NONAKA'S KNOWLEDGE CREATION THEORY REVISITED: A Semiotic Analysis of Communicating Knowledge in a Geographically Dispersed Team

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東京へ

It gives me pleasure to imagine that I might one day take you there, beneath the thistles. Their lovely corymbs are veiled by a downy web, which floats high above like the crowns of trees on a beach promenade.

Leena Krohn

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Miikka Lehtonen

ABSTRACT
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Objectives of the study

The objective of the study was to understand how Finnish and Indian team members share and communicate knowledge in multicultural project teams. In addition, the role of trust in knowledge sharing was also explored. The answers to four research questions were studied: 1) How do Finns and Indians communicate knowledge and negotiate commonly understood meanings in geographically dispersed multicultural projects? 2) How does interpersonal similarity or dissimilarity affect knowledge communication? 3) How does trust shape knowledge sharing and communication? 4) How are the different phases of *ba*, shared contexts, achieved, maintained and nurtured?

Summary

This study focused on understanding how the team members communicated knowledge. The literature review aimed at combining Nonaka and his associates' knowledge creation theory with cultural identity and Peirce's work on semiotics to stress the diversity between individuals. The research data was collected through semi structured and focus group interviews which were conducted in various locations in Finland and in India.

Conclusions

Six Peirce's objects were identified as affecting knowledge communication: language, interpersonal similarity, attitude towards knowledge sharing, organisational environment, trust and personal relationships. In terms of interpersonal similarity, differences related to how English was utilized were seen as the biggest challenge regarding knowledge sharing. Trust, on the other hand, was found out to be a prerequisite for knowledge sharing but alone it does not suffice. Moreover, in profit-driven organisations trust was seen to have an instrumental value rather than having a value of its own. *Ba* was identified as necessary for knowledge sharing. It can be suggested that the team's top management ensures the team has suitable environments, both virtual and physical, to share knowledge. When the environment is suitable for knowledge sharing it is up to the team members to consciously engage in knowledge sharing. Therefore, knowledge sharing in teams involves both planning and empathy.

Keywords

Communication, culture, knowledge communication, knowledge management, multinational corporations, project

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NONAKAN TIETÄMYKSEN LUONNIN TEORIA UUDELLEENTARKASTELTUNA: Semioottinen analyysi tietämyksen viestinnästä maantieteellisesti hajautetuissa tiimeissä

Tutkimuksen tavoitteet

Tutkimuksen tavoitteena oli ymmärtää, miten suomalais-intialaisen projektitiimin jäsenet jakavat ja viestivät tietämystä monikulttuurisessa ympäristössä. Lisäksi tutkielmassa tarkasteltiin luottamuksen merkitystä tietämyksen jakamisessa. Seuraaviin neljään tutkimuskysymykseen pyrittiin vastaamaan: 1) Miten suomalaiset ja intialaiset viestivät tietämystä ja saavuttavat yhteisesti jaetut merkitykset maantieteellisesti hajautetuissa monikulttuurisissa projekteissa? 2) Miten ihmistenvälinen samanlaisuus tai erilaisuus vaikuttaa tietämyksen viestintään? 3) Miten luottamus vaikuttaa tietämyksen viestintään ja jakamiseen? 4) Miten *ba*n, jaetun kontekstin, eri vaiheet saavutetaan ja ylläpidetään?

Tutkielman yhteenveto

Tutkimuksessa pyrittiin ymmärtämään, miten tiimin jäsenet viestivät tietämystä. Kirjallisuuskatsauksessa Nonakan tietämyksen luomisen teoriaan yhdistettiin kulttuuri-identiteetin käsite sekä Peircen semiotiikan teoria, jotta ihmistenvälinen yksilöllisyys tulisi paremmin esille. Tutkimusaineisto kerättiin haastattelemalla tiimin jäseniä eri puolilla Suomea ja Intiaa.

Tutkimuksen tulokset

Kuusi Peircen objektia tunnistettiin tietämyksen viestintään vaikuttavina tekijöinä: kieli, ihmistenvälinen samanlaisuus, asenne tietämyksen jakamista kohtaan, organisatorinen ympäristö, luottamus ja henkilökohtaiset suhteet. Tietämyksen hallinnan eräs suurimmista haasteista oli englannin kielen moninaiset käyttötavat. Luottamuksen puolestaan ei nähty yksin riittävän edistämään tietämyksen jakamista ja erityisesti voittoa tavoittelevissa organisaatioissa sillä nähtiin olevan enemmänkin väline- kuin itseisarvoa. *Ba* tunnistettiin erääksi tärkeimmäksi tietämyksen jakamisen edellytyksistä. Tutkimustulosten perusteella voidaan todeta tiimin johdon tehtävän olevan tietämyksen jakamiselle suotuisan ympäristön luominen, jolloin tiimin jäsenten vastuulla on jakaa itse tietämystä. Näin ollen tietämyksen jakaminen tiimeissä koostuu sekä suunnitelmallisuudesta että empatiasta.

Avainsanat

Kulttuuri, monikansalliset yritykset, projekti, tietämyksenhallinta, tietämyksenviestintä, viestintä

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1 INTRODUCTION

1.1 Background to the Study: The Quest to Share Knowledge in Organisations

How and with whom do individuals share knowledge in organisations? Moreover, do we, as individuals with different cultural backgrounds, share knowledge differently and in different situations? These and many other questions regarding knowledge flows in organisations (Gupta & Govindarajan 2000) have attracted interest from various disciplines ranging from philosophy to management studies. However, despite the growing amount of knowledge management literature (Nonaka & Peltokorpi 2006), little is still known of how knowledge actually is conveyed between individuals with different cultural backgrounds. To further stress the importance of studying knowledge sharing between individuals, three examples promoting knowledge sharing are presented below.

Firstly, more than sixty years ago, Hayek (1945) addressed the problematic issue of conveying knowledge to the planner. Secondly, several decades later, Drucker (2005) stated that postcapitalist societies are best characterised by their increased dependence on knowledge and knowledge workers. Thirdly, Takeuchi & Nonaka (1986) argue that the age of high quality, low cost and differentiation has come to an end. These three examples from different decades show the interest towards knowledge management as a crucial element of profitable business spans over many decades and yet managers and scholars find it nearly impossible to transfer knowledge between individuals and organisational units. Moreover, especially in the project based economy, knowledge management concepts and theories have become crucial in a short period of time because there have been concerns that the knowledge gained in one project is forgotten when another project starts.

Companies could no longer gain competitive advantages by solely relying on tangible assets and therefore knowledge management became the buzzword of the 1990s (Dalkir 2005). Dalkir (2005, 12) continues that knowledge management as a phenomenon has existed much longer than its concept. Now companies, both local and multinational, have realised the potential of knowledge management (KPMG Consulting 1999) but the real challenges come from the global context where projects have become the most common way to conduct business (Love, Fong & Irani 2005). Knowledge management involves processes (Bukowitz & Williams 1999) but more importantly communication (Nonaka & Takeuchi 1995; von Krogh 1998; Karppinen 2006) between individuals with different backgrounds (Mäkelä, Kalla & Piekkari 2007).

1.2 Research Problem and Gap

The purpose of this chapter is to present the research gap and to discuss how Peirce's work on semiotics could fill this gap by extending Nonaka and his associates' theory on knowledge creation[1] in organisations. Researcher's motives to undertake this study are also presented to shed light on the research context. Finally, why managers of MNCs (Multinational Corporations) should read this report is discussed.

As a discipline, knowledge management is still somewhat vague and actually a combination of contributions from other disciplines (Karppinen 2006, 28; Nonaka & Peltokorpi 2006, 73). Additionally, the question of what knowledge actually is and where it is located has fascinated researchers starting already from the Ancient Greece. Thus, also the author of this study is interested in knowing what knowledge is and how it could be utilized in profit-driven organisations.

This study is based on interest towards knowledge sharing and communication at individual level. As the literature review chapter claims, only few studies have analysed

[1] Please note that in this study, 'Nonaka' and 'Nonaka and his associates' are used interchangeably when referring to the theoretical framework.

how knowledge is shared between individuals. Majority of the previous literature (Bhagat, Kedia, Harveston & Triandis 2002; Bixler 2002) in knowledge management is focused on the organisational level thus neglecting individuals. While organisational studies give us a good overview of knowledge flows in organisations, in-depth studies of how knowledge is actually conveyed in the individual level can make organisational knowledge more subjective (Nonaka & Peltokorpi 2006) and thus organisations more aware what constitutes as knowledge in their context. In addition, Jorna (1998) points out that Nonaka & Takeuchi's (1995) knowledge-creation theory lacks a theoretical foundation based on semiotics although their SECI model involves conveying signs and objects from one individual to another. The demand for a semiotic framework is justified since individuals treat and interpret knowledge in differing ways and this study will incorporate Peirce's (1931-1958) work on semiotics with Nonaka & Takeuchi's (1995) knowledge-creation theory.

As companies globalise, their employees will eventually come face to face with people from different cultures and usually this implies increased communication in non-native language(s). The interaction between individuals with different backgrounds has led to numerous articles and books on how to "avoid culture shock". Perhaps the most classic example about avoiding the culture shock is the amount of guides telling Americans how to cope with Japanese culture and customs (see e.g. Hall & Hall 1990; Nishiyama 2000; March 1996). However, most of these guides are based on the notion that culture equals nation. In a globalised context, where national borders have become blurred, it cannot be said that nations are the only factors affecting individual's cultural identity (Jameson 2007).

While cultural differences have been said to generate conflicts between individuals (Peltokorpi 2007), issues that are related to languages, especially non-native languages, have also become increasingly important in the multinational corporation context (Louhiala-Salminen et al. 2005; Nickerson 2005; Charles & Marschan-Piekkari 2002, 15), as well, especially in the field of knowledge management and communication (Mohr 2007; Renzl 2007; Liebowitz 2008). Language barriers can become major

hindrances for knowledge creation. As Nonaka & Takeuchi (1995) point out, communicating knowledge is as important as creating it. Furthermore, several other scholars (Davenport & Probst 2002; Dixon 2000; Wenger, McDermott & Snyder 2002; Hislop 2005; Dalkir 2005) argue that communication is a crucial part of knowledge creation but yet they remain silent about how to communicate knowledge. Thus, the four following observations legitimise the existence and *kairos* of this study.

First, previously the field of knowledge management has been remained untouched by the business communication discipline. As noted above, previous studies (see e.g. Karppinen 2006; Matsuo & Easterby-Smith 2008) have acknowledged the pivotal role of communication in knowledge creation and transfer. Moreover, although knowledge management is still regarded as a collection of contribution from other disciplines (Nonaka & Peltokorpi 2006), nonetheless it has remained largely untouched by business communication discipline. On the other hand, knowledge communication as an emerging field of study is gaining momentum. Thus, this study aims at bringing components from business communication to the core of knowledge management.

Second, Nonaka & Takeuchi (1995) formulated their famous theory of knowledge-creation in the Japanese context but its relevance outside Japan should be further investigated. Furthermore, Nonaka & Konno (1998) ground *ba* (shared context for knowledge creation), one of the most important components of the knowledge-creation theory, to Japanese philosophy. Karppinen (2006), however, situated Nonaka & Takeuchi's (1995) theory to both Finnish and Japanese cultural contexts and she concluded that it "has proved valid and useful in cultural comparison". Nonaka & Takeuchi's (1995) conception of knowledge should, however, be contrasted with non-Japanese views to see whether this has an impact on their theoretical framework.

Third, as Love et al. (2005) noted, we are now living in a project-based economy which was made possible by, for example, global competition and innovations in communications technology. Based on previous research, Hall & Sapsed (2005) argue that knowledge sharing in project-based organisations is still problematic. From the

knowledge sharing perspective, projects are seen as challenging because they are unique, temporary and progressive (Project Management Institute 2004, 5-6).

Fourth, while offshoring aims at making the organisation more cost-effective, there are still intangible aspects that are needed to take into account. As Messner (2008, 101) points out, intercultural aspects should be taken into account when dealing with offshore operations. Thus, while a certain project might seem feasible in financial terms, intercultural issues should be taken into consideration. Moreover, Messner (2008, 115) continues that Indian English contains words (such as 'lakh' which stands for the numeral one hundred thousand) that are unknown to other English speaking countries. Linguistic differences, however, are grounded deeper than in just lexical level, implying vocabulary is but one level of language. These issues, combined with the notion that offshore services are gaining momentum (Thun 2008, 3) and popularity, give rise to studying how knowledge is shared in transferred in offshoring environments.

In conclusion, the observations addressed above show that we have yet to discover the full potential of knowledge communication in project and offshoring environments. Apart from pragmatic advantages, this study is an attempt to further show the pivotal role of communication in knowledge management. By addressing the four key issues presented above this study works to provide both managers and researchers alike with research data on how knowledge is actually communicated and shared in multicultural environments. Moreover, based on the main findings presented in section 6.2, recommendations for enhancing intraorganisational knowledge transfer can be formulated.

1.3 Research Objectives and Questions

The research questions will build on Nonaka & Takeuchi's (1995) theory on organisational knowledge creation, which comprises three elements (Nonaka, Toyama & Konno 2000): the SECI model, *ba* and knowledge assets. To better understand knowledge flows between individuals (Nonaka 2008) and how individuals attach

meaning to external objects and phenomena (i.e how individual communicates his/her knowledge to others), Peirce's work (1931-1958) on semiotics is integrated to the main research question. This study, then, will attempt to answer the following main question and its three sub questions:

- How do Finns and Indians communicate knowledge and negotiate commonly understood meanings in geographically dispersed multicultural projects?
    - How does interpersonal similarity or dissimilarity affect knowledge communication?
    - How does trust shape knowledge sharing and communication?
    - How are the different phases of *ba*, shared contexts, achieved, maintained and nurtured?

The purpose of the main research question is twofold. First, the aim is to study how Finnish and Indian team members actually communicate knowledge to their colleagues and what the possible barriers are to knowledge sharing and communication. Additionally, following the work of Peirce (1931-1958; 1986), the different meaning systems the team members utilise are also explored. Second, previous studies have mainly focused on the organisational level, although knowledge is shared between individuals, not organisations. This question, then, builds on previous work by Nonaka & Takeuchi (1995) to further understand the dynamics of their theory in the multinational corporation context, especially outside Japan.

Knowledge management literature has previously focused on either conceptualisations of knowledge (Choo 1998; Diakoulakis, Georgopoulos, Koulouriotis & Emiris 2004; Abou-Zeid 2007) or the organisational context (Kodama 2005; Greiner, Böhmann & Krcmar 2007; Schenkel & Teigland 2008), while the knowledge creation and sharing from individual's point of view has attracted less interest. One of the reasons here might be that tacit, highly personal, knowledge is challenging to operationalise or study because scholars have interpreted 'tacit' in various ways (Gourlay 2006b, 63). Furthermore, because individuals possess unique meaning systems (Peirce 1931-1958)

we cannot say that tacit knowledge for individual A is also tacit - and thus comprehensible - knowledge for individual B.

The first sub question builds on findings by Mäkelä et al. (2007). According to Mäkelä et al. (2007), the more people resemble each other the more they tend to share knowledge with each other. Homophily (Mäkelä et al. 2007, 2), as the phenomenon is called in sociology, has not received much attention in knowledge management. However, as Mäkelä et al. (2007) found in their multiple case study, homophily does, in fact, offer an explanation why knowledge flows within MNCs tend to become uneven.

While the first sub question aims at studying whether homophily does explain knowledge flows, the second sub question focuses on trust in personal relationships. Trust, as formulated by von Krogh (1998) as a component of care, works towards achieving common ground between individuals. According to von Krogh (1998, 136), care in knowledge management is understood as empathy and as a constructive act towards enhancing personal relationships. To further integrate care with knowledge creation, von Krogh (1998) identified four processes, or strategies, through which knowledge is created (Figure 1). In these processes, trust, when present, plays a pivotal role by facilitating knowledge sharing between individuals.

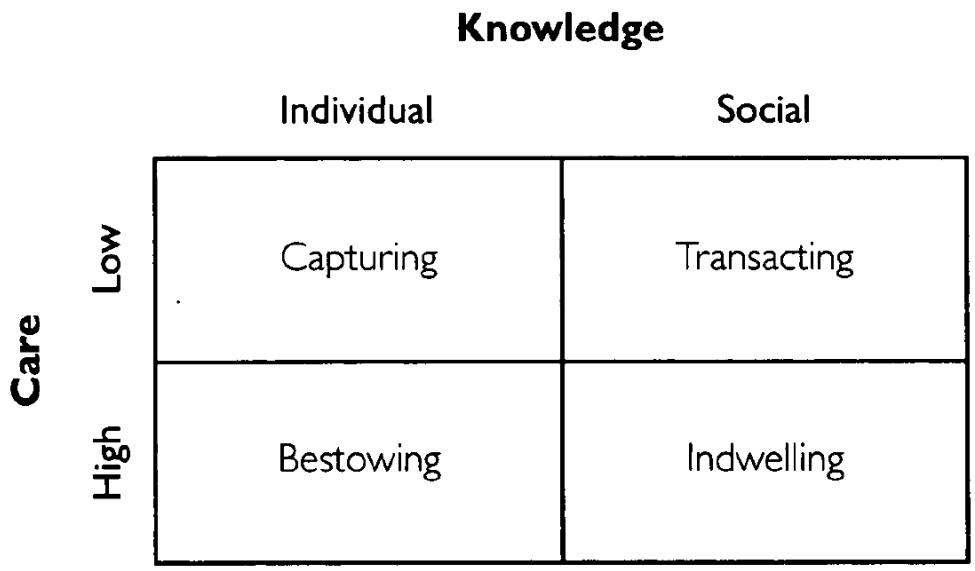

Figure 1. The processes of knowledge creation (von Krogh 1998, 139).

