases to look up for information and experience about a specific client.

In addition to the knowledge sharing system, there are different ways for auditors to exchange knowledge and experience in KPMG. *First*, by attending from forty to one hundred hours of training every year, auditors keep themselves updated on new auditing standards, auditing methodologies, and learn from experiences shared by trainers during the courses. KPMG provides a variety of training courses both in technical and soft skills, many of which are in-house training lectures by KPMG seniors or managers. The trainers' capacities were built with support by KPMG international professional personnel and cooperating training centers. In these

training programs, juniors have the freedom to exchange ideas and ask questions. In response, the managers/seniors enthusiastically share knowledge and experience with them. Each auditor has his or her own training schedule and (s)he must follow those courses during the year. Besides training, the firm provides a number of workshops, conferences and seminars that allow both KPMG staff and their customers to interact and exchange knowledge. There are inter-office seminars that bring the Gothenburg office together with other offices such as Stockholm and Malmö where auditors meet, discuss different business issues, and share their experiences and ideas. There can also be internal seminars for auditors to discuss different kinds of questions relating to their work.

Second, in different engagements, auditors have to work in different teams, with different people, enabling them to have strong networks with others. A respondent from KPMG Sweden shares that he has worked with fifty teams since he started. Each team consists of two to ten persons, allowing auditors to ask questions, get advice from seniors, and exchange their experience with others without any difficulty. The team working environment in Sweden is similar to that found in Viet Nam. In addition, interactions among auditors take place from formal kick-off and planning meetings to informal discussion and conversation during engagements. These interactions can be face-to-face conversation, and communication through emails, mobile phones and hotlines. Hotline is a communications method in which a manager sets up an emergency line to consult with the juniors on urgent problems in a specific area in their daily work. Other social activities such as sports, social events, coffee breaks and after work outings take place regularly. During such activities, employees are free to have both work and personal discussions.

Finally, knowledge sharing happens frequently in different programs for employees such as mentor-mentee and on-the-job-training for newcomers. Often learning by doing, newcomers are trained by involving themselves in different engagements with seniors. This is called on-the-job-training. Mentor-mentee is a program for all employees, each of whom has a mentor during their employment. The mentor follows and sets up training schedules for the individual. A mentor is typically a manager in the department or area in which the individual is working. During conversations with the mentee, the mentor asks questions about his or her work situation, shares experience, and gives advice to the mentee. This setting enables mentors to have every opportunity to develop mentees by understanding their situation and aspirations.

PricewaterhouseCoopers (PwC) Vietnam

PwC was created in 1998 by a merger of two firms, Price Waterhouse and Coopers & Lybrand. Price Waterhouse began as an accounting firm in the late nineteenth century. PwC is currently the second largest professional service firm in the world providing assurance services, tax advice, financial services and consulting. PwC has offices across 154 countries and employs over 161,000 staff. PwC Vietnam was set up in 1994, and is composed of 470 local and expatriate

staff who work in different areas including auditing, accounting, investment, tax, advising, and consulting throughout Vietnam.

There are different ways of sharing knowledge in PwC Vietnam. *First*, PwC uses Lotus Notes⁴ software that provides access to information, knowledge, and experience for auditors. A database built upon Lotus Notes allows auditors to collect all data on the clients and about the engagement. Data about the client is recorded in the database system, which is designed for a particular engagement for each client. Each year, the database is updated as new engagements occur. The data includes client information, a description of the audit engagement process, and the auditors' experiences during the engagement including recommendations for subsequent engagements with the same client. According to a respondent from PwC, their work depends highly on these databases that allow them to find all information and experience about clients in different industries. By using Lotus Notes, auditors can email and chat with other members from any location. In addition, an intranet that is frequently updated with information on auditing regulations and standards allows auditors to send questions to the senior auditors as needed.

Second, there are many annual training courses for auditors. Auditors are promoted every year to a higher levels, and each has a different training agenda that they must strictly follow throughout the year. Training sessions can occur at personal, company and international levels. Personal training in Vietnam takes place in July and can occur at a variety of locations. Trainers are the managers/partners who have joined the "trainers of trainers program". During the training, knowledge, skills, and experience are shared through story-telling and discussions. Trainings vary in method from e-learning to classroom courses that give auditors the opportunity to sharpen their professional judgment by sharing insights and experiences with their instructors and peers (PwC 2010). Trainers often try to share as much as they can about previous engagements that they experience. Auditors are oriented and inspired by these trainers when starting their work. Besides personal training, auditors receive email announcements about minor changes in regulation from knowledge management members. These members are in charge of establishing a number of research projects so that training within PwC evolves and improves, and meets the needs of the practice in the current environment (PwC 2010). There are also seminars or conferences between PwC Viet Nam with other business segments in the region, such as from Singapore, Malaysia, etc.

Third, the sharing of knowledge takes place in some programs for newcomers when they first enter the mentor-mentee program or apprenticeship. When starting work, a mentor will be available to give advice and suggestions at any time. Newcomers can come to their mentors to ask about any issues that they do not understand. Mentors and other senior members are responsible for creating a good working condition and are available to answer any questions from newcomers. During apprenticeship or on-the-job-training, newcomers learn directly by being involved in the engagement with their seniors.

⁴ **Lotus Notes** is a client application developed by IBM Software Group. More information available at <http://www-01.ibm.com/software/lotus/>.

Finally, there are a variety of communication modes in daily work and during client engagements that auditors can use to discuss and share with their co-workers. Each year, auditors in PwC may have to work with customers and different industries. This means that they work with many teams and collaborate with many persons to accomplish their work. Formal conversations such as meetings help them understand the clients, the auditing processes, and audit planning. Informal communications include chatting using Lotus Notes, email, and conversations during lunch and dinner. Auditors in PwC also have a strong social network because there are many social activities such as company trips, an annual Christmas party, team building, and family day activities that are organized every year. Other entertainment activities, such as games, performances, and sports also take place frequently. In Vietnam, there are also annual sport tournaments jointly organized by KPMG, Ernst & Young, Deloitte and PwC.

DISCUSSION

The empirical evidence shows that all studied audit firms perceive knowledge sharing and dissemination within the firms to be critical for their work performance and professional development. This section addresses the key findings from the empirical material and analyzes them in detail. An analysis of the interviews with auditors will attempt to give answers to the main question of the study, which is how knowledge, experience and know-how are shared and disseminated among auditors in these firms. The presentation and the analysis of the findings are organized accordingly by perspectives introduced in the theoretical framework and objectives of the study.

Key findings

Audit firms as ba

Most audit firms create shared space environments (*ba*) that enable knowledge transfer and creation by frequently using both formal and informal approaches in daily operations (See Table 2 for a summary). Four knowledge conversion modes are intensively employed in daily organizational operations through formal and informal approaches.

Socialization: embedding informal approaches to tacit knowledge sharing in formal systems

First, *socialization* is observed in forms of on-the-job-training, mentor-mentee programs and informal interactions among auditors. On-the-job-training, where newcomers learn from experienced auditors during engagements and “where most of the education takes place” (Respondent 3, pers. comm., 19 October 2010), is a way of sharing experience and technical skills by observation, imitation and practice (Nonaka & Takeuchi 1995). Auditors know how to perform their tasks by learning from others’ experience, thus acquiring tacit knowledge. Experience and tacit skills of experienced auditors are transferred to juniors by interactions

during on-the-job training. In such a process, tacit knowledge from seniors is socialized and shared with juniors, and is potentially re-generated when used by the juniors. The apprenticeship relationship between newcomers and their seniors allow them to understand others' ways of feeling and thinking (Nonaka & Kono 1998). This personal relationship creates an effective transmission of knowledge among auditors as it allows juniors to pose practical questions about task-based training, and to get prompt answers from their supervisors. This is affirmed by a respondent at Baker Tilly:

The knowledge sharing and learning in our firm is very much at a personal level, between a senior and a junior. The junior learns from involvement in a real task and asking questions whenever (s)he is uncertain about something. (Respondent 10, pers. comm., 11 March 2011)

This is similar with what an interviewee in Deloitte shares:

On-the-job training is the best way to learn because that is real life. Since you are always at a client's location, more experienced members can show you what to do, how to do it, and explain it. It is very concrete and more hands-on for you to learn. (Respondent 7, pers. comm., 25 March 2011)

On-the-job training is considered the best way for tacit knowledge sharing because this is when juniors learn from practical problems and from seniors (Respondent 4, pers. comm., 15 April 2011). Moreover, the socialization of tacit knowledge happens not only between newcomers and their seniors but also in auditors' daily work. When auditors work with teammates at different levels, tacit knowledge sharing becomes dominant. This is also true the case of KPMG Sweden:

Knowledge sharing is basically what happens every day. You always have inexperienced colleagues trying to learn and get better, and they are demanding you to explain and to be even better. That's what I like the most about this kind of job! (Respondent 2, pers. comm., 18 March 2011)

These observations suggest that the sharing and dissemination of tacit knowledge constantly take place among individuals in the audit teams, which becomes a critical step for organizational knowledge creation to come about, as stated by Nonaka and Takeuchi (1995).

Second, auditors are encouraged to socialize by having mentors of their own during employment in the company. The mentor-mentee programs in KPMG and PwC, and the counselors in Deloitte all have both formal and informal ways of sharing knowledge. The idea of mentoring and counseling is significant for the socialization of both newcomers and others. Coming into the organization, newcomers are encouraged to feel comfortable about addressing their concerns with the mentor or counselor, who is responsible for their professional development. An auditor from KPMG describes that in the beginning, the mentors try to fill them with confidence and encourage them to have a good time. Mentors dedicate their time to help newcomers begin their work (Respondent 2, pers. comm., 18 March 2011). Newcomers can have formal meetings with the mentor to set up training schedules and share their work problems and concerns with the mentors. However, on a daily basis most of the newcomers' interactions

Company	Baker Tilly Strömstad	Deloitte	KPMG International	PricewaterhouseCoopers
<i>Formal tools</i>	<ul style="list-style-type: none"> ▪ 6 different sites ▪ Mobile phone 	<ul style="list-style-type: none"> ▪ Audit system 2 as databases for all clients ▪ Intranet with knowledge databases & other sites, e-learning ▪ Microsoft communicator for email and chat online. ▪ Webpage connected to phone system. 	<ul style="list-style-type: none"> ▪ KWorld, global intranet ▪ Swedish intranet ▪ International hotline ▪ eAudit, a database for big clients ▪ Visma, a database for small clients ▪ <i>Dialogue</i> as evaluation tool ▪ Mobile phone 	<ul style="list-style-type: none"> ▪ Lotus Notes ▪ A database recording details of engagements ▪ Intranet ▪ Chatting system
<i>Formal interactions</i>	<ul style="list-style-type: none"> ▪ Daily meetings before and during engagements ▪ Monday breakfast meetings 	<ul style="list-style-type: none"> ▪ Counselor-counselee ▪ Training courses ▪ Joint training among Audit Sweden teams ▪ Evaluation twice a year ▪ On-the-job-training for newcomers ▪ Assistance by associates to newcomers. ▪ Daily meetings before and during engagements 	<ul style="list-style-type: none"> ▪ Mentor-mentee program ▪ On-the-job-training for newcomers ▪ Training courses: audit 1-5 ▪ Internal and external seminars/workshops ▪ Daily meetings before and during engagements 	<ul style="list-style-type: none"> ▪ Mentor-mentee program ▪ Training courses (emphasis on knowledge sharing by telling stories/experiences) ▪ Daily meetings before and during engagements ▪ Internal and external seminars/conferences (with worldwide members)
<i>Informal approaches</i>	<ul style="list-style-type: none"> ▪ Discussions ▪ Learning by doing ▪ Coffee breaks ▪ Company events ▪ 3 lunches every year with managers ▪ Social and sports activities 	<ul style="list-style-type: none"> ▪ Interactions during engagements ▪ Discussions and small talks ▪ Informal peer group discussions (at same level) ▪ Coffee breaks, lunches, after-works ▪ Sports ▪ Parties 	<ul style="list-style-type: none"> ▪ Communication via intranets ▪ Discussion and small talks ▪ Conversations during engagements, ▪ Face-to-face and telephone discussions ▪ Coffee breaks ▪ Social and sports activities 	<ul style="list-style-type: none"> ▪ Chatting during engagement (aslo with co-workers overseas) ▪ Learning by doing ▪ Discussion and small talks ▪ Lunch or dinner discussions during engagements ▪ Social and sports activities