Knowledge capturing occurs when individuals are left to themselves to gather required knowledge, whereas knowledge is transacted in environments where trust is low but social interaction is rather high. When knowledge is bestowed upon individuals it is seen as an act of teaching others. Von Krogh (1998, 141) argues that bestowing promotes a supportive environment. The final process of knowledge creation, indwelling, comes from mutual bestowing (von Krogh 1998, 141). Through indwelling, individuals learn to value personal knowledge as a true competitive advantage. Indwelling also makes it possible to defend one's arguments with emotions (von Krogh 1998), which would not be possible in the other processes of knowledge creation.

The concept of trust in the field of knowledge management has not received as much attention as it deserves, although it possesses similar characteristics with the interplay between subjectivity and objectivity (Nonaka & Toyama 2005; Nonaka & Peltokorpi 2006). According to Nonaka & Toyama (2005, 422), knowledge creation starts from the individual, subjective, level and it is made explicit, objective, by overcoming individual borders through social interaction. To achieve objectivity comes from promoting and fostering trust in organisations. Without trust, then, individuals might not engage in collaboration to achieve their work-related goals and objectives.

The concept of *ba* and its four phases have been previously discussed in various sources by Nonaka and his associates (Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2005; Peltokorpi, Nonaka, Kodama 2007) but so far it has not been studied outside Japanese organisation context. The figure below illustrates the four types of the *ba* and their interplay in respect to time and space.

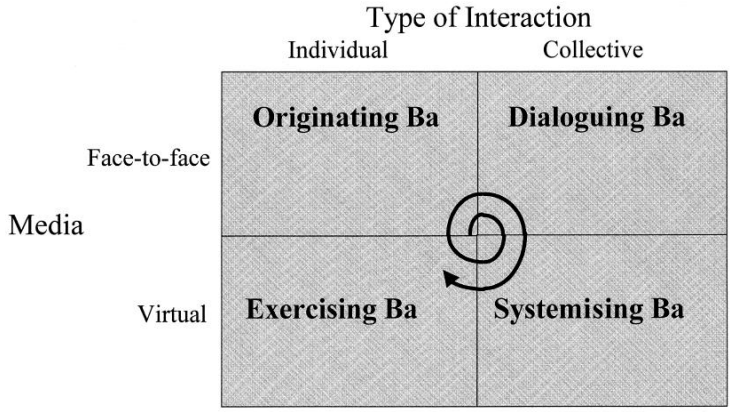

Figure 2. Four types of *ba* (Nonaka et al. 2000).

As the figure suggests, a total of four types of *ba* have been identified: originating *ba*, dialoguing *ba*, systemising *ba* and exercising *ba* (Nonaka et al. 2000, 16-17). *Ba* and its four different characterisations will be dealt with in chapter 2.6.2 which introduces the knowledge creation elements (Nonaka et al. 2000).

Ba has been said to resemble (Nonaka et al. 2000, 15) communities of practice (Wenger 1998; Wenger et al. 2002; Wenger 2004) although Nonaka et al. (2000, 15) have stated that whereas *ba* needs energy to operate, communities of practice remain functional, to some extent, even though they are neither nurtured or maintained.

From the knowledge communication perspective and based on the research questions presented above, the objectives of this study are as follows. First, the theoretical objective is to study how and to what extent Nonaka & Takeuchi's (1995) knowledge creation theory is culturally bound and second, the empirical objective is to find out how knowledge is actually shared and communicated in a multicultural project environment and what its challenges are.

How this study will attempt to address these questions and objectives will be further discussed in the methodology section. At this point, it should be noted that knowledge communication, language and cultural identity are pivotal in regards to studying knowledge communication in MNC context and to study these fields, or dimensions, is

highly challenging because when informants are directly asked about them, the interviewer simultaneously affects the answers thus creating a shared context with the interviewee (Hirsjärvi & Hurme 2006, 52). Therefore, interview questions and researcher's impact to the context and object of study will also be discussed later in chapters 3 and 4.

1.4 Overview of the Study

This study is divided into six main chapters. The first chapter introduces the research problem and defines the niche, while the second chapter focuses on previous literature on intercultural communication and knowledge management, and presents a legitimised argument that culture should be seen as a tool when creating new knowledge. Research methodology and methods are presented and their limitations and advantages evaluated in the third chapter. The fourth chapter describes the research context and argues why it is useful to address contextual matters. The fifth chapter comprises of research findings, which were unearthed by utilising the research methodology presented in chapter three. Finally, the sixth chapter concludes the study by presenting suggestions for further research and managerial implications.

2 LITERATURE REVIEW

The literature review is divided into four parts. In the first part previous literature on intercultural communication from the cultural identity's view point is discussed while part two focuses on current trends in knowledge management. Third part of this literature review brings together the previous two parts and the gaps unearthed from the previous literature are discussed and reviewed. Finally, Nonaka & Takeuchi's (1995) organisational knowledge creation theory is presented and its limitations discussed.

Previous literature suggests that knowledge without communication is the same as society without language (Nonaka & Takeuchi 1995; Burgess 2005; Dyer & Nobeoka 2000; Eppler 2007; Mohr 2007). Knowledge creation models (Choo 1998; Nonaka & Takeuchi 1995), however, do not explain how to communicate knowledge and thus transfer knowledge between or even inside organisational units. Furthermore, if we presume that knowledge is shared in lingua franca environments (Louhiala-Salminen et al. 2005), managing knowledge communication in such environments needs to be paid extra attention because of the different meaning systems individuals have to interpret their surroundings. Thus, the impact of culture (Burgess 2005; King 2008; Liebowitz 2008) and cultural identity become equally important in terms of knowledge communication.

The questions and notions presented above are considered as focal for the following two reasons. First, previous studies on knowledge management have regarded cultures of any kind as rather static or something controllable (De Long & Fahey 2000; Bollinger & Smith 2001; Oliver & Kandadi 2006). However, identifying organisational culture as an obstacle to share knowledge between organisational units is a hasty judgment because culture cannot operate as an agent of any kind. Instead of identifying culture as an obstacle we could, for example, identify interpersonal dissimilarity (Mäkelä et al. 2007) or language issues (Louhiala-Salminen et al. 2005) as obstacles to transfer knowledge between organisational units. Second, knowledge transfer and

communication between individuals is a unique and a complex phenomenon involving meanings and interpretations (Nonaka 1991). Because knowledge communication events tend to be contextual and unique (Nonaka & Konno 1998), gaining better understanding on what happens within these events and seeing culture differently than before guide this study.

Bearing the issues related to language and contextuality in mind, the current literature on intercultural communication and knowledge management will next be discussed. Following the concept of oneness (Nonaka & Takeuchi 1995), literature on intercultural communication and knowledge management are first presented separately in order to better synthesise them from this study's point of view. The final section of this chapter combines the aforementioned fields.

2.1 Culture and Intercultural Communication in Multinational Corporations

Although this study does not take for granted the role of culture in communicating knowledge, culture is nevertheless seen as an inseparable part of social interaction (Jameson 2007). Karppinen (2006) states that by becoming aware of different knowledge creation patterns between Finland and Japan individuals could get ideas of how creativity could be developed. Furthermore, Beamer (1995) suggests that a schemata model can help us approach an understanding both our cultural background and that of the other's. This study does not aim at promoting cultural stereotypes (McSweeney 2002) but by identifying and embracing diversity we can become more creative and innovative. Finally, when discussing culture it should be noted that some authors believe there are numerous levels of culture (Schein 2004) while some authors claim that cultures or cultural dimensions *per se* do not exist (Hofstede 2002). Thus, instead of analysing what culture is and is not, we should regard culture as a tool to solve problems.

In previous studies, culture has been defined and conceptualised in numerous ways though some researchers (Jameson 2007; Collier & Thomas 1988; Bucher 2008; Kampf

2008) attempt to shift the focus from defining culture to understanding culture and cultural identity. However, majority of the research and management literature (see e.g. Hall & Hall 1990; Hampden-Turner & Trompenaars 2000) is still based on the functionalist approach to culture, implying that culture consists of variable which can be externally manipulated. Although some scholars have (e.g. McSweeney 2002) Hofstede (1991) is seen as one of the pioneers of a functionalist approach to culture, some scholars (e.g. McSweeney 2002) have misinterpreted his findings while other researchers (Smith 2002) aim at opening new paths from Hofstede's extensive work. Hofstede (2002, 1355) responded to McSweeney's (2002) critique by saying 'dimensions do not exist'. By this Hofstede meant that cultures should not be categorised by his five dimensions but they should be regarded as open systems (1991). Schwartz (1999), on the other hand, analysed the linkage between cultural values and work in numerous countries although his research did not represent the functionalist approach to culture. However, Kampf (2008) points out that the problem is that if we attempt to define something as vague as culture, something is always left out.

Because of the functionalist approach to culture, many scholars have equated nationality with culture. Edward T. Hall (1970), for example, speaks about high and low context where high context refers to implicit communication and low context to explicit communication. He continues that "it is thus possible to order the cultures of the world on a scale from high to low context" (Hall 1990, 7). Hall typically marked Japanese culture to represent high context and American culture to low context. Despite the wide array of definitions to culture, many studies in the field of business (Ford & Chan 2003; Selmer 2007; Messner 2008) still rely on the seminal work by Hofstede by trying to understand contemporary phenomena through research data collected over thirty years ago. The problem here is that scholars after Hofstede have misinterpreted his work by focusing on the research results rather than on his notion of cultures as open systems (Hofstede 2002). Moreover, many studies currently focusing on cultures in organisations characterise culture as a static force (Ardichvili, Maurer, Li, Wentling & Stuedemann 2006, Oliver & Kandadi 2006) in order to control it to produce more favourable environments towards knowledge sharing, for example.

Many studies in the field of business involving culture can be characterised by their view of culture as something static and thus controllable (Ford & Chan 2003, 13). While these studies tend to shed light on organisations as complex ecosystems, at the same time they also prevent us from seeing what happens in organisations outside their definitions of culture. Relying too much on cultural differences can have a negative effect on managerial communication, for example, if communicated messages are customised based on cultural stereotypes, which do not hold in the current business context.

As noted earlier, culture is much more than just an equation with nations or a static attribute. Artists, for example, may have much more in common with each other than with their fellow citizens. As Collier & Thomas (1988) discuss, intercultural communication can, at some point, become intracultural which implies that culture as a defining attribute is always on the move. It can be said that through globalisation the borders of the traditional nation states have become blurred, which has paved way for other influences. From the functionalist approach to culture and Collier & Thomas' (1988) notion of culture as something always on the move I can draw my final synthesis on how we should regard culture in relation to the multinational corporation and knowledge communication context. Before going to the synthesis, Jameson's (2007) and Collier & Thomas' (1988) concept of cultural identity will be discussed to show how it helps us better understand culture in the knowledge communication context.

2.2 Cultural Identity in the Knowledge Communication Context

The purpose of this section is to illustrate how we can become more aware of knowledge communication practices through the concept of cultural identity. Despite being distinct from the bulk of culture literature in the business discipline, the concept of cultural identity was already introduced twenty years ago by, for example, Collier & Thomas (1988). Recently Jameson (2007) has addressed the need to move towards it in the business communication discipline. According to Jameson (2007, 201) cultural

identity is about understanding one's own cultural identity, not that of others. She explains that analysing others is more common and often taken for granted in business communication studies, but sometimes there can be seen more variance within cultural categories than between them. Given that we know little of ourselves, how can we understand others if our conceptions about ourselves do not rest on a solid foundation? Thus, the purpose of this section is to illustrate how we can become more aware of knowledge communication practices in MNCs through the concept of cultural identity.

Previously culture has been seen as a sort of primus motor behind nearly every human action, but Jameson (2007, 207) claims that cultural identity is only a part of individual identity. In fact, Jameson (2007, 208) suggests that individual identity consists of six different aspects of identity (Figure 3).

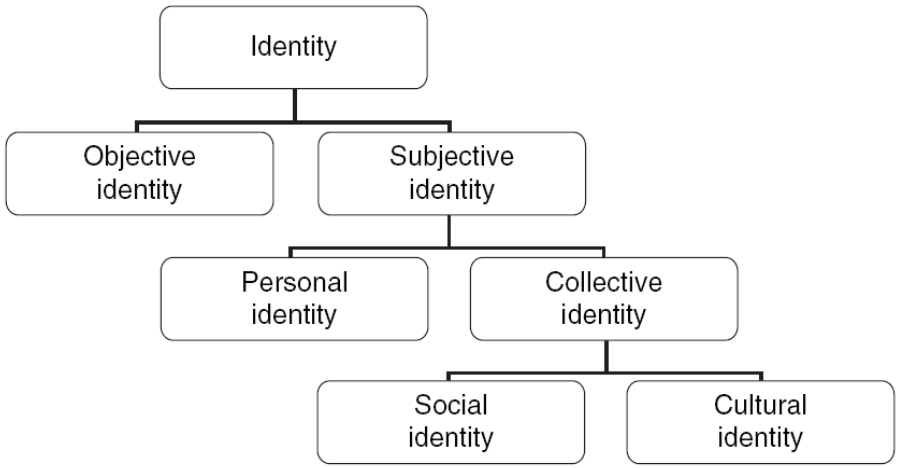

Figure 3. Classification of individual identity (Jameson 2007, 208).

First, individual identity can be seen to consist of both objective and subjective identity. According to Jameson (2007, 207) objective identity covers formal information, for example, birth certificate, social security number and tax information. Subjective identity, on the other hand, refers to individual's conception of who he/she really is. Thus, objective identity is obtained through formal procedures, whereas the subjective identity is a collection of individual's memories, experiences and so forth.

Objective identity is an area where the individual has little or no influence over matters (for example, social security number is issued by the government and the individual cannot decide its numerical composition), whereas social identity is a continuum of past, present and future events and experiences. Subjective identity is broken down into personal and collective identity, of which the former covers characteristics unique to the individual. Collective identity, however, is further divided into social and cultural identities, of which the social identity refers to the social group the individual presently feels attached to. For example, at one point in, an individual may consider belonging to 'students' and after graduating he/she may switch to 'employees'. Although social identity is closely connected with social strata, meaning that to some extent an individual cannot decide which group he/she belongs to, ultimately individual identifies to the social stratum to which he/she feels most connected.

Cultural identity, on the other hand, is somewhat more complex than social identity because it "involves historical perspective, focusing on the transmission of knowledge and values between generations" (Jameson 2007, 207). The process of transmitting intergenerational knowledge is by no means always conscious nor obvious and it is up to the individual to construct his/her own cultural identity. As Jameson (2007, 219) continues, cultural identity may change over time. Cultural identity, then, is a complex construction of different layers and it is affected by the people surrounding an individual. However, cultural identity does not change overnight but rather it is the result of a continuous discourse between self and others.

Jameson (2007, 211) claims that cultural identity consists of six components; these, in turn, are related to groups with which individuals can feel attachment. These components are shown below in Table 1.

Table 1. Components of cultural identity (adapted from Jameson 2007, 211).

Component	**Factor**
Vocation	Occupational field, employing organization

Class	Economic class, social class
Geography	Nationality, city identification
Philosophy	Religious identity, political identity
Language	First language, dialect
Biological traits with cultural aspects	Gender, age

As the table above shows, an individual can relate to numerous groups. Previously culture was seen only to be of relevance with nationality, but Jameson (2007) suggests that cultural identity is more than the sum of its parts. By becoming aware of the components constituting to individual's identity helps us to see why national culture does not always tell the whole truth.

2.3 Culture Regarded as a Problem Solving Tool

If we shift the focus from defining culture to understanding culture as a medium or a tool regarding cross-cultural issues as a source of knowledge we can get new perspectives on both studying and constructing knowledge management initiatives in organisations (Holden 2002, 98). Karppinen (2006), for example, argued that Finns learn by rule because of our language and writing system while Japanese learn by doing because of their linguistic heritage. Therefore, based on the work by Holden (2002) and Karppinen (2006), culture can serve as a problem solving tool and as a medium to further communicate knowledge to others.

Cultural differences will continue to exist but every individual has his/her unique combination of cultural identity which we simply cannot equate with nationality (Jameson 2007, Collier & Thomas 1988). Furthermore, as Hofstede (2002) suggested that cultural dimensions do not exist, similarly we should shift our focus from trying to understand 'cultural differences' to embracing cultural diversity as a new way to solve problems and create new knowledge. In her study, Karppinen (2006) acknowledged the

differences between Finnish and Japanese ways of creating knowledge and she suggested that through differences individuals would become more aware of possible solutions for a given problem. Nonaka & Konno (1998, 41) also identified the importance of transcending one's limited boundaries. They continue that knowledge creation is possible only if one is able to see the matter from multiple angles. Thus, culture can be seen as a tool to solve problems.