Table 2: Summary of methods used in sharing and disseminating knowledge, experience and know-how at four audit firms

are informal activities that occur in the same workplace. In such a setting, mentors find every chance to keep their learners aware of the progress they must make. It is thus normal to see mentees being challenged by the pressure of achieving their targets and engaging in effective time management. The mentors will try to “develop” them as much as possible and tutor them through a difficult role (ibid). The two-fold aspect of the mentor-mentee relationship – comfort versus challenge – creates a dynamic setting for new auditors to gain access to the tacit knowledge that is relevant to their personal and professional goals.

Furthermore, regular training courses mirror the socialization stage and are another way of knowledge transfer and creation in audit firms. In the training, auditors are educated about technical knowledge that links to the experience and know-how observed in practice. Most seniors and managers in the four firms mentioned say that it is essential to relate the technical information to the cases. For example:

In our courses, we do not just read new auditing standards; the teachers always try to teach us from their own experience at the clients. As a trainer for audit 1, I always try to teach them not just accounting standards and auditing methodologies, but how you can use them in a situation when you are with clients. (Respondent 2, pers. comm., 18 March 2011)

The illustration of previous practices as a way of tacit transmission by trainers thus provides a tacit foundation that helps juniors relate the application of technical knowledge to their own cases. This aspect is particularly stressed in the training sessions at Deloitte:

That’s a very important part of our training to relate technical information to an actual client case so that we give them a concrete example of how things work in real life. We often have exercises and examples where we work in case forms, and the cases we have are often based on real life. (Respondent 7, pers. comm., 25 March 2011)

Training courses can be organized inside or outside the firms. For instance in PwC, training courses are organized at resorts where auditors come to learn and meet others, while taking a break from work. An interviewee from PwC expressed that every event of this kind always excites the employees just because they have opportunities to travel to new places in Viet Nam, meet their colleagues from other locations, learn new knowledge and skills, and exchange ideas (Respondent 9, pers. comm., 3 March 2011). Hence, by having annual training inside or outside the firm, auditors in these firms have chances to spend time together and to socialize. This reflects a space of *ba*, which is formed by the direct transfer of ideas and experiences from seniors to their colleagues – a dissemination of personal knowledge and creation of a common place. Again, the socialization of tacit knowledge is observable.

Finally, there are a variety of informal activities through which auditors have the opportunity to spend time together. These include daily interactions, internal seminars, and joint activities such as Friday breakfasts, ‘after-work’, coffee breaks (known as *fika* in Sweden), or sports activities. An employee from KPMG stresses that daily interaction is the best way to share and transfer tacit knowledge in the company:

I believe that the most important way for you to learn from your seniors is when you come and ask questions to the persons who are expert in that topic. We have both formal and informal ways of sharing knowledge but the informal way is the way I have used the most. (Respondent 3, pers. comm., 19 October 2010)

As a manager, he prefers using informal ways to share knowledge and experience. It is easy for members to ask questions because there are specialists in charge of different fields who are always available to give answers. The most common way is for the auditor to go directly to the person who (s)he thinks is most knowledgeable about that topic and ask questions. With an 'open-door' policy, it is common for auditors to knock at others' doors to ask questions and start discussions.

In PwC and Deloitte, one way to communicate with co-workers is to use a chatting system which can be accessed worldwide. Email and mobile phone are popular means of communication by auditors.

During client engagements, auditors often gather in the same room and spend most of their time together finishing the engagement report. These are also the opportunities to learn from each other. Thus, intensive direct interactions between different levels of auditors enable them to share, reflect, learn and even create new procedures for their work.

Other joint activities are not only good for new auditors to integrate into the new environment, but they also encourage the shared knowledge environment in their firms. People may want to meet up with others at Friday breakfasts or sports activities to share both work and private matters.

The above observations show that socialization is useful and meaningful to all auditors, enabling them to continuously gain experience and technical skills from their colleagues. It thus helps to remove the barrier between the self and others, addressed by Nonaka and Kono (1998). By using a variety of approaches in socialization, the firms have created conditions that allow the individual to be freed and "become a larger self that includes the tacit knowledge of the others" (Nonaka & Kono 1998:42). This also means newcomers obtain the shared-knowledge only when they are indeed integrated into the environment.

Externalization: making tacit knowledge become explicit knowledge by formal systems

Another formal method used to transfer knowledge, experience and know-how is the information technology system, which is a key factor of *externalization*. In all firms, technology plays a vital role in sharing both explicit knowledge and tacit knowledge. For instance, in KPMG, by using the intranets, auditors cannot only search for work-related information but they can also ask question to the people in charge of knowledge management who are always available within the intranet. The KPMG personnel perceive KWorld intranet as follows:

Kworld leverages the firm's collective thinking across practices, services and continents. The knowledge and experience of firm leaders are made explicitly in the form of presentations, white papers, "best practice" proposals, articles and other intellectual capital (KPMG 2010b).

Similarly, intranets are used in PwC and Deloitte as means for auditors to find auditing standards, regulations, and information relating to their work. The intranet in KPMG is also a useful tool for managers to share their opinions: "The intranet enables our managers to communicate with us by writing their opinions whenever they have something to share or something happens" (Respondent 1, pers. comm., 19 October 2011). Acknowledging the importance of the intranet in knowledge transfer for an audit and consulting firm, in Strömstad is also constructing its own intranet (Respondent 11, pers. comm., 11 March 2011). Using such network communication systems such as the intranet, tacit knowledge is translated into explicit knowledge in physical form in a shared space, an important point observed by Nonaka and Takeuchi (1995).

In addition, knowledge is created and disseminated by large-scale databases in most of the firms studied. As auditors in KPMG, Deloitte, and PwC described, databases systems are considered the most important tools for them to accomplish their work successfully. The eAudit and Visma systems in KPMG, in which auditors document exactly what they did in a specific engagement, allow auditors to learn knowledge about the clients and their industries as well as the seniors' experience in that engagement. Similarly, Deloitte and PwC use databases in their daily work not only to document, but also to find information about the customers, industries and experiences, and to understand the know-how of seniors in previous cases. An audit manager in PwC states that their work depends mostly on the database because they can find all the information about one specific client, what seniors did during the previous year, how they solved those problems, and so on (Respondent 9, pers. comm., 3 March 2011). The manager from Deloitte perceives the audit system 2 in the same way as "we have everything in that file, from planning, performing to concluding" (Respondent 7, pers. comm., 25 March 2011). The databases include their knowledge and experiences from audit planning, to actual procedures, to the conclusion and recommendations about a specific client. The audit system 2 of Deloitte also allows auditors at higher levels to review the work done by those in lower levels and provide necessary correction or assistance by using the electronic links. One of the interviewees stresses this as a useful way to confidently perform their tasks while receiving advice from the seniors about whether their work is meeting expectations (Respondent 8, pers. comm., 9 April 2011). Thus, auditors make tacit knowledge explicit by recording the details of their work into the databases.

It is interesting to note that the audit procedures are carefully prepared by managers and partners for a specific client, while the actual implementation of such procedures is documented by seniors and assistants as it progresses. Even though there are standard procedures, they must be developed in planning sessions to determine what procedures are applicable not only for individual clients, but for entire industries. The process of planning and documenting planned procedures can be considered a knowledge creation process, where managers and partners use

their personal knowledge and judgment to assess risks and make decisions about the audit procedures that will be performed by seniors and assistants. By using the databases, newcomers and less experienced auditors “know exactly what to do, why they are doing it and how they should perform it” (Respondent 7, pers. comm., 25 March 2011). This can be seen as an act of converting tacit knowledge into articulate knowledge as a process of externalization, as Nonaka and Takeuchi (1995) point out. Both intranets and databases efficiently support in the externalization of knowledge because they are the venues for articulating tacit knowledge into understandable forms. The written forms of tacit knowledge such as the auditing procedures for client engagements, best practices by seniors, and templates are the result of the articulation and translation processes as addressed by Nonaka and Kono (1998).

Finally, the evaluation programs in most of these firms reflect the externalization of knowledge creation when auditors reflect individually and collectively. Annual evaluation meetings help review what has been done during the year, and determine what improvements to make in the auditing procedures. For instance, KPMG has a system known as Dialogue that sets goals for individuals and try to describes how to achieve these goals. After each engagement, the leader will rank auditors’ performance and evaluate whether individuals need to improve in their work. The evaluation system is considered an important tool for knowledge development because it allows the firm to know how individual auditors have done and whether they need to improve (Respondent 2, pers. comm., 18 March 2011). Evaluation is also common in other firms. Deloitte dedicates one day every year for its staff to discuss and share knowledge and experience in how to make the audit more effective. Deloitte also dedicates a few days each year to collect thoughts and ideas to share within the office. In that sense, a process of concept creation is developed through collective reflection by dialogue and discussions in the evaluation meeting, which is also a mode of knowledge conversion.

Combination: from explicit knowledge to explicit knowledge

By the use of national intranets, such as the Swedish intranet and the global intranet, the *combination* of explicit knowledge in most of the firms involve the collecting of externalized knowledge, such as public data from inside and outside the company, and the combining of such data. The editing and processing of explicit knowledge in the intranets and databases can also lead to new knowledge. Seminars, meetings and training in auditors’ daily work are also opportunities for disseminating explicit knowledge to members in the firm. New knowledge can be spread among auditors by these methods.

Internalization: making explicit knowledge become tacit knowledge by both formal and informal approaches

The internalization process is reflected in documents, best practices, written procedures in the information system, and training where senior auditors share their experience and know-how by telling stories. By documenting and verbalizing their experiences, auditors try to reflect

on what they have done and put their tacit knowledge into words. This process helps them internalize what they experienced, thus enriching their tacit knowledge (Nonaka & Takeuchi, 1995). Most seniors and managers expressed that they always try their best to explain their experience and know-how to juniors. By doing so, they have learnt from their own reflections about whether the work they have done is good or needs to be improved. In this way, new knowledge is created as a result of reflecting on the existing knowledge.

When I need to explain something to other colleagues, it is really confirmation that I know what I am doing, what I am talking about, how I experienced it; and I think about how I should explain it all to someone. It is helpful to explain to someone and test yourself to see if you understand the problem correctly. So this is a good way to reflect and learn. (Respondent 7, pers. comm., 25 March 2011)

Similarly, another auditor in KPMG reflected:

Most of the time when you try to explain something to another person, you need to know that you understand the problem yourself. When you are trying to develop others and explain to others, you are developing yourself. (Respondent 2, pers. comm., 18 March 2011)

Furthermore, documentation and telling stories may facilitate the transfer of explicit knowledge to others and help auditors understand the experiences of others indirectly (Nonaka & Takeuchi 1995). When an auditor reads documents or listens to stories by seniors, (s)he can feel the realism and essence of the story, and the experience that took place in the past may change into a tacit mental model (ibid). The ‘open-door’ policy as a shared space in audit firms, including KPMG and Deloitte, create a flow of tacit knowledge within the organization and thus tacit knowledge becomes part of the organizational culture. Auditors are comfortable to ask questions and willing to share without reluctance. Whenever there are new issues such as practices, concepts and auditing methodologies, the new knowledge will be shared both internally and externally by different methods such as seminars and intranets. Moreover, learning by doing and training courses with exercises and examples manifest internalization because these “allow individuals to access the knowledge realm of the group and the entire organization” (Nonaka & Kono 1998:45).