2.4 Knowledge Management as an Intersection of Disciplines

The aim of this section is to present the current state of knowledge management research and how knowledge has been defined. Furthermore, how culture and knowledge are inextricably bound will be also discussed.

Knowledge, or intangible intellectual capital, as Ståhle & Grönroos (2000) suggest, has been defined in various ways, ranging from Plato's definition of "justified, true belief" to Lyotard's (1985) "knowledge as training and culture". Before we go further in discussing the different definitions of knowledge, how knowledge differs from data and information should be first covered in order to better understand how knowledge relates to data and information.

Nonaka & Takeuchi (1995, 58) argue that knowledge and information differ from each other in three ways. First, knowledge is based on beliefs whereas information comes from scientific measurements, for example. Second, knowledge has a function, that is, it serves a given purpose in a given point of time. Finally, knowledge is useful only in its context while information remains the same even though its context would change. These three observations show that while knowledge and information possess different characteristics, information is still one of the building blocks of knowledge. As several other authors (Machlup 1983 in Nonaka & Takeuchi 1995, 58; Dretske 1981 in Nonaka & Takeuchi 1995, 58) point out, information can either alter or yield knowledge. Additionally, data can be separated from information and knowledge by defining it as information not yet categorised.

The distinction between information and knowledge becomes more apparent when we transfer them to communication theories. In 1949 Shannon and Weaver (in Fiske 1990, 6) published their seminal work on communication theory. Initially their attempt was to study how communication channels could be used in the most efficient way and thus their emphasis was on measuring quantity (i.e the maximum amount of information sent through one channel), although they claim their theory is valid in every communicational situation (Fiske 1990, 6). From the knowledge communication perspective, however, their theory is interesting because it does not make any distinction between information and knowledge and hence it suggests that individuals share identical mindsets. However, as Beamer (1995) and Jameson (2007) claim, this is hardly the case and usually miscommunication takes place when the parties engaged in communicational activity do not share identical mindsets. Similarly Peirce's (1931-1958) theory on semiotics attempts to address the issue of not having identical mindsets. During his lifetime, Peirce received little attention or interest towards his theory of signs, although during the most recent decades his work has been rediscovered and it has finally received a pivotal position in philosophy and communication studies. However, despite his seminal work on how people make sense of their surroundings and how objects and thoughts are intertwined, knowledge management and communication as research areas have shown little or no interest towards utilising it. From the standpoint of tacit and explicit knowledge, consider the following observation by Peirce:

> *A sign, or representamen, is something which stands to somebody for something in respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign.* (Peirce 1955, 99)

Although Peirce was never interested in knowledge *per se*, his work contains many interesting notions on knowledge. From the excerpt above, a sign can be argued to have close connections with the tacit dimension of knowledge (Nonaka & Takeuchi 1995,

Polanyi 1998) because it refers to something a person has a conception of. This, of course, does not meet all of the tacit knowledge's requirements, but the crucial point here is to see the overall picture. Until recently, Nonaka had regarded tacit and explicit as rather independent, but currently Nonaka (2008) understands tacit and explicit as inseparable. Peirce's contribution to knowledge communication will be discussed in detail in the chapter dealing with the theoretical framework, but his work helps to better understand here how tacit and explicit knowledge are actually inseparable. Furthermore, as Peirce (1955, Fiske 1990) suggests, individuals interpret signs in unique ways which can be seen to have similarities with tacit knowledge.

Thus, communicating knowledge should not be equated with communicating information because the former can involve subjective elements (such as context, emotions and intuition) whereas the latter is mainly concerned with transmitting factual data. Moreover, a universal definition of knowledge does not exist, thus making understanding knowledge communication even more difficult. However, we can, as Plato (2003) has claimed in the Ancient Greece, argue that people accumulate knowledge through perception. Therefore, knowledge can be understood as perceptions of the reality translated into communicative form. But in the profit-driven business organisation context, knowledge - or our perceptions of the reality - needs to serve a specific purpose which is why knowledge management scholars have attempted to conceptualise knowledge, to attach a function to it.

Definitions of knowledge differ greatly between disciplines, especially between epistemology (Polanyi 1998; Sosa 1995) and knowledge management (Dalkir 2005) mainly because they look at knowledge from different angles and knowledge management as a discipline is still being shaped by neighboring disciplines (Nonaka & Peltokorpi 2006). Therefore, in the field of knowledge management, Plato's definition of knowledge is regarded as rather static and non-human view of knowledge (Nonaka, Toyama & Konno 2000, 7). Dalkir (2005, 2), for example, proposes the following knowledge characteristics:

- Knowledge can be used unlimitedly
- Transferring knowledge does not reduce the amount of knowledge
- Knowledge is all around us but the ability to use it is rare
- Most of the knowledge in organisations is lost after employees leave their work

The characteristics listed above do not propose a universal truth of knowledge because knowledge is always highly subjective and thus it cannot be measured scientifically (Polanyi 1998, 3). However, one way to define knowledge lies at the intersection of Nonaka's theory and Peirce's semiotics. On the one hand, tacit knowledge is built on our interpretations of the world (i.e signs), while on the other hand, tacit knowledge is made explicit through dialogues with other people. By engaging in dialogues to share our signs with those of the others', we transcend our personal borders, which is characteristic for *ba*s (Nonaka & Konno 1998, 41). Despite, or because of, this interplay between tacit/explicit and semiotics, knowledge is crucial for companies wishing to create new innovations or competitive advantages (Hamel & Välikangas 2003; Hamel 2006).

Because knowledge creation theories are interested in capturing contextual knowledge, scholars have conceptualised knowledge in a myriad of ways. Nancy M. Dixon (2000, 11), for example, distinguishes common knowledge from book knowledge or database knowledge. By common knowledge Dixon (2000, 11) refers to unique know-how that employees of a certain organisation possess while book knowledge is something generic individuals learn in school. Dixon (2000) argues that knowledge is situated between two extremes, common and book knowledge, whereas Nonaka (1994, 18) proposes that different kinds of knowledge cannot be separated from each other because they are continuously affecting each other. In contrast to Dixon's conceptualisation of knowledge, Nonaka & Takeuchi[2] (1995, 8) focus on the tacit and explicit dimension of knowledge. By tacit they mean something that is "not easily visible and expressible"

[2] Seija Kulkki (1997) also defines knowledge according to Nonaka & Takeuchi (1995) mainly because she applied their theory of knowledge-creation to multinational corporations.

and extremely personal (Nonaka 1991; Nonaka 1994; Nonaka & Takeuchi 1995; Nonaka et al. 2000; Polanyi 1998). Explicit knowledge, on the other hand, is something quantifiable, or something that can be processed into information. Nonaka & Takeuchi (1995, 8) continue that the true challenge in knowledge management and creation is communication: how to communicate highly informal and personal knowledge to others? Dixon (2000) and Nonaka & Takeuchi (1995) have distinguished knowledge in different ways and it is unlikely that a universally accepted conceptualisation of knowledge will be coined. In their article, Nonaka and Peltokorpi (2006, 81) came to the same conclusion although they suggest that the seminal work by Nonaka and his associates can provide the young and emerging discipline of knowledge management with a coherent set of definitions and methods.

Apart from definitions of knowledge and knowledge management concepts, scholars have shown growing interest towards the complex relation between culture and knowledge. According to King (2008), the relation between different cultural layers and knowledge is not as straight-forward as supposed. King & Marks (2008), for example studied two ways to promote knowledge sharing, and they found that in their research setting, control was more effective than support. King & Marks' study shows that knowledge creation theories are always contextual and thus they should always be tailored to meet the needs of the organisation. Oliver & Kandadi (2006), on the other hand, defined a ten-factor framework for promoting a knowledge culture in organisations. On the contrary to King & Marks' (2008) study, Oliver & Kandadi (2006) argue that knowledge culture can actually be managed in an organisational context. But before any organisational adjustments can be done, the issue of locating knowledge should be dealt with because knowledge without situation is information (Nonaka & Konno 1998). Moreover, Herschel (2008) argues that knowledge transfer is a complex process for two reasons. First, knowledge is dispersed in organisations and second, some knowledge is difficult to articulate thus making it difficult to manage actively (Nonaka & Takeuchi 1995). Moreover, as the discussion below suggests, scholars have previously located knowledge in two places, in the mind of the individual and in the social interaction.

Scholars have adopted two different approaches to address the issue of locating knowledge (von Krogh 1998): one approach is concerned with the individual while the other is more interested in social interaction. Dixon (2001) and Davenport & Prusak (1998), for example, argue that knowledge resides in the mind of the individual while others argue that it lies in the social interaction between individuals (Choo 1998; Nonaka & Konno 1998; Wenger 1998; Nonaka et al. 2000). Based on the current debate about the location of knowledge, a conclusion that the nature of knowledge defines its location can be drawn. Social knowledge, for example, cannot evolve without social participation; therefore it is located in the social interaction. Technical knowledge, on the other hand, required to construct a bike, for example, is controlled and enhanced by the individual and therefore it resides in the mind of the individual. Even though knowledge is located in two places, social and technical, they should not be understood as separate, but rather as complementary. For example, knowledge to construct a bike is either read from somewhere or passed down. Therefore, creating and sharing knowledge is tightly embedded to everyday life (Nonaka & Konno 1998; Wenger 1998).

Nonaka & Konno (1998) further discuss the concept of knowledge as an essential part of human interaction and they introduce the concept of *ba*[3] as an ideal mental, physical or virtual space for converting tacit knowledge into explicit. Nonaka et al. (2000) continue that knowledge is dynamic and context-specific and thus it always needs a shared context for it to become meaningful. For example, a street address alone is not knowledge *per se*, but when it refers to a meaningful or useful place, it becomes knowledge. The concept of *ba* is somewhat distinct from traditional knowledge conceptualisations (Ardichvili et al. 2006; Gupta & Govindarajan 2000). In addition to *ba*, Nonaka et al. (2000) identified two other components critical to knowledge creation, namely knowledge assets (organisation-specific knowledge in various forms) (Nonaka & Toyama 2005, 429) and the SECI model (a visualised interplay between tacit and

[3] For an in depth discussion on the emergence of *ba*, see Nishida (1990) and Shimizu (1995).

explicit knowledge). These components are now analysed in detail to justify why they are utilised in this study.

The SECI model is a visualisation of Nonaka & Takeuchi's (1995; Nonaka et al. 2000) theory of knowledge creation and it is derived from four phases which are as follows: Socialisation, Externalisation, Combination and Internalisation. The first phase "is the process of converting new tacit knowledge through shared experiences" (Nonaka et al. 2000). The authors argue that in this phase knowledge is most difficult to share and formalise because of its tacit nature. In the second, externalisation, phase, tacit knowledge is converted to explicit knowledge through documents and technical manuals. The combination phase is a stage for making existing explicit knowledge into more complex explicit knowledge by gathering information from inside and outside the organisation. Finally, in the fourth, internalisation, phase, explicit knowledge is converted back to tacit knowledge through action and practice. (Nonaka et al. 2000)

Second element of Nonaka & Takeuchi's (1995) theory of knowledge creation is the concept of *ba*, which is a Japanese word for 'place' (Nonaka & Konno 1998). Nonaka & Konno (1998, 41) argue that knowledge is created in shared contexts, *ba*s, and they can exist in every organisational level. They state that "to participate in a *ba* means to get involved and transcend one's own limited perspective or boundary" (Nonaka & Konno 1998, 41). Thus, like culture, *ba* is a visualisation of processes occurring between individuals or groups of individuals. There are a total of four types of *ba*[4] that correspond to the four stages of the SECI model. These characterisations are as follows: Originating *ba* in the socialisation phase, Dialoguing *ba* in the externalisation phase, Systemising *ba* in the combination phase and Exercising *ba* in the internalisation phase. Different *ba*s aim at speeding up knowledge creation and manager's role is to nurture and develop these *ba*s (Nonaka et al. 2000).

[4] Nonaka & Konno (1998) previously characterised the four types of *ba* differently, but with identical functions.

Third, and final, element essential for Nonaka and his associates' knowledge creation theory are the four types of knowledge assets that also have a corresponding component in the SECI model (Nonaka et al. 2000). Thus, knowledge assets are identified as inputs, outputs and moderating factors in the knowledge creation process (Nonaka et al. 2000).

2.5 At the Crossroad of Intercultural Communication and Knowledge Management

Above I have reviewed and discussed the previous literature relevant to this study. Through synthesising the disciplines of intercultural communication and knowledge management I will show how these two disciplines are interrelated and how this study can help bridging the gap between them.

As Nonaka et al. (2000) pointed out, knowledge is context-specific and it needs a shared context to be meaningful. Numerous scholars (Mäkilouko 2004; Peltokorpi 2007; Selmer 2007; Mohe 2008) have previously found that culture is seen as a barrier for shared contexts but only a few studies on cultural patterns in knowledge creation (see e.g. Karppinen 2006) have been carried out. However, previous literature does not suggest how to communicate and share knowledge in multicultural project environments; therefore the existence of this study is justified. In the third chapter I will attempt to show how the disciplines of intercultural communication and knowledge management can become more intertwined in the SECI model by trying to understand them through hermeneutic methodology and semi-structured interviews. Before doing so, the theoretical framework will be presented and discussed in the next section.

2.6 The Theory of the Knowledge-Creating Firm Revisited

Nonaka & Takeuchi's (1995) knowledge creation theory and its components have already been discussed briefly above but to gain a more comprehensive picture of it and

the dynamics between tacit and explicit knowledge, the theoretical framework is now presented and discussed in a single section. Peirce's (1931-1958) seminal work on semiotics is integrated to the theory to bridge the gap between knowledge sharing and knowledge possession. In addition, critique to and limitations of the theoretical framework are discussed.

2.6.1 The Organisational Knowledge Creation Theory

Before *The Knowledge-Creating Company* (1995), Nonaka and Takeuchi had published several articles (Takeuchi & Nonaka 1986; Nonaka 1991; Nonaka 1994) leading to the formulation of organisational[5] knowledge creation theory. In the beginning, Nonaka (1991; 1994, 16-17) proposed that knowledge creation consists of two dimensions, namely ontological and epistemological, which constantly affect each other. The epistemological dimension was further divided into tacit and explicit knowledge (Nonaka 1994, 16; Leonard & Sensiper 1998; Polanyi 1998) while the ontological dimension refers to interplay between individuals and/or organisation (Nonaka 1994, 17). The two dimensions were then brought together to illustrate the spiral through which knowledge is constantly created, and thus the SECI model (Figure 3) (Nonaka 1994; Nonaka & Takeuchi 1995) was formulated.

[5] Nonaka and his associates sometimes use the terms 'firm' and 'organisation' interchangeably although in the most current publications (Nonaka & Toyama 2005; they refer to firms rather than organisations. The shift towards firms is justified by Nonaka et al.'s (2000) argument that companies achieve competitive advantages through knowledge. In this study, however, the terms discussed above are used interchangeably.

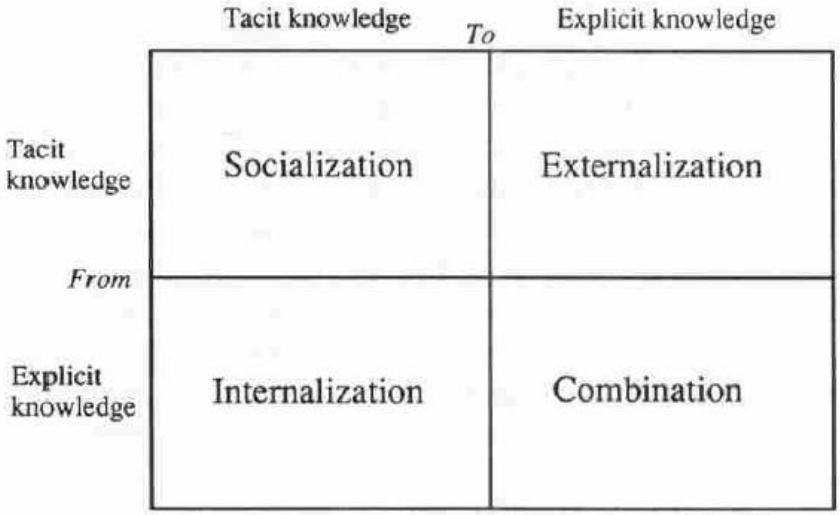

Figure 4. Modes of the knowledge creation (Nonaka 1994, 19).

The model presented above rests on the assumption that knowledge is created through conversion between tacit and explicit knowledge (Nonaka 1994, 18). The first mode, socialisation, involves converting tacit knowledge between individuals while the second mode, externalisation, occurs when tacit knowledge is made explicit. While combination, the third mode, deals with combining new explicit knowledge with existing explicit knowledge, internalisation - the fourth mode - converts explicit knowledge back to tacit knowledge. (Nonaka 1994, 18-19)

2.6.2 The Three Knowledge Creation Elements

Few years later, Nonaka and his associates (Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2003; Nonaka & Toyama 2005) reformulated the knowledge creation theory, originally proposed by Nonaka & Takeuchi (1995), and currently it consists of three elements: the SECI process, *ba* and knowledge assets (Nonaka et al. 2000, 5). While the two previous dimensions are still intact, Nonaka et al. (2000) introduced the three elements because despite the growing interest towards knowledge in organisations, we still have not understood the dynamics behind knowledge creation (Nonaka et al. 2000, 5). The figure (Figure 4) below visualises the three aforementioned elements and shows their interplay.