In conclusion, most audit firms enable tacit knowledge sharing and dissemination by both formal and informal approaches. Importantly, these approaches reflect four modes of knowledge conversion, which facilitate interactions of tacit knowledge and explicit knowledge. These modes of knowledge conversion help to transform personal or individual knowledge into group knowledge and then organizational knowledge. Thus, a shared space is created for all auditors in these firms to either comfortably share their experiences and know-how or to receive disseminated knowledge from others. Individual knowledge or tacit knowledge is spread in forms of databases, informal interactions, and other conversations within the audit organizations and becomes organizational knowledge. Such shared space/environment not only helps create value for customers by providing effective auditing processes and good financial consultancy,

but also develops and motivates junior auditors, thus strengthening their commitment to the organization.

Audit firms as communities of practice

An audit firm itself is a community of practice where knowledge sharing happens in daily work and informal discussions that transfer experience and know-how become crucial for the audit performance. Within this community of practice, there are many smaller communities of practice in the form of audit teams working for different clients. In most audit firms, auditors have worked in teams with a variety of people, as most of the interviewees described having worked in thirty to fifty teams since first being hired. Teams and colleagues are different depending upon the client. Groups, formulated for different clients, can be seen as communities of practice when members have the same job or deal with the same clients (Wenger et al 2002). They gather during engagements to share information, insight, experience and tools about an area of common interest (McDermott 1999). These communities of practice enable less experienced members to learn from more experienced ones to carry out their tasks and develop themselves in a reformative manner. This also creates a feeling of involvement when one works in a group. The tacit knowledge sharing happens throughout the engagements through meetings, discussions and conversations during lunches and dinners, and so on. The sharing of experience during the engagements is crucial for the success of the audit work. According to Von Krogh et al (2000:50), shared experience creates communities of practice and “everyone who has gone through a real action experience with others knows that after such an experience the nature of relationship is different.” After involvement in many engagements, most auditors have stronger connections with others in the organizations, thus building trust and gradually becoming full participants of the community. Auditors know “whom to contact for what kind of help” because they discover from working with many people that who the experts are, and in what areas those experts are able to give them valuable advice (Wenger et al 2002:98). Hence, the audit firms themselves turn to be the communities of practices for auditors. These auditors do not necessarily work together every day but they meet because they find value in their interactions and as they spend time together, they share information, insights and advice, helping to solve each others’ problems (Wenger et al 2002).

Forms of communities of practice are present in communication tools, such as the intranet, chatting systems and informal interactions, which members use to share their knowledge, to work together, and to facilitate knowledge development and sharing (Davenport & Hall 2002). Mentor-mentee or counselor-counselee programs and on-the-job-training or learning by doing are different approaches to interactions in communities of practice. In such settings, juniors learn from seniors by engaging directly in audit work, asking questions and sharing with seniors/mentors their concerns and difficulties at work. However, management of these communities of practice differs across the firms. In KPMG, group members use electronic communications such as emails, hotlines, and face-to-face conversations as an informal approach. PwC and Deloitte employees use a chatting system and Microsoft communicators.

Most of the conversations between auditors take place at work. Baker Tilly Strömstad, as a small firm, does not have a developed information technology, so it utilizes frequent interactions among members in the firm to enable knowledge sharing among groups. Their informal interactions in daily work, both during working hours and coffee breaks, are useful tools that foster their relationships and communication. This is similar to what Wenger et al (2002) state about communities of practice. They take various forms from face-to-face to electronic exchange to reach multiple purposes: to solve problems and to explore ideas, tools and techniques. Such communities of practice are dynamic approaches rich with connections that exist both in the public places of the community such as meetings, training, emails and intranets; and the private space such as socialized activities like coffee breaks and sports activities (Wenger et al 2002).

Nonetheless, it is noteworthy that the concept of communities of practice seems to be unrecognized by the members of these audit firms. When asked, most auditors seemed not to know about this type of community or such a concept. However, the respondents were always aware of and emphasized the informal interactions and experience sharing with others in their daily work. Communities of practice might be invisible to both members and the organizations and members might have difficulty in seeing the concrete value that this concept brings to them.

Audit firms: Knowledge sharing as a critical factor to success

Tacit knowledge sharing is a critical factor to the outcomes of audit engagement. In all audit firms, the sharing of knowledge greatly impacts the audit performance, as pointed out by an interviewee from KPMG: “If the managers don’t share his knowledge with me, the engagement will suffer. If I don’t share my knowledge then the younger members will not be able to handle the work, and I have to suffer.” (Respondent 2, pers. comm., 18 March 2011). Knowledge sharing is thus a big part in the auditor’s job, and his or her organization must educate and help younger people (Respondent 7, pers. comm., 25 March 2011). Members in audit firms always try their best to explain their knowledge, experience and know-how as much as possible to their juniors for the best audit results. The key element of their work is sharing experience, and making sure employees know as much as possible. As stated by an auditor from KPMG, “We sell knowledge and trust, so sharing knowledge is crucial for our success” (Respondent 3, pers. comm., 19 October 2011). Similarly, sharing knowledge and experience in PwC is considered the most important thing for the success of audit engagement. According to a PwC manager, team leaders must take full responsibility for the engagements. Therefore, they disseminate whatever they know to their subordinates. Auditors in the studied firms try to share their experience and know-how by every way possible in their daily work; documenting experiences, recommendations and knowledge in the databases and intranets; reflecting, explaining and telling stories in training courses or seminars; instructing newcomers; and by being mentors and counselors. Most auditors see the significance of sharing knowledge, either for the success of engagements, the development of their juniors, or for reflection and learning. As a KPMG auditor shared, “I try my best to share as much as I can, because explaining to others helps you

reflect on what you have done, and learn from your own experience” (Respondent 2, pers. comm., 18 March 2011). Hence, tacit knowledge sharing and dissemination turn out to be the most significant thing for all audit firms in both Sweden and Vietnam. “It is an explicit task of more senior employees to work as a tutor and help the less experienced employees and that’s throughout the organization” (Respondent 7, pers. comm., 25 March 2011)