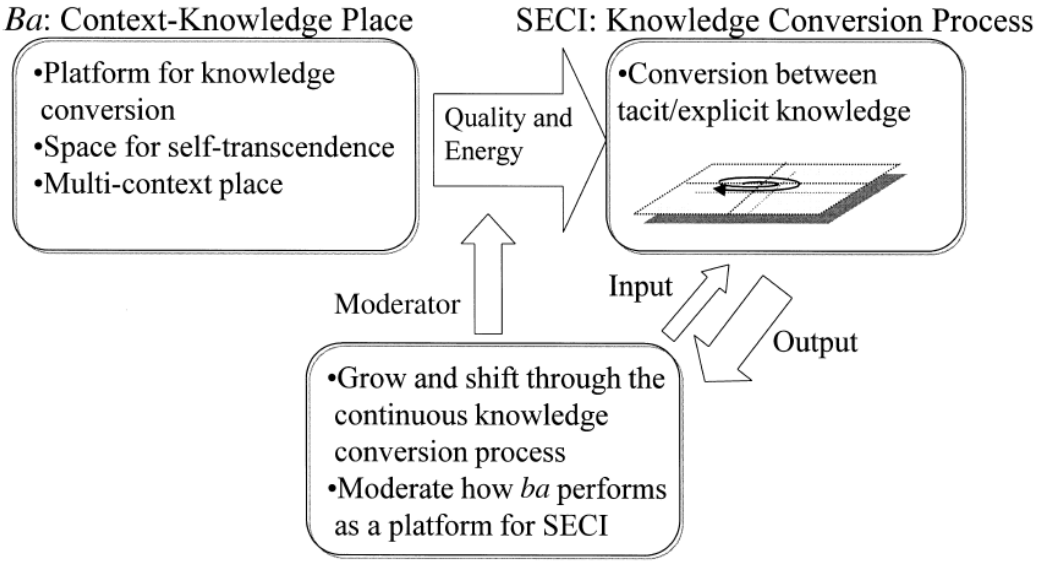

Figure 5. Three elements of the knowledge-creating process (Nonaka et al. 2000, 8).

The SECI model has already been introduced but the other two elements, *ba* and knowledge assets, will now be covered. Nonaka and his associates base their conception of *ba* to that originally proposed by Shimizu (1995 in Nonaka & Konno 1998, 40) and Nishida (1990 in Nonaka & Konno 1998, 40). In short, *ba* is a "shared space for emerging relationships" (Nonaka & Konno 1998, 40) and the space here can refer to either physical (e.g. office premises), virtual (e.g. online communities), mental space (such as ideas and ideals) or any combination formed from them (Nonaka & Konno 1998, 40). Nonaka et al. (2000, 16-17) have identified a total of four types of *ba*, which are now discussed.

First, originating *ba* is a place for individuals to share experiences, opinions and feelings face-to-face (Nonaka & Konno 1998). Second, dialoguing *ba*, on the other hand, draws on individual mental models and these are converted to collective conceptualisations. The third type of *ba*, namely systemising *ba*, aims at sharing explicit knowledge to larger groups inside - and, to some extent, outside - the organisation. Fourth, through organisation handbooks and manuals individuals convert explicit knowledge to tacit in exercising *ba*.

In addition to the SECI model and *ba*, Nonaka et al. (2000, 20) identified knowledge assets as crucial for managing knowledge effectively. Nonaka et al. (2000, 20) defined knowledge assets as "firm-specific resources that are indispensable to create values for the firm". These assets, then, form the basis for the knowledge-creating processes as inputs, outputs and moderating factors (Nonaka et al. 2000, 20). Furthermore, Nonaka et al. (2000, 20-22) propose that knowledge assets are further divided into the four following categories.

First category, experiental knowledge assets, consists of explicit knowledge expressed as hands-on skills and emotional knowledge. Experiental knowledge is tacit in its nature and Nonaka et al. (2000, 21) point out that it is difficult for competitors to imitate. Conceptual knowledge assets form the second category and they are explicit and communicated through symbols and visuals. Third, systemic knowledge assets contain systematised knowledge such as product specifications and employee manuals. The fourth, and last, category contains routine knowledge assets which, as the concept suggests, contain tacit knowledge regarded as routines in a given organisation. These four categories are summarised in the figure below (Figure 5):

Experiential Knowledge Assets Tacit knowledge shared through common experiences • Skills and know-how of individuals • Care, love, trust, and security • Energy, passion, and tension	**Conceptual Knowledge Assets** Explicit knowledge articulated through images, symbols, and language • Product concepts • Design • Brand equity
Routine Knowledge Assets Tacit knowledge routinised and embedded in actions and practices • Know-how in daily operations • Organisational routines • Organisational culture	**Systemic Knowledge Assets** Systemised and packaged explicit knowledge • Documents, specifications, manuals • Database • Patents and licenses

Figure 6. Four categories of knowledge assets (Nonaka et al. 2000, 20).

Nonaka et al. (2000, 22) suggest that all of the knowledge asset categories presented above should be mapped in order to maximise their full organisation-specific potential. Nonaka & Toyama (2005, 429) continue that knowledge assets do not only cover knowledge to use something that already exists, but also knowledge to create new knowledge. In fact, conceptual knowledge assets, for example, contain elements (e.g. product concepts and design) that require at least a certain level of minimum knowledge before they can be harnessed to create new knowledge.

2.6.3 The Organisational Knowledge Creation Theory Further Developed

During the recent years Nonaka and his associates (Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2003; Nonaka & Toyama 2005; Nonaka & Peltokorpi 2006) have further developed the organisational knowledge creation theory initially formulated by Nonaka and Takeuchi (Takeuchi & Nonaka 1986; Nonaka 1991; Nonaka & Takeuchi 1995) almost twenty years ago. In articles published in 2003 and 2005, Nonaka & Toyama have taken the organisational knowledge creation theory to the next level by revisiting old concepts, such as the SECI model, and introducing completely new elements. The theory, named as the theory of the knowledge-creating firm, now comprises a total of seven elements and the focus is now shifted from regarding organisations as static entities where tasks are carried out to seeing organisation as "an organic configuration of *ba* to create knowledge" (Nonaka & Toyama 2003, 9). The novelty here is the notion that knowledge creation cannot be explained through traditional static theories, and therefore knowledge creation can be better understood by looking at individuals and organisations. The following figure captures the essence of a knowledge-based firm and shows the dynamics between the different components.

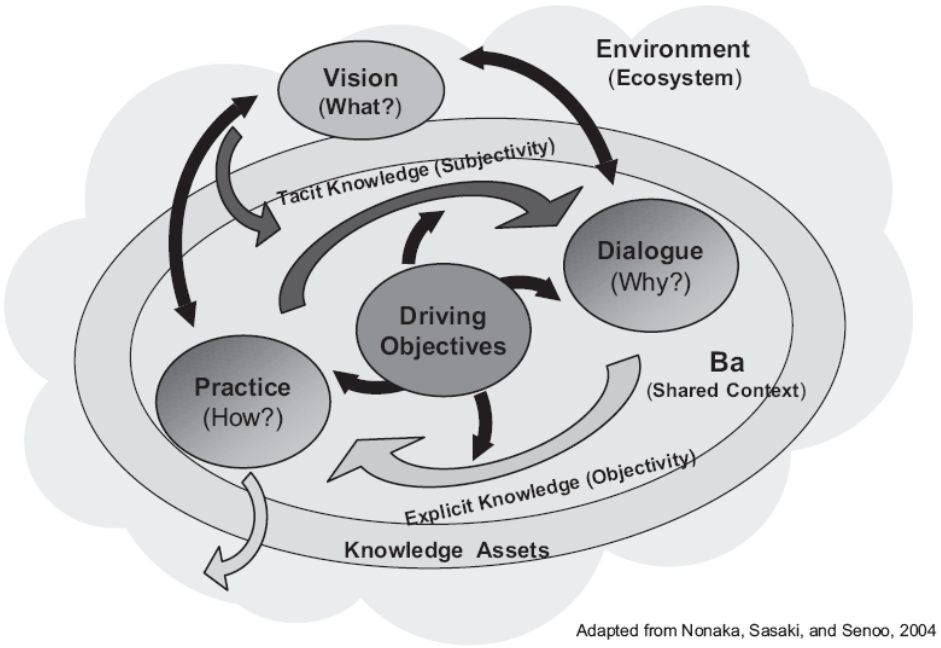

Figure 7. Basic components of knowledge-based firm (Nonaka & Toyama 2005, 423).

In addition to the SECI model, knowledge assets and *ba*, Nonaka and Toyama (2005, 423-431) introduce four new components and redefine some of the previous ones. The components are as follows: knowledge vision, driving objective, dialogue & practice (i.e the SECI model), *ba*, knowledge assets and ecosystem of knowledge (Nonaka & Toyama 2005, 423-431). Since the redefined components have not undergone any considerable changes, only the new components are next introduced briefly.

The concept of knowledge vision refers to the very underlying existential assumptions that shape the organisation itself. By asking simple yet fundamental questions dealing with the organisation's existence and agenda, the knowledge vision can be formulated. Through answering these questions the members of the organisation can become aware of the direction the knowledge vision is taking the organisation. The knowledge vision, however, is difficult to change because it rests on the very foundation of the organisation itself, its *raison d'être*. In conclusion, knowledge vision motivates knowledge creation by communicating what is considered as important and where the organisation is heading for. (Nonaka & Toyama 2005, 424)

While knowledge vision deals with the question 'what?', driving objective is connected to the question 'why?'. The driving objective is required to crystallise the knowledge vision, to make it concrete or sometimes even tangible. In other words, knowledge vision can be seen as the goal where as the driving objective is the force that pushes the organisation towards its goal. (Nonaka & Toyama 424-425)

The last of the three new components, the ecosystem of knowledge, is the dynamic environment where managerial and strategic decisions are made. Rather than being separate entities, organisations exist in larger environments and thus decisions taken inside an organisation are never executed in a vacuum but the environment constantly affects decisions and vice-versa. Before organisations can harness the ecosystems, the interplay between organisations and their environments must be first understood. However, the ecosystem of knowledge implies that organisations need to be open to some extent in order for the interplay to function properly and this poses a problem regarding knowledge protection. (Nonaka & Toyama, 430-431)

2.6.4 Critique of the Nonaka's Knowledge Creation Theory: Validity and Epistemology

Gourlay (2003; 2006a; 2006b) has perhaps been one of the productive critics of Nonaka & Takeuchi's theory. He has claimed their theory contains two fatal flaws: the vague concept of tacit knowledge and the SECI model and its empirical validity (Gourlay 2006a; 2006b). These two issues will be addressed below.

First, while not a direct critique to Nonaka & Takeuchi's (1995) theory, Gourlay (2006b) argues that the concept of tacit knowledge contains contradictions which actually make it an obstacle towards change rather than a change agent itself. Furthermore, Gourlay (2006b) doubts whether tacit knowledge actually can be converted into explicit knowledge while it is said to be highly personal.

Gourlay (2006b, 61) states that tacit knowledge is embedded in traditions, and traditions further refer to something conservative, but Takeuchi (1994), for example, never made a connection between tacit knowledge and tradition. In fact, according to Nonaka (1994, 16), "tacit knowledge is deeply rooted in action, commitment and involvement in a specific context" which does not suggest any kind of connection between tacit knowledge and tradition.

Second, Gourlay (2003; 2006a) has pointed out that the SECI model still lacks some empirical evidence although, as it was already mentioned in the section 1.3, the theoretical framework has already been empirically tested, but only in Japan which is why it requires further validation in other contexts, as well. In addition, Jorna (1998) states that Nonaka & Takeuchi's (1995) theory lacks a semiotic framework which would be essential in conveying "schemata, paradigms, beliefs and viewpoints that provide 'perspectives' that help individuals to perceive and define their world" (Nonaka 1994, 16).

The critique posed by Gourlay (2003; 2006a; 2006b) and Jorna (1998) are useful because they advance the theory originally formulated by Nonaka (1991; 1994). However, recently Nonaka (2008) has claimed that knowledge should be regarded as a continuous flow implying that tacit and explicit are inseparable. Furthermore, he also states that since knowledge should be regarded as a constant flow, it is impossible to break knowledge down into smaller pieces and to study these separately[6]. While the notion of seeing knowledge as a flow requires empirical validation, it is mentioned here as a reply to Gourlay's (2003; 2006a; 2006b) critique. In addition, by integrating Peirce's work on semiotics to Nonaka and his associates' theory of the knowledge-creating firm, the call for a more sound semiotic foundation should now have been better taken into account.

[6] Although Nonaka (2008) did not implicitly mention why knowledge should be regarded as a constant flow, it can be argued that one of the reasons here was to defend from the critique posed by Gourlay (2003).

In conclusion, while Gourlay (2006b) has criticised the way how every researcher has his/her own definition of tacit knowledge, attempts to characterise tacit knowledge as a one dimensional phenomenon would result in leaving something outside (Kampf 2008). Therefore, to be able to see tacit knowledge from multiple angles helps us to study how people actually share tacit knowledge with each other.

2.6.5 The Semiotic Theory of the Knowledge-Creating Firm

Critics (Jorna 1998) to the theory of the knowledge-creating firm have claimed that it lacks a semiotic dimension which eventually leads to only partial understanding of knowledge creation and sharing. By combining the work of Nonaka and his associates (1991, 1994, 2008; Nonaka et al. 2000; Nonaka & Toyama 2005) with Peirce's elements of meaning (1931-1958 in Fiske 1990, 42) this study attempts to extend Nonaka and his associates' theoretical framework. As a result, the semiotic theory of the knowledge-creating firm is constructed.

In contrast to the process school of communication (Fiske 1990, 2), Peirce's work is closely connected to the semiotic school which "is concerned with how messages, or texts, interact with people in order to produce meanings". By introducing semiotics to the theory of the knowledge-creating firm we are able to better understand how and why knowledge sharing takes place. The SECI model, for example, (Nonaka et al. 2000) is based on the assumption that individuals understand each other completely in terms of tacit knowledge. The problem here, however, arises from the differences between individual identities (Jameson 2007); without any common ground, there is a danger that tacit knowledge is misunderstood by the receiver and this can create frictions or even flaws in the knowledge creation spiral. In the following paragraphs, Peirce's elements of meaning are presented and integrated to Nonaka's knowledge creation theory.

According to Peirce (1931-1958 in Fiske 1990, 41-42) meaning is constructed in a triangular form between the sign, the object and the interpretant (Figure 8).

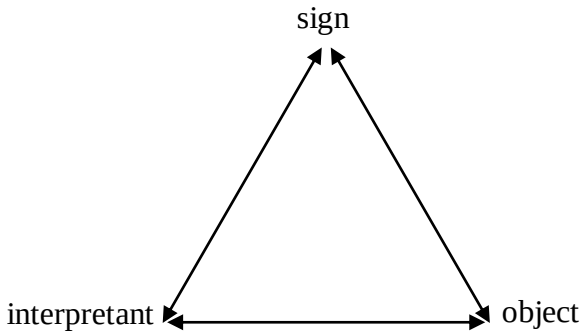

Figure 8. Peirce's elements of meaning (adapted from Fiske 1990, 42).

The double-ended arrows highlight the relation between the three elements: if one element is missing from the equation, the end result (i.e 'meaning') is inadequate. According to Peirce (in Fiske 1990, 42) "a sign refers to something other than itself" where 'other' is called an object. The interpretant, then, interprets sign-object duality and completes the triangular relation. Consider the following example which illustrates the relation between the three abovementioned elements: the word 'prison' (a sign) can refer to a physical object of which the interpretant has his/her individual conceptions and experiences. How, then, does this help us understand knowledge creation and sharing? The following figure attempts to show cultural identity corresponds to the semiotic theory of the knowledge-creating firm.

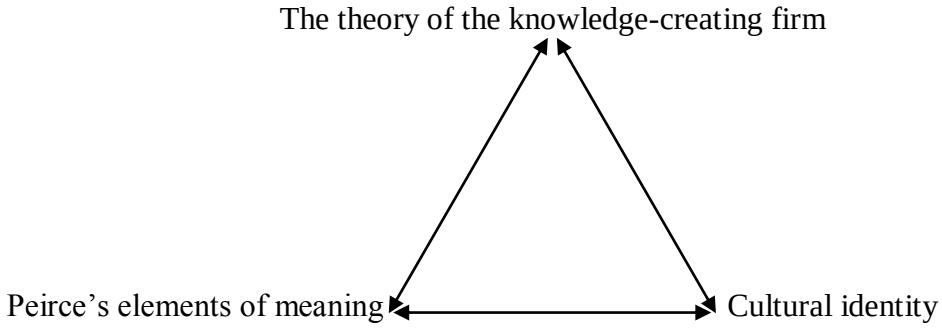

Figure 9. The semiotic theory of the knowledge-creating firm and cultural identity synthesised.

Two notions arising from the figure above need to be addressed. First, knowledge in the theory of the knowledge-creating firm is not created in a vacuum implying that individuals possess unique cultural identities and systems to produce and interpret meanings. Second, individuals need not have identical mindsets but they are required to understand that their mindset and cultural identity may differ from that of others (Beamer 1995).