In sum, all issues mentioned above play a critical role in transferring individual knowledge to group and organizational knowledge. The tacit-individual knowledge becomes explicit-collective knowledge by reflections, articulations in the databases and by sharing in other forms such as training, meetings, and discussions, both informal and formal. The process of making tacit-individual knowledge into organizational knowledge involves a chain of events, from tacit individual knowledge to explicit-individual knowledge by reflections and explanation of know-how and experiences of auditors; and then to explicit-organizational knowledge by articulating the explicit-individual knowledge in the databases and intranet. Although communities of practice are invisible in audit firms, they play an important role in enabling the tacit-explicit knowledge interactions within the SECI processes that enable the sharing and generation of knowledge. Relationship, trust, and commitment among auditors of the communities of practice make the knowledge conversion happen. Furthermore, although cultures may be different in two countries, the findings show great similarity in how the firms nurture knowledge sharing and see it as a vital tool to ensure the success of the auditing process and auditors’ career development.

From findings of the analysis to contributions to theory and practice

This paper set out to understand tacit knowledge management in audit firms specifically, and in consulting firms in general. Drawing on semi-structured interviews with auditors from four audit companies, the study contributes to the knowledge management theory to some extent.

First, the analysis further strengthens the model of SECI interactions in communities of practice by Medeni (2006). Audit firms, as both communities of practice and *ba*, place emphasis on the importance of knowledge sharing by learning (knowing) and practice (action). Communities of practice and *ba* are intermingled and enable the SECI interactions happen. Both tacit knowledge and explicit knowledge interact and are conveyed by formal and informal approaches in communities of practice and *ba*. Both tacit knowledge and explicit knowledge are bound together in the ellipse of communities of practice. The interaction between tacit and explicit knowledge of auditors in the communities of practice enables the knowledge conversion modes and the knowledge sharing in audit firms. The two elements of knowledge are always blended because the tacit dimension is the foundation of knowledge and it makes the explicit element possible.

Second, the analysis contributes to the discussion of non-communicability and non-expression of tacit knowledge (Baumard 1999). While these authors emphasized the difficulties of communicating tacit knowledge, the analysis shows that there are possibilities to express the

tacit dimension in individuals if there are space, time and communities for them to reflect, share and discuss their interests and issues. Tacit knowledge can be communicated individuals in communities of practice who explain their actions by sharing and discussion within the communities. Furthermore, tacit knowledge can be conveyed through interactions of tacit and explicit knowledge in the SECI process, especially in socialization and externalization, where individuals make sense of their actions by documenting and reflecting on what they have done. Individuals are willing to share their tacit skills with each other if they are encouraged to fully participate in the interaction, and the interactions affect the success of their work while helping them develop.

Importantly, this personal and context-specific knowledge (Polanyi 1996; Nonaka & Takeuchi 1995) is acquired and articulated through action in specific contexts (Werr & Stjernberg 2003). In each audit engagement as a specific context, auditors use their tacitness to assess risks, provide audit procedures, decide the audit opinions and describe their work in the database systems. Tacit knowledge is developed, disseminated and articulated differently depending on how their clients' characteristics and contexts are. In this sense, although tacit knowledge is changing constantly, it can be shaped and generated to suit a new context when there is continuous exchange and interactions among members.

Moreover, communities of practice can be formed informally among members when they have issues relating to their tasks and they exchange views. Members can meet, discuss and solve problems together in their daily work through these unrecognized communities. However, invisible communities of practice may be unable to maximize their capabilities if they are not recognized by the organizations. According to Wenger and Snyder (2000), although communities of practice are fundamentally informal and self-organizing, they benefit from cultivation and become much more efficient. Thus, it is important for managers to distinguish different communities and domains embedded in their organizations, and to cultivate these communities to create additional value for both the organizations and individuals.

The analysis illustrates that there is nothing hindering tacit knowledge sharing and diffusion in audit firms. Because sharing knowledge is an important part of their job, the senior auditors and masters always try to share everything with juniors and the apprentices. There are no resentful or threatened feelings when sharing knowledge with the apprentices because the more the subordinates know, the better they perform in their work; thus, the outcome will be enhanced. Moreover, community members in audit firms have never been excluded. When starting as an auditor, newcomers learn to do their work by engaging directly with their task, asking questions and sharing knowledge with others. They benefit from the communities in different ways, by working in different teams, coming to seniors to ask questions, learning through the intranets and databases, and interacting through other activities. Gradually, they become full participants of the communities. In that sense, the nature of the audit industry encourages the sharing and dissemination of knowledge, know-how, and experience of auditors.

The tacit knowledge becomes truly a critical factor for daily management activities of their organizations (Gourlay, 2002).

In addition, knowledge management strategy differs across firms, depending on the types of firms and industries. As mentioned by Teece (1986), there is often a tight regime in engineering and production organizations whereas there is a loose regime in firms providing advisory and consultancies. Nonetheless, these shared knowledge models should be encouraged and used in all types of organizations to either create value for employees and customers, or enhance firms' performances. Such an open environment stimulates members to be more creative in doing their tasks and creating more knowledge for the firm. Therefore, having a shared knowledge environment and communities of practice are crucial for developing people and creating values for the firm, the clients, and the society.

Although tacit knowledge can be shared and disseminated in ways as discussed above, the analysis of the study cannot separate between tacit and explicit knowledge, despite the particular focus of the study on tacit knowledge. It is difficult to distinguish and disentangle tacit knowledge and explicit knowledge of individuals. The two interact and are intertwined. It is impossible to leave explicit knowledge on the side because "neither is ever present without the other" (Polanyi, 1967:7). Tacit knowledge supports explicit knowledge so that an individual can effectively perform his or her task. Thus, the structure set for knowledge management in audit firms facilitates the sharing of both explicit and tacit knowledge.

CONCLUSIONS

The study has presented an empirical understanding of how audit firms enable tacit knowledge sharing and dissemination by using qualitative interviews with auditors from the firms. The study shows that all audit firms perceive tacit knowledge exchange and dissemination as an important source for both their working performance and organizational knowledge creation. Sharing and disseminating of knowledge, experience and know-how have become a crucial factor for the triumph of these organizations, and for developing their personnel.

Most audit firms facilitate tacit knowledge sharing and diffusion by implicitly using different approaches as knowledge conversion modes and communities of practice in daily operation. Tacit knowledge as individual knowledge has been transferred to become group knowledge in *socialization* as well as communities of practice, and turn out to be organizational knowledge by *combination*, *internalization* and *externalization* in databases, intranets and evaluation tools. Tacit knowledge is shared, articulated, developed, and created continuously to suit with different clients' contexts. Audit firms themselves, as communities of practice, facilitate the knowledge conversion in different shared contexts as *ba*. The communities of practice are invisible for individuals and firms, but they play a significant role for the outcomes of audit engagements. Many interactions within communities enable them to share their

problems, insights, and obtain advice from their colleagues. These communities of practice are based on trust among auditors, and encouragement for future performance as well as development of both the firms and individuals. The shared knowledge environment is reflected in four modes of knowledge conversion as *socialization*, *externalization*, *combination* and *internalization*, which facilitate interactions between tacit and explicit. Within these firms, the communities of practice and shared knowledge are formulated naturally to effectively manage tacit knowledge for better performance.

Another critical factor that triggers the tacit dimension in individuals and helps them make it explicit is the nature of auditing and consulting jobs, in which collegial sharing is a necessity for the success of their work. Auditors, hence, share their knowledge with others as much as possible for the success of the group's audit performance, and for their own development. By learning and practice in these communities, both tacit and explicit knowledge have been developed and generated within the audit firms.

Thus, the communities of practice and *ba* not only enable tacit knowledge sharing and creation but also establish a strong connection between auditors and their co-workers in the organizations, thus strengthening their commitments to their organizations. Tacit knowledge sharing and dissemination turns individual knowledge into organizational knowledge and enhances the quality of the auditing process and knowledge creation in audit firms. Hence, although tacit knowledge is hard to communicate, the use of communities of practice and the knowledge conversion modes should be encouraged in all types of organizations in order to create values for employees, customers and organizations.

Further research and limitations of the study

Further research might investigate tacit knowledge sharing in other types of firms and industries, such as pharmaceutical, chemicals or banking companies. The tacit knowledge sharing might be different in term of industries, organizational culture, and history. Other organizations might use the same communities of practice and knowledge creation processes to grow and strengthen their positions in the market. However, the extent of using these approaches might be different compared with audit firms in terms of peripheral and core employees, secrecy of product knowledge, or intellectual property protection. These factors may hinder the knowledge sharing in these types of firms. More research should be done in cross-culture projects to see how tacit knowledge sharing is managed when languages and cultures are different. Acquisitions and mergers have increased and are common in the global market. Firms might benefit from acquisitions and mergers, but may face problems relating to cultural differences and misunderstandings during collaborations. Thus, how to facilitate knowledge sharing, especially tacit knowledge in cross-border teams, is still a difficult question for many organizations.

One limitation of the research derives from the usage of qualitative interviews for studying tacit knowledge. It is argued that tacit knowledge is hard to communicate; yet,

interviews are acts of communication. Thus, the use of interviews has limitation in understanding tacit knowledge itself and how it is shared and disseminated among auditors. It would be beneficial to this understanding to continue the investigation presented here with ethnographic studies in audit firms in which the author could observe directly how tacit knowledge is shared and disseminated and even take part in the tacit knowledge sharing and dissemination processes. However, because of the limited access to these firms, the author tried to study tacit knowledge by interacting and communicating with the auditors to understand how they interpreted the issues surrounding the topic.

REFERENCES

- Baker Tilly Sverige (2011). Local firms in cooperation. Available from <http://www.bakertilly.se/om-bt/in-english-1> (accessed Mar 15, 2011)
- Baumard, P. (1999). *Tacit knowledge in organizations*. London: Sage
- Bryman A. & Bell E. (2007). *Business research methods*. 2nd edition. Oxford University Press
- Fleck, J. (1996). Informal information flow and the nature of expertise in financial services. *International Journal of Technology Management*, 11:104-28
- Gherardi, S. (2000) Practice-based Theorizing on Learning and Knowing in Organizations: An Introduction. *Organization*, 7(2): 211–23
- Gourlay, S., (2002). *Tacit Knowledge, Tacit Knowing or Behaving?*. 3rd European Organizational Knowledge, Learning, and Capabilities Conference, Athens, Greece, 5-6 April.
- Grant, R.H. (1996). Toward a knowledge based theory of the firm. *Strategic Management Journal*, 17:109-22
- Hislop, D. (2005). *Knowledge management in organizations: A critical introduction*. Oxford: Oxford University Press
- Holden, N. and Glisby, M. (2010). *Creating Knowledge Advantage: The Tacit Dimensions of International Competition and Cooperation*. Frederiksberg: Copenhagen Business School Press
- Howells, J. (1996). Tacit knowledge, innovation, and technology transfer. *Technology Analysis and Strategic Management*, 8(2): 91-106. Available from <http://www.adb.org/documents/studies/auditing-lessons-architecture/ala3.asp> (accessed April 15, 2011)
- KPMG (2010a). Homepage. Available from <http://kpmg.com/global/en/Pages/default.aspx> (accessed Oct 15, 2010)