By combining the three elements mentioned above, I have attempted to create a synthesis of Nonaka and his associates' theoretical framework, Peirce's work on semiotics and the concept of cultural identity, thus making a more relevant tool to analyse knowledge communication in the MNC context where individuals constantly face different cultural identities and systems of meaning in their daily work. In the beginning of this chapter, this combination was named as the semiotic theory of the knowledge-creating firm.

To illustrate how the suggested extension to Nonaka and his associates' work can help us study knowledge sharing in MNC contexts, consider the following example. As some of the respondents in this study stated, Finns and Indians react differently to open-ended project specifications. Whereas Finns were able to start working with incomplete specifications, their Indian counterparts wanted to reach an agreement on specifications before any work was started. Project specifications as sources for documented knowledge had different meanings to Finnish and Indian team members. Even though they were operating with the same object, (i.e 'project specification') the team members had different meanings for the project specification document (i.e sign in Peirce's theory). Bearing the diversity of meanings in mind, Nonaka and his associates' theoretical framework is concluded in the following section with the semiotic dimension integrated to it.

2.6.6 Nonaka and His Associates' Theoretical Framework Concluded

In the beginning of this chapter, the theoretical framework was called the knowledge-creation theory (Nonaka 1994; Nonaka & Takeuchi 1995) but as Nonaka and his associates (Nonaka et al. 2000; Nonaka & Toyama 2003; Nonaka & Toyama 2005; Nonaka & Peltokorpi 2006) further developed the theory, it became known as the theory of the knowledge-creating firm. This shift was seen as necessary to better understand the dynamics behind knowledge-creation. What started as a notion of two dimensions, namely tacit and explicit, of knowledge soon evolved into a theory that attempts to explain why companies exist and how competitive advantages are created.

The theory of the knowledge-creating firm consists of seven components which were presented and discussed above. While critics have claimed that the theory lacks empirical validity, and that the duality of tacit and explicit knowledge is hard to study, Nonaka and his associates' seminal work in the field of knowledge management helps us to better see how people share and create knowledge. However, the theoretical framework does not reveal why people share knowledge nor can it be regarded as the only theory of knowledge-creation. Choo (1998), for example, speaks for the knowing cycle and the knowing organisation. Nevertheless, credit has to be given to Nonaka and his associates for developing the theory of the knowledge-creating firm and this study aims at contributing to this same flow of knowledge by extending it in a cross-cultural direction.

In conclusion, this study has suggested a semiotic dimension to be integrated to Nonaka and his associates' seminal work on knowledge creation. As a result, the semiotic theory of the knowledge-creating firm was presented.

2.6.7 Limitations Posed by the Original Theoretical Framework

This chapter is concluded by presenting the possible limitations that arose from the original theoretical framework formulated by Nonaka and his associates. Three

limitations - cultural context, knowledge and power - are identified and discussed. In addition, there are at least two reasons why identifying the limitations is useful. First, identifying the limitations signals that the researcher focuses on the relevant questions and thus the results correspond with the research questions. Second, acknowledging the limitations attempts to fill the theoretical gaps. For example, Nonaka & Takeuchi's (1995) theory has not been studied outside the Japanese organisational context so far, but acknowledging this limitation can advance their theory by either strengthening or weakening it.

First, Nonaka & Takeuchi's (1995) theory of organisational knowledge creation has not been tested outside Japanese organisation context. This, however, is not an ultimate limitation but it nevertheless has to be acknowledged because their conception of knowledge is, as they put it, somewhat distinct from the dualistic Western conceptualisation of knowledge (Nonaka & Takeuchi 1995).

Second, Nonaka & Takeuchi (1995) have defined knowledge as involving two dimensions, tacit and explicit. Furthermore, they regard knowledge as "a justified, true belief" (Nonaka & Takeuchi, 1995) which may exclude something others would regard as knowledge. Similarly with the definition of culture, if we try to fit knowledge into one category, something might be left unnoticed. Knowledge can be defined through its objectives, but still Nonaka & Takeuchi (1995) chose to define knowledge at least in some way. As Gourlay (2006b) points out, tacit knowledge is a tricky concept. In conclusion, what is understood as knowledge varies across cultures, which is why extra attention should be paid to it when studying knowledge sharing in MNCs.

The third limitation involves power individuals use towards each other in organisational settings. There is a tendency in the knowledge management discipline to believe that knowledge sharing and creation occurs without any sense of power. Mäkelä et al. (2007), however, found that people tend to share knowledge with people they relate to most, but yet they did not mention how power and who controls it affect knowledge

sharing. Although the concept of power is out of the scope of this study, it still needs to be acknowledged and it provides fertile ground for future research.

Sir Francis Bacon has formulated the famous quotation 'knowledge is power'. Indeed, knowledge in organisations can be used either for personal or team gains. It can also be argued that those who hold knowledge can exert power over other people in four different ways. Digeser (1992, see also Paloheimo & Wiberg 1997, 66-69) claims that these ways are: breaking the resistance, non-decision-making, alteration of the preferences and power becomes justified and a responsibility. Knowledge in business organisations, for example, can be used to exert power over subordinates or other teams. The issue of power in knowledge creation and sharing, however, has received very little attention and while it is not at the core of this study, its impact on the theoretical framework is still significant because knowledge seldom exists in a vacuum.

Thus, knowledge sharing should not be assumed to take place in a power or emotional vacuum but instead it occurs amidst complex social interaction in various contexts. Therefore, one of the reasons why individuals share knowledge with each other could be that it serves a greater purpose (e.g. individual promotion or an increase in project budget). In addition, knowledge sharing is also contextual and cultural, meaning that people all over the world utilise different strategies to convey knowledge - or information - from one person to another.

Bearing these limitations - or possibilities - in mind I now turn to discuss the chosen research methodology and methods. The decisions are justified by illustrating their functionality in the actual research setting of this study.

3 RESEARCH METHODOLOGY

The purpose of this chapter is to present and justify the chosen research methodology and methods, which are aimed at yielding research data from the target organisation by looking at it through the lenses of the semiotic theory of the knowledge-creating firm. Hermeneutics was chosen as the appropriate methodology because its emphasis is on understanding rather than explanation (De Geer, Borglund & Frostenson 2004; Gadamer 2004; Noorderhaven 2004). The chapter begins with a discussion on research context after which the chosen research methodology – hermeneutics – will be presented. Next, the limitations and possibilities of the semi structured and focus group interviews will be addressed. Before conclusion, the research schedule and data collection are revealed to provide the reader with detailed information on the actual research process. Finally, limitations posed by the chosen methodology and methods are discussed.

This study is of qualitative nature because the nature of Nonaka and his associates' (Nonaka 1994; Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2005) work cannot be operationalised to produce quantitative results. Analysing the different characteristics of *ba* (Nonaka & Konno 1998; Nonaka et al. 2000), for example, would not be possible by using only surveys or questionnaires. In addition, this study attempts to shed light on knowledge creation and sharing in a single case study setting (Yin 2003a; Yin 2003b).

Before going any further in discussing methodological considerations, the concept of context should first be addressed. The definition of context has been under discussion during the recent years but scholars have, to some extent, agreed that it refers to the surroundings associated with the research area (Cappelli & Sherer 1991; Rousseau & Fried 2001). However, context does not remain intact or unchanged when the researcher enters it. Through semi structured interviews, for example, the researcher guides the process of context construction, thus allowing respondents to reflect on issues they

might not otherwise had dealt with. Bearing these notions in mind, the concept of context is now addressed.

3.1 The Meaning of Context in Studying Knowledge Communication

If contexts are taken into consideration, it is suggested that the researcher adopts the social constructivist approach which implies that social entities and phenomena and their meanings are continuously constructed in human interaction (Berger & Luckmann 2002; Bryman & Bell 2003, 20). In this study, knowledge is seen to be shaped, created and shared through human interaction, which leads us to assume that knowledge does not exist without individual effort because knowing is a prerequisite for any form of knowledge. Therefore, the suggestion above is legitimate because regarding knowledge as separate from human existence would imply knowledge has a will of its own. For example, the respondents often mentioned that the easiest way to share knowledge was in face-to-face situations where feedback was instant. According to Berger & Luckmann (2002), this is an example of meaning constructed through human interaction. Moreover, since feelings and feedback are hard to operationalise or attribute, regarding knowledge sharing and communication as socially constructed interaction is relevant. However, like knowledge and culture, contexts are intangible and as such, artificial constructions aimed at understanding social phenomena in a given research setting. In this study, for example, the respondents were not aware of any contexts because they were visualised by the researcher to better understand what is going on in the research setting. On the other hand, organisational culture (or context) was often brought up during the interviews which lead us to suggest that people create artificial constructions to organise their environment.

Rousseau & Fried (2001 in Marschan-Piekkari et al. 2004, 259) propose that researchers should provide their audiences with as detailed description as possible of the context under study. This not only helps readers to grasp the most essential issues and thus make sense of it, but it also paves way for further research. Describing contexts in detail can, however, be problematic as they are defined as ‘the surroundings associated with

phenomena which help to illustrate that phenomena' (Cappelli & Sherer 1991, 56 in Marschan-Piekkari et al. 2004, 245). Given that Cappelli & Sherer (1991) do not give any strict rules on narrowing down the contexts, how does the researcher know what to include to the context and what to exclude? The following figure shows what, for example, was included in research context in this study.

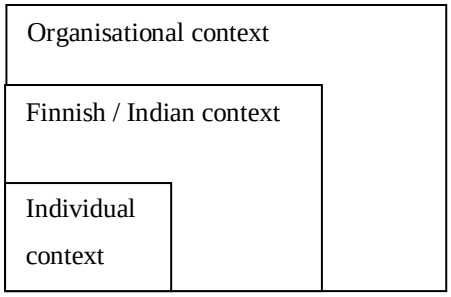

Figure 10. The three layers of the research context.

Figure 11 illustrates, which contexts were of relevance regarding this study. However, this setting is not to be taken as normative or static: other contextual decisions will yield equally important findings. But, since this study is about trust and different knowledge sharing and communication patterns, differences need to be contrasted in order to unearth valid findings. Thus, the Finnish and Indian contexts are separated to illustrate that there are differences in how work gets done under one MNC. For example, the respondents acknowledged the same phenomenon of different working patterns by stating that even daily routines get handled differently between Indian and Finnish team members. Therefore, it is justified to analyse both Finnish and Indian ways of working so that the team members could become aware of both their and their colleagues' knowledge sharing practices. Apart from contrasting different contexts, how the organisational context is understood in this study and how it relates to Nonaka and his associates' work are equally important matters to be discussed.

Traditionally organisations have been defined as a group of two or more people with a common goal. Business organisations' objectives, on the other hand, often involve maximising the profit of their owners. Nonaka & Toyama (2005, 420), however, claim

that profits are not the only factor driving organisations. They continue that the *raison d'être*, the reason to exist, for Honda is 'to make a good car' (Nonaka & Toyama 2005, 420). This assumption redefines business organisations from profit-driven to existentialism-driven: in order to succeed and remain profitable, business organisations need a reason to evolve and exist. According to Schein (2004, 25-26), how organisations decide to confront their challenges can be analysed in three different levels: 1) artifacts, 2) espoused beliefs and values, and 3) underlying assumptions. Schein (ibid.) calls these the levels of culture. He uses the following definition to characterise organisational culture:

> *A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.* (Schein 2004, 17)

Schein (2004) adds that organisational culture seldom stays in one shape and thus it is always on the move. Nonaka & Toyama (2005) came to the similar conclusion when they analysed the relation between an organisation and its members. They argue (2003; 2005) that organisations should be seen as entities interacting with other organisations through dialogue. This means that the mental and physical boundaries of the organisation are constantly renegotiated and redefined in the ecosystem of knowledge (Nonaka & Toyama 2005, 430).

Outlining the research context is perhaps the most crucial part of the research because it operates as a basis for the following phases in the research process. Without sufficient description of the research context, the findings have no relevance. If, for example, knowledge is taken out of the context, it may lose its value (Nonaka & Takeuchi 1995). For example, customer-specific knowledge might be useless when dealing with other,

though similar, customers[7]. Similarly, most of the respondents in this study concluded that problem solving needs to be done as soon as possible because the customer expects it and the problem itself may alter if time passes. In this study respondents often regarded knowledge to be of high value only at a certain point in time. However, not all knowledge was considered to have an "only now" attribute since some knowledge could be carried out to other similar problems.

Cappelli & Sherer's (1991) definition of context do not restrict researchers in any way and their definition helps to see the connection between research context and findings, thus contexts in this study will be defined according to their work. The research context will be further elaborated in the chapter addressing the research setting. However, before going any further, it has to be pointed out that in addition to shedding light to the research setting, contexts also help readers in another way. To describe the research context in detail, the writer helps the reader to connect it with previous knowledge.

3.2 Knowledge Communication as Seen Through Hermeneutic Methodology

Hermeneutics as understanding and interpretation originates back to the Ancient Greece and to the Jewish tradition of interpreting Biblical texts (Gadamer 2004, vii). However, hermeneutics as a methodology rather than method is much younger and philosophers such as Martin Heidegger and Hans-Georg Gadamer are closely associated with it (Noorderhaven 2004, 88). The act of using hermeneutics as a relevant approach is justified by its emphasis on understanding and the challenge of distance presented by the international context (Noorderhaven 2004). Noorderhaven (2004) argues that qualitative research seldom aims at constructing universal truths. How, then, it is possible to try to explain something the researcher has little experience of? In this

[7] On the other hand, as Nonaka (2008) suggests, knowledge does not have an end or a beginning. Therefore knowledge is seldom usable in just one instance: it can change its form when moved to a different context, but nevertheless it is still connected to the previous context. In conclusion: what at first might seem like knowledge with a sole purpose, can actually turn out to be knowledge with infinite purposes.

prospect, hermeneutic approach in MNC contexts is useful, because the researcher attempts to understand the phenomena under study without trying to make or explain any causality between social phenomena. However, understanding should not be thought to be complete before explanation is possible. Thus, understanding and explanation should be seen as complementing each other.

According to Noorderhaven (2004), distance presents challenges in international business research and that is what distinguishes the discipline of international business from business discipline. On the other hand, actors in the field of international business experience distance because of political, geographical, cultural or linguistic factors but distance is also present when dealing with the interplay between the researcher and the object of study. Furthermore, since knowledge involves narratives, social interaction, belief (Nonaka 1994, 16) and artifacts (Kreiner 2002), hermeneutic approach will be utilised in this study to better understand how knowledge is shared and communicated between individuals (Gummesson 2000; Gadamer 2004; Noorderhaven 2004).

To illustrate how the hermeneutic circle functions in this study, consider the following example from the data collection. First, an initial interview with one of the team's top managers was conducted to gain an overview of what the situation currently looks like. The manager was responsible for managing both the Finnish and the Indian teams so therefore he was able to provide the researcher with comprehensive and in-depth information regarding the research setting. Second, bearing the issues the manager pointed out in mind, the researcher focused on relevant literature to construct connections between previous knowledge and what the manager had mentioned during the interview. These two steps, then, can be seen as preunderstanding which is followed by the main interviews with the Finnish and Indian respondents. After these interviews, the researcher has become familiarised with the research setting and he is able to make sense of the research phenomena. At this stage it needs to be pointed out that the shift from preunderstanding to understanding should not be regarded as a simple "if A then B" equation but rather as a complex process: the time it takes from preunderstanding to

understanding varies between researchers and objects of study and thus no universal schedule can be drawn.

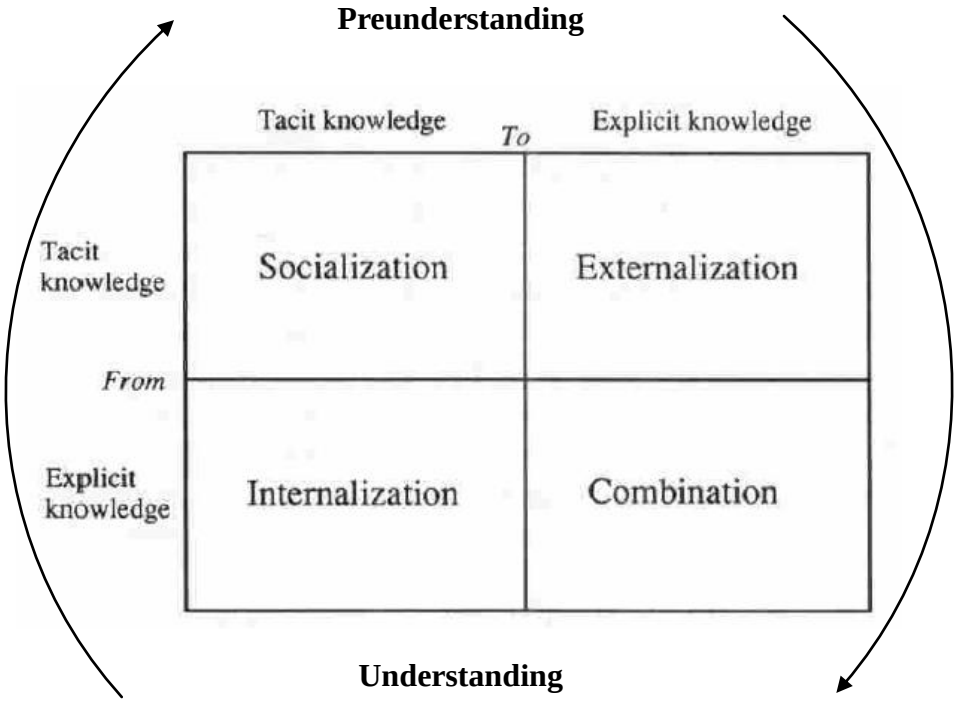

Figure 11. Modes of the knowledge creation (Nonaka 1994, 19) combined with the hermeneutic circle.