- KPMG (2010b). Knowledge sharing. Available from <http://www.kpmgcampus.com/whykpmg/knowledgesharing.shtml> (accessed Oct 15, 2010)
- KPMG (2010c). KPMG Institutes. Available from <http://www.kpmg.com/US/en/Institutes/Pages/kpmg-institutes.aspx> (accessed Oct 18, 2010)
- Kreiner, K. (2002). Tacit knowledge management: the role of artefacts. *Journal of Knowledge Management*, 6 (2): 112-23
- Krogh, G., Ichijo, K. & Nonaka, I. (2000). *Enabling knowledge creation: how to unlock the mystery of tacit knowledge and release the power of innovation*. New York: Oxford University Press
- Lam, A. (2000). Tacit knowledge, organizational learning and societal institutions: an integrated framework. *Organization Studies*, 21 (3): 487-513
- Lave, J., and E. Wenger (1991). *Situated learning: Legitimate Peripheral Participation*. New York: Cambridge University Press
- Manohar, H. (2005). KPMG: Leveraging KM Tools for Practice. In Rao, Madanmohan (ed.) (2005). *Knowledge management tools and techniques: practitioners and experts evaluate KM solutions*. Burlington, Mass: Elsevier Butterworth-Heinemann. Available from http://books.google.se/books?id=pRw14JrQmYEC&pg=PA223&dq=managing+knowledge+in+KPMG&hl=sv&ei=GcyQTM2NHoyTjAeskdz1DA&sa=X&oi=book_result&ct=result&resnum=1&ved=0CDIQ6AEwAA#v=onepage&q&f=false (accessed Mar 10, 2011)
- McDermott, R., (1999). Learning Across Teams. *Knowledge Management Review*, 8: 32-36
- McKenzie, J. & Winkelen, C. (2004). *Understanding the knowledgeable organization: nurturing knowledge competence*. London: Thomson
- Medeni, T. (2006). Tacit-Explicit and Specific-General Knowledge Interactions in CoPs. In Coakes, E. & Clarke, S. (2006). *Encyclopedia of Communities of Practice in Information and Knowledge Management*: 514-522. Available from www.jaist.ac.jp/~medeni/researches/CoPresubmitted.doc (accessed Mar 15, 2011). or <http://www.igi-global.com/bookstore/chapter.aspx?titleid=10540> (accessed Mar 15, 2011)
- Muskopf, J. (2009). Defining Organizational Knowledge, Turning individual knowledge into organizational intellectual capital. Available from <http://knol.google.com/k/defining-organizational-knowledge#> (accessed Feb 17, 2011)
- Nonaka I., Toyama, R. & Konno, N. (2002). SECI, *Ba* and Leadership: a Unified Model of Dynamic Knowledge Creation. In Nonaka, I. & Teece, D. (2002). *Managing Industrial Knowledge, creation, transfer and utilization*. London: SAGE
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company: how Japanese companies create the dynamics of innovation*. New York: Oxford University Press
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 69: 96-104

- Nonaka, I. and Konno N. (1998). The Concept of Ba: Building a Foundation for Knowledge Creation. *California Management Review*, 40 (3). 40-55
- Patriotta, G. (2003). *Organizational knowledge in the making: How firms create, use, and institutionalize knowledge*. New York: Oxford University Press
- Pickett, K.H.S. & Pickett, J.M. (2005). Why auditing?. In Pickett, K.H.S. & Pickett, J.M. (2005). *Auditing for managers the ultimate risk management tool*. New York: Wiley
- Polanyi, M. (1958). *Personal knowledge: towards a post-critical philosophy*. London: Routledge & K. Paul
- Polanyi, M. (1959). *The Study of Man*. Chicago: University of Chicago Press.
- Polanyi, M. (1967). *The tacit dimension*. London: Routledge
- Polanyi, M. (1969). *Knowing and Being*. Routledge
- PwC (2010). Building relationships. Creating value. Transparency: Committed to sharing information. *Global Annual Review 2010*. Available from <http://www.pwc.com/gx/en/annual-review/pdf/2010-gar-transparency.pdf> (accessed Mar 4, 2011)
- Rudestam, K. E. & Newton, R. R. (2007). *Surviving your dissertation: a comprehensive guide to content and process*. 3rd edition. Los Angeles: SAGE Publications
- Serrat, O. (2008). Auditing knowledge, *Auditing the Lesson Architecture*. Available from
- Silverman, D. (1993). *Interpreting Qualitative Data*. London: Sage
- Strauss, A.L and Corbin, J. (1990). *Basics of Qualitative Research*. London: Sage
- Styhre, A. (2003). *Understanding knowledge management: critical and postmodern perspectives*. Copenhagen: Copenhagen Business School Press
- Teece, D. (1986). Profiting from technological innovation, *Research Policy* 15:285-305
- Teece, D. (2000). *Managing Intellectual Capital: Organizational, Strategic and Policy Dimensions*. Oxford: Oxford University Press
- Tricker, B. (2009). *Corporate Governance: Principles, Policies, and Practices*. New York: Oxford University Press
- Wenger, E. & Snyder M. (2000). Communities of Practice: The Organizational Frontier. *Harvard Business Review*, January-February, 139-145
- Wenger, E., McDermott, R. & Snyder, W. (2002). *Cultivating communities of practice: a guide to managing knowledge*. Boston, Mass.: Harvard Business School Press
- Werr, A. & Stjernberg, T. (2003). Exploring Management Consulting Firms as Knowledge Systems. *Organization Studies*, 24, 881