Apart from gaining better understanding, hermeneutic methodology is appropriate for understanding knowledge communication because of its similarities with the SECI model originally formulated by Nonaka & Takeuchi (1995). Both concepts involve an interplay between the inside (individual preunderstanding or tacit knowledge) and the outside (understanding and explicit knowledge through social interaction).

According to Gadamer (2004), hermeneutics is about understanding the whole from its component and vice versa. This hermeneutic rule forms the basis of the hermeneutic circle, which is a continuous dialogue between pre-understanding and understanding (De Geer et al. 2004, 326). Similarly, the knowledge-creating process known as the SECI model (Nonaka et al. 2000, 8) starts from the tacit dimension and ends there through the explicit dimension. Thus, individual knowledge or understanding tends to

increase during the shifts between preunderstanding and understanding, tacit and explicit. Both models require interplay between the whole and its components: tacit knowledge is useless if it is not converted to explicit (Nonaka & Takeuchi 1995; Nonaka et al. 2000) and similarly components alone are of no importance if they are not connected to the whole.

3.3 Research Methods

So far I have discussed the methodological issues of this study, but now I introduce the methods which were used to collect research data. Since the focus was on understanding how people make sense of their surroundings and which factors affect knowledge communication in multicultural project environments, semi structured interviews (Hirsjärvi & Hurme 2006, 47) were conducted to gain better control of the interview process, while one focus group interview was organised to promote open discussion between the participants (Morgan 1988 in Hartman 2004, 402).

According to Hirsjärvi & Hurme (2006, 43) interviews are categorised in numerous ways but in general they are categorised according to the question structure and interviewer control. Hirsjärvi & Hurme (2006) continue by presenting unstructured interview and survey interview as two extremes while semi structured (or theme interview, as they define it) interview is located in between. Semi structured interview is extremely flexible as it is situated between the qualitative and quantitative approaches (Hirsjärvi & Hurme 2006, 48). Additionally, using semi structured interviews in a mixed method research setting is highly fertile for two reasons. First, semi structured interviews can be easily altered to produce a survey thus making triangulation (Jick 1979; Creswell 2003) possible and second, because of their nature (Hirsjärvi & Hurme 2006, 48) semi structured interviews are situated between qualitative and quantitative approaches. Semi structured interviews can also be seen as kick-off observations (Mäkelä et al. 2007) which then would be followed by surveys on a larger scale (Jick 1979).

In addition to the semi structured interviews, one focus group interview was conducted in India. Hartman (2004, 403) states that in focus group interviews, the interviewer operates as a moderator who helps the interviewees to retrieve information and engage in open discussion. Moreover, focus group interviews make it possible for the participants to transcend their own boundaries through dialogue, which is well in line with the theoretical framework (Nonaka & Konno 1998).

Semi structured and focus group interviews, however, are not the only existing research methods as there are also other feasible methods to collect research data. Surveys, for example, are commonly used in knowledge management studies mainly because they are easy to distribute to a large group of people and the results are tailored accordingly to the research questions. However, as Nonaka & Toyama (2005) point out, knowledge has a subjective dimension which can be nearly difficult to operationalise. Surveys also limit respondents' answers by offering them alternatives, which only the researcher finds crucial. The semi structured and focus group interviews, on the other hand, enable the researcher to focus on the desired areas with minimal effort while allowing the respondents to answer the way they see fit. Next, interviewees and interview questions will be addressed.

To gain as comprehensive view as possible on my research questions in the target organisation's team, I interviewed employees from every hierarchical level to further expand the research context (Marschan-Piekkari et al. 2004). The decision to choose interviewees from every hierarchical level is justified by the notion that both teams and organisations are actually umbrella contexts (Marschan-Piekkari et al. 2004) for smaller, yet significant, contexts. Furthermore, selecting interviewees from every level of the team is a form of data triangulation which in turn increases research validity (Mäkelä et al. 2007, 6). Therefore, the decision to interview individuals from a team's every level serves two purposes. First, it promotes research validity (Mäkelä et al. 2007, 6; Rousseau & Fried 2001) and second, it serves as a platform for future studies on how knowledge is communicated and shared inside organisations (Anderson, Glassman, McAfee & Pinelli 2001; Bixler 2002; Burgess 2005).

The semi structured interviews were categorised into four themes according to the four distinct types of *ba* (Nonaka & Konno 1998; Nonaka et al. 2000). The interview categories were not revealed to interviewees because this would have made the interviewee's answers biased (Hirsjärvi & Hurme 2006). There were two reasons for categorising the interviews according to *ba*: first, categorisation helps the researcher to stay in control (Hirsjärvi & Hurme 2006) and second, by categorising according *ba* different knowledge sharing and communication strategies in different *ba*s will be better understood. Additionally, background information such as education and nationality of the interviewee were the fifth category.

3.4 Research Schedule and Data Collection

The purpose of this section is to illustrate how and when the data collection took place and how it fits with the overall research schedule. By discussing the research schedule I further attempt to describe the research context as much in detail as possible.

The actual interviews took place with Finnish respondents (n=6) in September 2008 and with Indian respondents (n=8) in January 2009. The researcher interviewed both the Finnish and the Indian respondents face to face. The interviews in Finland were carried out in Finnish and then translated to English by the researcher while the interviews with the Indian respondents were conducted in English. Initially the data collection from India was planned to be gathered through videoconference software but during discussions with the team's top manager, it was decided to conduct all the interviews face to face. This decision serves at least two purposes. First, since all the interviews were conducted in similar fashion, the findings obtained from them can be regarded as equal. Utilising videoconference software would also have been feasible but it would have put the respondents in unequal position because of possible technical challenges in the software. Second, from the hermeneutics' perspective, familiarising oneself with the research environment is as important as collecting the data itself. Thus, visiting

company's premises in both Finland and India was crucial because through videoconference software onsite observation would not have been possible.

The majority of the interviews took place in an isolated space to ensure the respondents could answer freely without any external pressures. The respondents answered openly to the interview questions and no major problems occurred during the interviews. The interview questions were identical in semi structured and focus group interviews. The interviews usually lasted between 30 to 90 minutes and they more or less followed the original interview structure (see Appendix 1).

However, as the researcher familiarised himself with the research phenomenon he was able to focus on areas the respondents considered important. For example, one of the respondents introduced the conception 'communication by accident' which means that knowledge is sometimes shared in *ad hoc* situations and this received further attention in the following interviews. Considering the hermeneutic circle, focusing on areas the respondents regard as important is logical. After gaining initial understanding of the research phenomenon, the researcher is able to go deeper by concentrating on issues arising from the interviews. Not only does this help the researcher to better understand the setting he/she is studying, but additionally it can also provide the respondents with relevant findings from their very own environment. Finally, the interviews were recorded with a voice recorder and after transcription they were sent to the respondents to be verified. Thus, hermeneutics comes into play here, as well: to strengthen the process of understanding, the respondents were shown the transcriptions in order to make sure the researcher had understood what the respondents wanted to say. In addition, the respondents' approval is also crucial from the ethical standpoint.

The next section concludes the methodology chapter by discussing what can we see through the hermeneutic methodology and what remains out of the scope.

3.5 Conclusion of the Research Methodology Chapter

This section concludes the methodology and method chapter by summarising what we are looking at through the chosen research methodology. In addition, what was left untouched is also discussed. Given that social interaction is complex and pure causalities are rare, it is relevant to summarise what we are able to see through the research methodology when analysing the knowledge communication practices in the Finnish-Indian team.

The issues this study does deal with are related to knowledge communication in multicultural project teams and especially, how trust increases (or whether mistrust decreases) it. Thus, the aim here is to shed light on knowledge sharing practices in MNC contexts. The results, on the other hand, should not be generalised although to some extent other organisations will find the findings and results useful. Apart from practical goals, this study will hopefully pave the way for further studies in the field of knowledge communication. In order to do this, the issues of repeatability and trust in interviews should be taken into account.

One of the problems related to social sciences is the concept of repeatability. Given that another researcher was given the exact interview question and literature used in this study, would he/she be able to conduct a completely identical study? Furthermore, the organisational setting would have also been altered which would make replication even more difficult. However, reliability in social sciences does not stem from repeatability because the reality is continuously constructed by individuals (Berger & Luckmann 2002), which nullifies the *ceteris paribus* assumption. Therefore, reliability comes from the researcher's ability to portray the research context as much in detail as possible (Marschan-Piekkari et al. 2004).

In addition to the repeatability issues, the issue of trust at the interview level should be addressed. Since the respondents were sent an email informing about the interview, can their answers be trusted, that is, would they adjust their answers to the overall corporate strategy in order not to raise any concerns at the top management level? The issue of

trust is present in every study involving interviews because the respondents, too, have their own agenda. Furthermore, does the researcher affect the interview setting in some way?

The next chapter deals with the research setting and its purpose is to give detailed information about the different contextual layers without violating the principle of anonymity.

4 RESEARCH SETTING

4.1 Introductory Considerations to Defining Research Settings

The aim of this section is to describe how and why the research setting was constructed to portray knowledge communication practices in the Finnish-Indian team. The research setting refers to the context which was discussed earlier in the research methodology chapter while the concept of context here describes the context where the research was conducted. Finally, both the company and the respondents were promised complete anonymity, implying that no exact information regarding the respondents' title, educational background, sex or age is given.

After the introduction to the research setting, this chapter moves on to discuss how the research context was framed in order to better understand how Finnish and Indian team members communicate knowledge with each other. Next, the organisational context is described and after that the Finnish and Indian contexts are introduced, followed by a presentation of the context from the individual's level. This helps to focus on the research questions and attempts to show the reader in what setting the research was conducted and where its findings matter the most. Before presenting the different contexts in detail, the decision behind them needs to be presented.

First, the organisational context forms the basis for other contexts and it can be seen as a framework for individuals committed to it. Even though the question of to what extent does the organisational framework affect individual's behaviour is out of scope of this research, I nevertheless claim that it provides certain boundaries through various social mechanisms, such as social pressure (Haveman 1992), which implies the organisation sets certain rules for its members to follow. Second, Finnish and Indian contexts were seen as the following contexts under the organisational umbrella. Here it is crucial that no connections between so called national cultures and national teams are made,

because the distinction here aims at showing different linguistic systems (Karppinen 2006) and a unique history in the organisation. Finally, the individual forms the third contextual level. Studies involving tacit knowledge, for example, have been traditionally more interested in individuals than organisations (Gourlay 2006, 61). However, as tacit and explicit knowledge are inseparable so are the individual and organisational dimensions (Nonaka 1994; Leonard & Sensiper 1998; Nonaka & Toyama 1998), and thus both are needed. Therefore, all of the three abovementioned contexts are needed to better understand the phenomena through the research questions.

4.2 The Components of the Research Context Outlined

The organisational context has been divided into three components - namely Finnish, Indian and individual contexts - to better portray the interplay between them. Not only does this help to demonstrate that the research context here involves various actors, but it also helps us to understand the relation between objective and subjective dimensions (Nonaka & Toyama 2005; Nonaka & Peltokorpi 2006) in knowledge creation. Although the theoretical distinction between subjective individual self and objective organisational or collective understanding is clear, in practice the distinction is extremely difficult to identify because it would be the same as to separate mind from body. The concept of wholeness, thus, is crucial in Nonaka's theory of knowledge creation and the distinction between subjective and objective is described only to allow detailed analysis. Therefore, the descriptions of subcontexts below exist only to better understand them, not to treat them as separate entities. Before presenting them, a brief outline of the research context is presented.

Because the target company operates in four geographical regions and in 30 countries, the Finnish and Indian contexts are presented next. Moreover, since the two teams were previously considered as separate, their different ways of doing things provide us with insights on how knowledge is created and shared in two distinct regions. In addition, both the Finnish and Indian teams are also scattered throughout various locations in Finland and India, so this further promotes the need to analyse both parties separately.

From the theoretical standpoint, situation, where the team is physically scattered in various locations, is a perfect example of *ba*s linked together (Nonaka et al. 2000, Nonaka & Toyama 2005). Thus, the decision to analyse Finland and India separately is legitimate because they are being analysed in terms of *ba* rather than as country based cultural units.

4.3 Organisation as an Umbrella Context

The target company is a large multinational IT consulting company with headquarters in Europe and operations in four continents and thirty countries. It has increased its presence in Scandinavia through various acquisitions and in Finland it has offices in five cities. It has divided its business operations under three services: consulting, outsourcing and technology. Whenever possible, their aim is to integrate team members from the Indian-based offshore sites to the local projects. However, previously the offshore team was seen as a separate from the team working with the client. This led the company to a client-provider relationship where the offshore team regarded the other teams as their clients. The company has decided to move away from this by integrating the Indian employees better to the projects, but because of this background, the offshoring needs to be further analysed to help better understand the research context.

At the end of 1990s, the target company decided to pursue competitive advantages through offshoring by establishing offshore sites in India, and today nearly one fifth of its total workforce is located in India. During the early stages of the offshoring strategy, the Indian employees were only seen as providers for the other teams that were working with the clients, but when competitors followed the suit, they had to pursue other competitive advantages. Therefore, the Indian-based employees were no longer considered solely as providers for the other countries, but instead they create mixed teams between Indian and other countries' teams. This has led to the current situation where, for example, there is a one Finnish-Indian team that shares some of the project resources but according to one of the respondents, the Indian colleagues do not feel they

belong to the new team. In fact, this was one of the reasons why this research project was undertaken. Next the Finnish and Indian contexts will be discussed.

4.4 Finnish and Indian Contexts

Before the transition phase, which occurred approximately one year ago, the teams were considered as two separate parts of the organisation. Moreover, since the Indian team previously was considered as a back office for the Finnish team, the Finnish team was considered to be one of India's clients. According to the respondents, there is still noticeable behaviour according to the pre-transition structure, although the teams are supposed to operate as a one, coherent team.

Given that the Finnish-Indian team has a longer history working through a client-provider relationship than as a unified team, it is relevant to analyse them as two distinct viewpoints. Had the teams been working together for a longer period of time, the decision to analyse them separately would not have been justified. However, right after the transition phase it is highly fertile to study, how the two teams differ from each other and how the different hierarchical levels contribute to these possible differences.

The decision to present research findings from two perspectives where relevant, is not uncommon, yet to some extent, contradictory to the concept of cultural identity (Collier & Thomas 1988; Jameson 2007). If we presume every individual has a unique composition of cultural identities, how can we justify the act to split the context in Finnish and Indian sides? There are two reasons for this: first, Karppinen (2006) analysed Finnish and Japanese knowledge creation structures and she presented her findings in a similar way and second, the team where the research took place was previously considered as two separate teams. It should be noted that the issue here is not to categorise teams according to such vague constructs as national culture or culture in general. Moreover, the emphasis is not on comparing Finnish and Indian team members but because of their history as two separate teams, at some points during the research findings it is useful to discuss Finnish and Indian views separately. We may, however,

presume that since the team has previously been regarded as two separate teams, there are also two different ways to meet the clients' expectations. Next, I will attempt to justify this decision based on previous literature.

Karppinen (2006) presents her findings from two perspectives when she studied Finnish and Japanese knowledge creation patterns. Furthermore, Karppinen (2006, 134) bases her assumptions on cultural differences partly on Nisbett's (2003) work when she claims that language, or the structure of it, explains why people create knowledge differently. She continues that writing system in Finland differs from that of Japan and this supports the idea that our thinking is shaped by how we write. This difference partly justifies the act to analyse and discuss Finnish and Indian knowledge sharing patterns independently, but as many studies claim (Eppler & Sukowski 2000; Mäkelä et al. 2007; King 2008), there is more to drivers behind knowledge sharing than different thought patterns. Knowledge sharing can occur differently between, for example, organisational units (Gupta & Govindarajan 2000) or different hierarchical levels (Mäkelä et al. 2007).

To conclude, this section has shed light on the research context and why it is important to take it into account. This, however, has its own pitfalls. There is a danger that the results will be based on national culture, which, according to the concept of cultural identity, is only part of the truth. Next I will move on to discuss and present the context from the respondent's level and how this helps to see the big picture.

4.5 Research Context from the Individual's Level

So far the research context has been discussed from the organisational level in section 4.3, but in order to gain a comprehensive view to the research setting, the context should be described also from the individual's point of view. The description of the individual context is carried out so that only general information concerning respondents' background is revealed in order to protect the anonymity.

Communication between the Finnish and Indian respondents was mainly carried out by using instant messaging, telephones, video conferencing or emails. However, whenever possible, the respondents wanted to communicate face to face, because it enabled people to give and receive feedback instantly. Moreover, important meetings and issues were documented for knowledge sharing purposes and because the team members wanted to confirm that everyone involved understood what was agreed during the meetings. All documentation was in English, even though before the transition phase some of the customer-related information was only in Finnish. This, in turn, created challenges for the Indian respondents since they were not familiar with the Finnish language. To solve this problem, their Finnish colleagues translated the documents whenever possible.

To further deepen the collaboration, some of the Indian respondents had been in Finland and vice versa to meet their colleagues and to carry out certain tasks which would have been unable to complete offsite. Some of the Finnish respondents, for example, had been in India to train their Indian colleagues and to provide them with customer-related information. Similarly some of the Indian team members had been in Finland mainly for knowledge transfer purposes.

The respondents from Finland were all Finnish and they possessed different work histories in the organisation. Some of them had been in the organisation for many years while some had joined much earlier. Interestingly, two similar career paths could not be identified. Moreover, educational backgrounds were somewhat different from each other, although most of the respondents had some technical background. However, this was not seen as a prerequisite for joining the organisation as some of the respondents had acquired the needed skills either through re-education or on-the-job learning.

In contrast to the Indian respondents, there were some similarities regarding background information but on average the Finnish team members had longer work histories in the organisation. This, however, is natural because the company has been operating much longer in Finland than in India. Nevertheless, all of the Indian respondents held at least an undergraduate degree from an engineering-related field. Additionally, most of the

Indian respondents pointed out that the organisation provided them with extensive on-the-job training and learning through various workshops and training sessions. Furthermore, if a team member possessed specific technical knowledge (i.e knowledge of certain software, for example), he/she was encouraged to share that knowledge within the team and also with other teams in formal training sessions. Thus, on-the-job learning was reported to be more active in India than in Finland.

In conclusion, the respondents from India and Finland possessed somewhat similar educational backgrounds, which, according to the respondents, made communication less challenging because the team members were familiar with the same areas. Thus, in some cases, common ground was not seen as dependent on nationality or language, but on technical knowledge. For example, some of the respondents who were working with the software code found it was sometimes challenging to talk with people who knew nothing about software programming or coding, even though they were utilising in their native language. Therefore, it can be said that the more complex knowledge the issue to be discussed required, the less communicational success was dependent on similarities in language or culture, even though a certain level of the shared language (i.e English) was required.

5 FINDINGS AND DISCUSSION

The aim of this chapter is to present the findings as they emerged from the interviews, which were based on the semiotic theory of the knowledge-creating firm presented in the second chapter. The findings are structured according to the research questions, although the main research question is addressed last. First, the impact of interpersonal similarity or dissimilarity on knowledge communication in an MNC context is discussed. Second, how trust shapes knowledge sharing and communication is addressed. Third, how *ba* is achieved and nurtured is analysed. Finally, the main question regarding Finns and Indians as knowledge communicators in geographically dispersed multicultural projects concludes this chapter.

5.1 How Does Interpersonal Similarity or Dissimilarity Affect Knowledge Communication?

One of the core assumptions of this study is that knowledge is shared between individuals, not organisation as such, and therefore studying which factors either make possible or hinder knowledge sharing is crucial. The aim here is to analyse the findings relevant to the first sub question: "How interpersonal similarity or dissimilarity affects knowledge communication?"

In their research data, Mäkelä et al. (2007, 8-10) identified three similarity factors, namely, similarity of national-cultural background, shared language and similarity of organisational status. Since their work on interpersonal similarity both in knowledge sharing and MNC context is seminal - and so far one of the few - I will analyse the findings from my research data partly according to their findings. In addition, they continue that "the fundamental question of who interacts with whom in the first place, has received much less attention in the literature. Though somewhat similar to their research context, the research setting of this study has two unique characteristics. First,

the team works towards the goals their clients have defined implying that social clustering (Mäkelä et al. 2007, 15) cannot always be seen as pervasive since the team members need to rely on certain people in the team, whether or not they get along well with them. Second, the team members engage in virtual collaboration which suggests that in some cases the team members only know the name and title of the other person they are working with. Although virtual collaboration can be somewhat less influenced by perceptions of other cultures (Beamer 1995), there is still a certain need for adjusting the message according to the recipient (Ballance 2006), if the sender knows or believes the receiver has a cultural background different to that of sender's.

During the interviews conducted in this research study, two of the issues identified by Mäkelä et al. (2007) stood out: similarity of national-cultural background and shared language. However, two notions should be addressed because the issues that arose in this study somewhat differ from the two suggested by Mäkelä et al. (2007). First, the respondents did not feel national culture *per se* proposed any problems but rather different cultural systems to produce and interpret meanings (Peirce 1931-1958; Karppinen 2006). Second, the operating language in the team is English but it is not uncommon for the team members to utilise their native language when communicating with people with the same native language. The team members opted to use a shared language (i.e. English), which would suggest that interpersonal similarity takes place (Mäkelä et al. 2007), in their daily work the respondents nevertheless stated that they sometimes experienced challenges related to communicating in foreign, yet shared, language. In her doctoral dissertation, Karppinen (2006) claims Finns and Japanese treat knowledge differently because of their differences in language systems. The findings from the interviews in this study seem to support this notion and quite interestingly shared language does not bring team members closer but instead the respondents tended to focus on differences in how the shared language was utilised. The following excerpts from the interviews illustrate how the respondents regarded their shared language:

> *My accent is not very pure accent of English. It is derived from Eastern side of India so it might be possible they* [Finnish colleagues] *also face problems while listening to me.* (Indian respondent 2)

> *We have a teleconference possibility, but it is easier to say things face to face because of the different accents.* (Finnish respondent 4)

> *Sometimes you can see misunderstandings taking place because no one in our team is using English as their native language*. (Finnish respondent 5)

The excerpts above give rise to the three following notions regarding the use of English in the team. First, the vocabulary and pronunciation between the Finnish and Indian team members differs to some extent. For example, some of the Finnish respondents commented they had experienced difficulties in understanding some of the words their Indian counterparts were using. According to the Finnish respondents, their Indian colleagues were using words such as 'lakh' and 'carrot' to portray certain numerals. Moreover, one of the Indian respondents pointed out that some words, such as 'status', are pronounced differently between Finnish and Indian team members. This was reported to sometimes cause misunderstandings and confusion as the team members focused only on odd words or different pronunciation rather than on the core message.

Second, as the respondents explicitly claimed, the different accents of English created miscommunication and misunderstanding between the team members. The team held many meetings by utilising videoconference tools and because of the technical challenges (such as inadequate sound and/or video quality) posed by the software the respondents felt that the English spoken by their counterparts in the team became less understandable. Even without the technology escalating the differences in accents the respondents had acknowledged the impact of accent in face to face conversations, as well. However, accent was not seen as an ultimate barrier for effective communication because the respondents had developed certain tactics to overcome differing ways in

regards to speak English. Similarly Charles & Piekkari (2002) studied the use of English at a Finnish MNC and they suggest that the problems arising from using different Englishes can be mitigated by letting people engage with each other in different communicational situations by using various communication channels. In this case, for example, the respondents tended to speak in a way the other party could follow easily and to take minutes of the meetings to provide the participants with a tool to double check everything that was said and agreed upon during the meeting. Moreover, the respondents also used emails to make sure the other party understood his/her arguments and key issues.

Third, the different meaning systems were also seen as a challenge in conveying the message to the other party. For instance, two of the Finnish respondents stated the following:

> *My Indian colleagues have the habit of saying 'yes, we can do it on time' and as a Finnish I take it for granted but still I need to ask on daily basis how they are doing.* (Finnish respondent 5)

> *When you ask for something to be done, you cannot ask did the other person understand it because the answer is always yes. Therefore, I ask my Indian colleagues to have their opinion on the matter because I want to know how they understand it.* (Finnish respondent 6)

As the two following statements show, instead of looking at things from their own perspective, the respondents attempted to transcend their own cultural boundaries (Jameson 2007) to try to see the matter from the other person's point of view, as well. In addition, the Finnish respondents were almost unanimous in identifying the concept of their Indian counterparts using "yes, I understand" as challenging. However, some of the Indian respondents commented that foreigners tend to think that every Indian says 'yes, I can do it' without actually meaning it. Nevertheless, the organisation has not provided its employees with strict communication procedures (although one of the

Finnish respondents mentioned that in some areas, such as SAP-related issues, strict procedures on how to handle problem reports were present) which leads us to suggest that the respondents had developed their own, unique strategies over time when they have been exposed to different cultures, thus mitigating the gap between what is perceived and what actually is (Beamer 1995).

When looking at the concept of interpersonal homophily (Mäkelä et al. 2007) and the respondents' answers presented above, it should be noted that interpersonal homophily is far from being static. Instead, just like the cultural identity (Jameson 2007), it changes over time but nonetheless the factors behind that shift are far from simple. Thus, interpersonal similarity is closely connected with cultural identity and their connection should be better understood to enhance knowledge sharing situations and practices in any given organisation. However, the respondents interviewed in this study emphasised the importance of trust in knowledge sharing (von Krogh 1998). Consider the following remark by one of the Finnish respondents, for example:

> *I suppose trust is a prerequisite in organisations based on the expertise of its employees. We have to trust each others' knowledge and skills when it comes to getting things done…Trust is also about keeping promises and it is lost when you are not able to get things done.* (Finnish respondent 6)

Thus, trust is a crucial part of knowledge sharing and communication because in the target organisation, knowledge serves a greater purpose, meeting the requirements set by the client, that is. How trust (von Krogh 1998) affects knowledge communication is discussed in detail in the following section but at this point it is crucial to identify it's connection with cultural identity and interpersonal homophily. The following excerpt from one of the interviews with the Finnish team members reveals how trust is easier to achieve with people who one has something in common with:

> *When dealing with key people[8] I believe they would argue against the silliest orders but I am really afraid that my Indian colleagues will not question the orders even if they knew they were absurd…I see that trust is achieved and maintained through concrete actions and mutual respect. Being on the same technical level with the other party also partly constitutes to trust.* (Finnish respondent 1)

The Finnish respondent did not state that culture *per se* challenges or facilitates knowledge sharing but instead he referred to being on the same technical level makes communication easier although he did mention that in the beginning he felt some of the customs in the Indian office were somewhat unusual for him. During the interviews, being at the same technical level was also identified as a factor making communication easier and more fluent. This tends to suggest that, in regards to communication, having a sufficient knowledge of the issue at hand is more crucial than having something in common with the other party, even though both issues contribute towards successful communication and knowledge sharing.

To conclude, interpersonal homophily - or common ground - was seen as positively influencing knowledge communication and sharing. The more people spend time working together the better they get to know each other. Moreover, spending time together also promotes knowledge sharing on an *ad hoc* basis, which, as one of the respondents pointed out, is an excellent way to distribute knowledge in the team.

However, common ground was not an easy or straightforward process and especially language was identified as a possible source for challenges. Even though a team member possesses superior technical knowledge, it is worthless if the person cannot communicate it to others in English. Language, however, was not an ultimate obstacle and the respondents had developed strategies to achieve the common ground even

[8] Key people here was mentioned and defined by the interviewee. According to the respondent, there were several key people through which he conducted nearly all communication to the Indian colleagues. This was mainly because he felt he could handle things better with these key people.

though their language skills were not good. In other words: the more people spend time working together the better they get to know each other and develop ways overcome any obstacles preventing the creation of common ground.

5.1.1 Discussion

What makes people share knowledge and collaborate to create new knowledge in work places? Gupta and Govindarajan (2000) argue that knowledge sharing is made possible through making the organisational setting responsive towards knowledge transfer between the different units of the MNC. Wenger (1998; 2004), on the other hand, argues that communities of practice of different sizes enable people to share knowledge with each other. Approaching the issue from the individual's perspective, Mäkelä et al. (2007) claim that the more similar people are the higher the tendency for interaction and thus ultimately knowledge sharing. Similarly Nonaka & Takeuchi (1995) suggest that knowledge is shared and created between individuals and thus organisation's purpose is to serve as a suitable environment for knowledge to flourish.

Knowledge management and sharing especially in MNCs has received much attention during the past fifteen years. However, most of the literature is focused on seeing the big picture and formulating overall strategies, thus neglecting the individual perspective. Nonaka and his associates (Nonaka, Byosiere, Borucki & Konno 1994; Nonaka & Takeuchi 1995; Nonaka & Konno 1998; Nonaka & Toyama 2005; Nonaka 2008), on the other hand, have paved way for studies that focus on individuals and how individuals create new knowledge through social collaboration. Following the footsteps of Nonaka and his associates, this study has attempted to find out what is actually going on when people share knowledge with each other in MNC context. As the research data reveals, differences arising from different cultural backgrounds do affect knowledge sharing and creation through different meaning systems but additionally language was also seen as influencing knowledge sharing when people are utilising a lingua franca in their daily work (Louhiala-Salminen et al. 2005).

To better understand why and how language affects knowledge sharing especially in MNCs, where majority of the personnel utilise other languages than their native language on a daily basis, the concept of Business English Lingua Franca (BELF) (Louhiala-Salminen et al. 2005; Kankaanranta & Louhiala-Salminen 2007) should be discussed. According to Louhiala-Salminen et al. (2005, 403-404), BELF represents English "as a 'neutral' and shared communication code". They argue that BELF is neutral in the sense that no one can claim it as his/her native language and shared because it is used in the global business communication context. These assumptions lead us to the following question: if BELF has no native speakers, what is the meaning system behind BELF like? Louhiala-Salminen et al. (2005, 404) claim that speakers of BELF utilise their personal meaning systems thus making BELF a mixture of different meaning systems. The research data from this study supports this notion as the respondents reported that the Finnish and Indian team members utilised English (the corporate language) in different ways. Given that the team members used English differently, how does this help us to better understand interpersonal similarity in the MNC context?

Language and communication in general are crucial factors in interpersonal similarity because we express ourselves through language. Thus, without communication of any form similarity would be measured almost completely on physical attributes. Language is used to give meaning to both abstract and concrete things and at the same time we express our relation to other people through verbal and non-verbal communication. Therefore, we can say that language can bring us together or set us apart. Even though the team members use English, a shared language, (or BELF) in their daily communication at work, this does not instantly increase interpersonal homophily because of the different meaning systems behind team members' native languages. For example, the Finnish respondents found it difficult to interpret what their Indian colleagues meant when they were saying 'yes, I can do it' because sometimes they were not able to keep their promise. 'Yes' in Finnish language is usually taken for granted and as a promise that the person is able to carry out what he/she promised. Thus, the Finnish respondents tended to analyse 'yes' against their Finnish meaning system

which, as the research data reveals, often leads to misunderstanding in the global business environment. As a consequence, the Finnish respondents reacted strongly against broken promises and in worst cases this lead to disastrous drops in trust between certain Finnish and Indian team members.

5.2 How Does Trust Shape Knowledge Sharing and Communication?

According to the findings, trust in profit-driven organisations is usually considered to have instrumental value rather than being valuable alone. Trust alone does not exceed the client's expectations but when a high level of trust is present, people are able to rely on each other and thus deliver outstanding performance. Moreover, trust is usually taken for granted and people more often than not notice mistrust than trust. To make things more challenging, the research data here shows that individuals cannot always tell how other people express trust. Thus, it was more common to describe what trust is not. Additionally, the respondents had different conceptions on whether trust was already present when two people met for the first time, or would it require time and effort to build up. Three issues arising from the concept of trust were regarded as crucial and worth in-depth discussion: the definition of trust, how trust is expressed and its impact on knowledge sharing.

First, as previously noted, the respondents had different ways to define trust in working environments. Some defined it as a variable when it comes to delivering results to the customers while others saw it as an integral part of work in expert-based organisations. Von Krogh (1998, 137), for example, defined trust as a reciprocal action: trust is a two-way street which one cannot travel without the help of other people. This occurred in some of the respondents' answers when they mentioned that trust is about connecting with other team members. If one knows the other person only by their name and/or title, how is it possible to achieve trust? Thus, the less one knows about the other person, the more difficult it is to establish and enhance trust.

Second, whereas trust was somewhat challenging to define, how other people express trust was even harder to put into words. Beamer (1995, 145) suggests this may be a consequence of people having mental projections of other cultures. In other words, the less one knows about the other person's background the less means he/she has to interpret what the other person means. Beamer (1995, 145) continues that people tend to generate mental projections of other person's background to fill gaps in communication which means that people analyse other people through their own experiences and mental systems. Beamer's argument on mental projections can be seen to possess similarities with Peirce's sign (1931-1958; 1986). Therefore, what we interpret as signs of trust might not always rest on a solid foundation, if we leave them unquestioned. Thus, when some of the Finnish respondents stated they had experienced challenges in interpreting what their Indian colleagues actually meant with 'yes', it can be said that the Finnish respondents were making mental projections of their Indian colleagues' behaviour. For example, when contacting their Indian colleagues by email asking could they do a certain job in a given period of time, some of the Finnish respondents experienced difficulties in interpreting what 'yes, I can do it' actually meant. Continuing with this argument, trust between the Finnish and Indian team members is based on mental projections which may or may not have any real life relevance. Thus, there are two important issues related to trust in multinational organisations: communicating trust and recognising acts of expressing trust.

From the knowledge sharing perspective, there are two implications here. First, communicating trust paves way for open communication and a willingness to share and create knowledge through personal collaboration (Ichijo 2007, 88). Second, recognising trust operates as a feedback system and as such it allows individuals to transcend their boundaries through sharing of tacit knowledge (Nonaka & Konno 1998). However, as tacit knowledge is difficult to communicate (Nonaka & Takeuchi 1995; Leonard & Sensiper 1998, 113), relying solely on digital communication (e.g. emails, videoconference software and telephone calls) can make, as the respondents pointed out, sharing of tacit knowledge challenging, or sometimes even impossible.

Third, the impact of trust in knowledge sharing has two implications. On the one hand it tends to be a prerequisite for knowledge sharing but it alone does not suffice (von Krogh 1998, 148). On the other hand, since in business organisations trust usually is of instrumental value, it requires preceding factors in order to develop, implying that in business organisations people seldom engage in processes solely targeted for improving trust. Instead, trust usually develops as a by-product when people work together to meet the expectations of the customer. Moreover, like one of the respondents stated, being kind towards others helps but it does not suffice if there is no work-related substance present. Thus, trust again serves as a facilitator if the persons involved are working towards the same goal but it requires additional factors if knowledge creation is to take place.

Whereas trust as a concept was somewhat easy for the respondents to define and conceptualise either by saying what it is or is not, talking about how people express trust was much more difficult. One of the problems here is that without explicit dialogue on trust and how it is expressed, people can have only guesses and hunches regarding other people's strategies to express and communicate trust.

During the interviews, the interviewee asked the respondents how their Finnish and Indian colleagues communicate trust. From the Finnish respondents the researcher inquired how their Indian counterparts express trust and vice versa. Even though most of the respondents commented it is rather difficult to analyse it, the following statements show that there are several ways to try to conceptualise trust:

> *Trust is communicated through small issues…You notice people like to contact you when they need something done.* (Finnish respondent 1)

> *Trust depends on words.* (Indian respondent 2)

> *At least for me trust is about accepting failures other people make without any fighting or finger pointing.* (Indian respondent 4)

> *For me, being able to raise questions independently is an expression of trust.* (Finnish respondent 5)

Based on the research findings and the statements above, the following conclusion on the impact of trust in communicating knowledge can be drawn. In the organisation under focus on this study, trust is closely related to initiative and it forms the basis for effective communication of both work-related challenges and knowledge. One of the respondents, for example, emphasised the importance of 'communication by accident' when it comes to communicating and sharing knowledge. 'Communication by accident', then, cannot occur without a certain level of trust since individuals need to feel connected with other team members both emotionally and objective-wise. Von Krogh (1998, 137) similarly came to the same conclusion by stating "care also gives rise to active empathy, making it possible to assess and understand what the other person needs". Although the concept of 'communication by accident' seldom involves conscious acts of reflecting on what information the other person is lacking, the concept nevertheless fits von Krogh's argument. In fact, the same respondent who coined the term 'communication by accident' continued that people in their team too often forget to share knowledge with their colleagues. This gives rise to the assumption one of the other respondents pointed out:

> *You could describe this organisation to be more or less formed like a silo. What other units do is of no relevance for others. Trying to make sense of the whole becomes impossible.* (Finnish respondent 3)

What the respondent meant here is that people tend to focus on their own work, thus neglecting the connections they might have with other people. However, as the respondent justly pointed out, trying to make sense of what other units do and how this relates to his/her own job can be somewhat irrelevant because in the MNC context, trying to follow other teams is usually extremely challenging, or even impossible.

In conclusion, as the findings suggest, trust is difficult to communicate, both verbally and non-verbally, and it should not be taken as a single event, but instead as a continuous process. Trust can either increase or decrease and both the communicator and the recipient play a critical role here. On the one hand, the communicator needs to ensure the recipient understands him/her, while on the other hand the recipient needs to interpret the communicated messages as either increasing or decreasing trust. The recipient can then communicate his/her reply which, in turn, either increases or decreases trust. As previously mentioned, trust is a continuous process of sending and receiving communication of various kinds.

To sum up the findings, trust is an important factor when it comes to knowledge sharing, although there is no straight forward causal relation between them. Trust is a complex phenomenon and because of its various conceptualisations, it is also a challenging field to study. Nevertheless, the research data shows that trust in expert-based organisations is especially pivotal in project environments, where certain deadlines and requirements have to be met. Trust was reported to be a continuous process, which takes time to build up, and the respondents stated that most of the time it was difficult to pinpoint an actual expression of trust. However, delegation and empathy towards other team members, for example, were identified as expressions of trust.

Even though the relation between knowledge sharing and trust was far from straight forward, the findings lead to suggest that when no trust is present, knowledge sharing is extremely difficult. However, in environments where people do not trust each other, there can be also other challenges which were not studied during the course of this study. Nonetheless, trust was an integral part of knowledge sharing and as an interactive process; building trust also makes it possible for the team members to engage in bas.

5.2.1 Discussion

According to von Krogh (1998, 136), trust is an essential factor in sharing and communicating knowledge in organisations because it allows the individuals to see the big picture and to relate to other individuals in the organisation. Competitive atmosphere, imbalances in information sharing and selfish attitudes endanger the whole concept of sharing and communicating personal knowledge (von Krogh 1998, 136). Von Krogh (ibid.) continues that in order to regard knowledge sharing as worthwhile, the team members need to get involved with other people and their work. To understand this connection gives rise to trust since team members need to trust other people do their share considering the project as a whole.

Von Krogh (1998, 137) argues that in organisations trust tends to compensate for people not knowing everything about their colleagues. Even though an individual in an organisation might not know the skills his/her team members possess, he/she still has to trust they will get the work done. Moreover, trust can be seen as a dialogue which either advances or hinders the evolution of personal relationships in organisations (von Krogh 1998, 137).

Von Krogh (1998) discusses trust as a component of care. He (1998, 137) claims that care comes before trust, whereas the research findings here suggest that the process actually begins with trust. Care without any initial trust is, to some extent, impossible because care involves interest towards other people's work. Consider the following arguments put out by the respondents:

> *Trust is a prerequisite in expert organisations…Starting point is that you trust in other people's expertise and that you also trust in their willingness to hone their skills.* (Finnish respondent 6)

> *One has to remember that behind every email there's a person with a name and a face. With some people you get things done better and pretty soon you start to rely on these key people…Trust is achieved*

when you realise you have achieved a connection with the other person. (Finnish respondent 1)

Trust for me is defined as follows: either we deliver or we do not deliver. (Finnish respondent 3)

In my opinion, trust in work environment is achieved by saying things as they really are. (Finnish respondent 5)

According to these statements by the respondents, trust is actually an initial phase in work-related relations. Thus, before the relationship can evolve to the next level, a basic level of trust needs to be achieved. The respondents did not, however, conceptualise trust explicitly but rather they preferred to define it as an action towards meeting the goals set by the client. To be able to get involved with other people's work, to remove any imbalances in information sharing and to offer and to receive help do not occur without a certain amount of initial trust. Von Krogh (1998, 136), on the other hand, argues that willingness to do the aforementioned gives rise to care - and ultimately trust. There is a possibility that the organisational context has an impact on this: in expert-based organisations, where individuals' efforts are connected, it is unlikely care exists before trust.

To some extent, the respondents agreed on trust being a prerequisite in any information sharing but then again: if trust is of concern, it means that individuals care about each others' work. Consider this example: an individual in an expert-based organisation needs to trust his/her team members succeed in their work because it has an impact on his/her progress. However, trust here can be nurtured by helping each other out. Therefore, conceptualising care and trust as two separate entities does not help us to understand why some people show compassion and interest towards other people's work input. However, even though the respondents were able to come up with some dimensions of trust, how they were communicated to others was much more difficult to describe.

Whereas defining trust is crucial for collaboration of any kind, recognising how other people express trust becomes equally important. Especially in MNCs recognising how other people with different backgrounds communicate trust is crucial because without actual recognition expressions of trust lose their value. Beamer (1995) suggests people rely on mental projections when dealing with people with different backgrounds: the less we know about others the more we utilise projections to communicate with them.

The research data here tends to suggest that notion since the Finnish respondents stated they had difficulties in interpreting what the Indians meant by saying 'yes'. From Peirce's semiotics' point of view, misunderstandings related to 'yes' can be interpreted as failures in sign – object relation. Based on their meaning system, the Finnish respondents instantly connected 'yes' with a promise to do the things that were agreed, whereas their Indian colleagues assigned the sign 'yes' to mark object 'yes, I see what you mean'. Even though the respondents were utilising the same language, English, they had assigned the words to represent different objects (i.e. 'yes, I can do it' and 'yes, I see what you mean'). Thus, mistrust took place because the team members had misunderstood and created false projections of their colleagues' behaviour. Therefore, to provide a suitable environment for knowledge sharing, managers need to become aware of trust and how mental projections and misunderstandings can have an impact on it.

In conclusion, the research data gathered from the interviews shows three especially critical issues in regards to trust in business-driven organisations: the definition of trust, how trust is communicated and interpreted, and the impact of trust on knowledge sharing. When asked about how to define trust, the respondents stated that the little things and gestures count towards achieving trust. Trust, then, is not achieved instantly but it takes time to build and requires genuine effort from each and everyone involved. Moreover, trust, like knowledge management (Nonaka & Takeuchi 1995), cannot be initiated from the top management level, but instead the managers need to operate as

facilitators enabling suitable environment for both trust and knowledge creation to flourish.

Even though trust was seen as a prerequisite for knowledge sharing and communication, it alone, however, does not suffice. But on the other hand, knowledge sharing does not tend to occur when trust is not present. Additionally, some of the respondents claimed that in environments, where mistrust occurs, knowledge and information sharing decline because the team members do not have incentives to provide their colleagues with knowledge or information.

Next I will move on to discuss the findings from the third research question's point of view. The third research question focused on understanding how the different stages of *ba* are achieved, maintained and nurtured in the project team under study.

5.3 How Are the Different Phases of *Ba*, Shared Contexts, Achieved, Maintained and Nurtured?

The research findings show how the different phases of *ba* were developed in the project team under investigation. As previous literature (Nonaka et al. 2000) and findings suggest, achieving, maintaining and nurturing *ba*s is by no means conscious at the employee level but instead the management should provide an environment receptive towards *ba*. The findings suggest that the team members engaged in activities promoting *ba* both in virtual environments and through face to face collaboration.

The research data has been analysed according to the four different characteristics of *ba* (originating, dialoguing, systemising and exercising *ba*) which were discussed in section 2.6.2. Here, the Finnish and Indian perspectives will not be analysed separately because they are part of the same team and thus they together form the *ba*s. However, even though the team can be regarded as one *ba*, other *ba*s might be present beneath it. Moreover, as Nonaka & Toyama (2003, 8) suggest, organisational *ba*s are complex configurations, connecting *ba*s those of numerous stakeholders (e.g. universities,

customers, suppliers and governments). The following figure illustrates how different *ba*s are connected to each other.

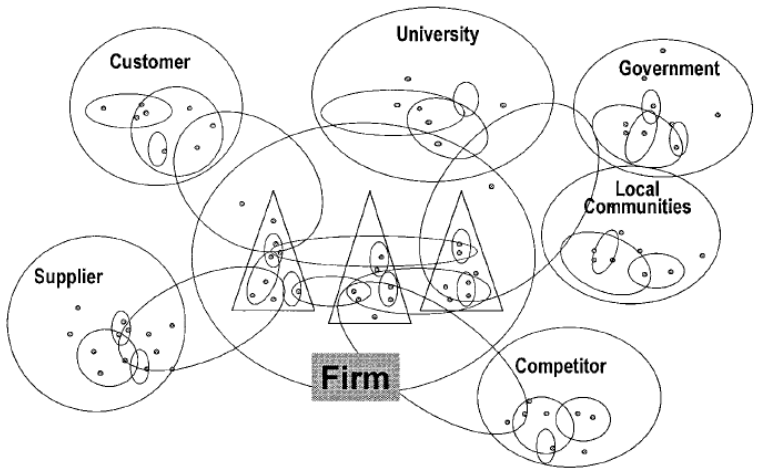

Figure 12. Organisation as organic configuration of *ba* (Nonaka & Toyama 2003, 8).

The figure shows that unlike the physical and legal boundaries of organisations, *ba* has no strict boundaries and as such, it can be formed in numerous ways. Joint ventures, university cooperation and lobbying are all considered as organisational boundaries transcending *ba*s. The research data from this study supports this notion since some of the team members were actually located in the customer's premises and thus they were in close communication with the customer's employees. Next I will turn to discuss how the four characteristics of *ba* are present in the team under study.

The first stage of *ba*, originating *ba*, is best characterised by the presence of emotions and empathy towards other people (Nonaka & Konno 1998, 46). As the initial stage of knowledge creation and sharing, trust and empathy are the driving forces in originating *ba*. Nonaka & Konno (1998, 46) continue that physical proximity and face to face contacts are essential in originating *ba* when people are sharing tacit knowledge. The findings here support this notion as the respondents claimed face to face communication allows instant feedback, which in turn promotes knowledge sharing and conversion. In addition, the respondents stated nearly unanimously that in order to achieve the expectations posed by the customer, face to face collaboration becomes extremely

crucial. Moreover, none of the respondents denied the crucial nature of face to face collaboration which leads to suggest that it cannot be bypassed in order to form an effective team.

> *Last fall around ten of our Indian colleagues came to Finland. We got to know each other and we worked together so we could better know the client's requirements.* (Finnish respondent 2)

> *Face to face [knowledge sharing] is the best way…we can expect questions from the new recruits, because normally when we explain we explain it in a large detail which cannot be documented* (Indian respondent 2)

> *With managers from the same hierarchical level we have weekly meetings where we share deep knowledge which is based on opinions and experiences. That kind of knowledge is easier to share verbally than through emails.* (Finnish respondent 5)

As the respondents' comments above illustrate, sharing knowledge in face to face situations becomes extremely important because of two things. First, in face to face communication feedback is easier to give and receive thus enhancing knowledge creation and sharing. Second, because of the nature of work, face to face collaboration is essential to get the job done since some parts of the work cannot be explained or discussed via emails.

However, whereas face to face communication and achieving personal contacts with other team members was seen as crucial when it comes to meeting the customer's requirements, one of the respondents stated that there are two challenging factors in the collaboration between Finnish and Indian units:

> *Sometimes I find it challenging to contact my Indian colleagues because of the lack of personal contacts…From India's perspective Finland is still regarded as an extremely small client, even though at the organisational level we have tried to tackle this by creating dedicated teams.* (Finnish respondent 3)

Even though the Finnish and Indian teams were merged during the transition phase approximately one year ago, it is still nevertheless evident that to certain degree Finnish projects from India's perspective are not always regarded as interesting as projects from other larger countries because of their relatively small size. This view, however, was not brought up by other respondents.

Dialoguing *ba*, the second stage, is more consciously constructed than originating *ba* and it involves reflection and analysis (Nonaka et al. 2000, 17). Conscious construction occurs through choosing the people with right skills to the team (Nonaka & Konno 1998, 47; Nonaka et al. 2000, 17). In dialoguing *ba*, individuals' tacit knowledge is converted into commonly understood and agreed terms and concepts (Nonaka et al. 2000, 17). Acronyms and nicknames are examples of commonly agreed terms. Moreover, face to face problem solving at work place is also a form of dialoguing *ba*: when the team members collaborate face to face to solve a certain problem (e.g. a problem in the client's software) they share the mental models of their peers and at the same time reflect on their own (Nonaka & Konno 1998, 47).

From the organisational perspective, there were several measures to enhance dialoguing *ba*. The team had introduced weekly meetings both at the managerial and operational level to share information, best practices and opinions. The problem here, however, was that these weekly meetings seldom involved both Finnish and Indian team members, but instead they had their separate meetings. Team's management, on the other hand, engaged in weekly telephone conference meetings where both Finnish and Indian managers participated in. One of the Finnish respondents reported that the weekly meetings between Finnish managers from different teams were especially useful

because during the meetings, the managers were able to share best practices and opinions on current matters which otherwise would have been difficult to share had the team not met face to face (Davenport, De Long & Beers 1998, 54). Additionally, the Indian respondents stated that during their weekly meetings team members were able to discuss their problems and propose suggestions for certain procedures. In fact, when engaging in knowledge sharing in dialoguing *ba*, having an environment that promotes open communication (Eppler 2007, 292; Takeuchi, Osono & Shimizu 2008) becomes especially crucial because only then people are able to present their tacit knowledge to others without fear of being put down.

To sum up, dialoguing *ba* is a space for the team members to actively engage in sharing their tacit knowledge with their colleagues (Nonaka & Konno 1998; Nonaka et al. 2000). Converting tacit knowledge to explicit, however, is dependent on at least two things. First, the individuals engaging in dialoguing *ba* need to trust each other for knowledge sharing to take place (von Krogh 1998). Second, closely related to trust, communication between individuals needs to be open and informal (Takeuchi et al. 2008). When these two factors are present, people are able to achieve and nurture dialoguing *ba*. As the research data reveals, the respondents found knowledge sharing in dialoguing *ba* environments easiest because they were able to give and receive feedback instantly to other parties. Being able to give and receive instant feedback was regarded as efficient in terms of communicating knowledge because the respondents claimed they were able to solve and discuss even highly complex problems in face to face situations.

Whereas knowledge sharing was reportedly easiest in dialoguing *ba*, systemising *ba*, however, was the most common space for creating and sharing knowledge. Systemising *ba* (Nonaka & Konno 1998, 47; Nonaka et al. 2000, 17) provides a context for combining new explicit knowledge with existing explicit knowledge. Collaboration in systemising *ba* is collective and virtual (Nonaka et al. 2000) and it is best characterised as efficient and effective. Nonaka et al. (ibid.) continue that newsletters and databanks are effective means to support systemising *ba*. The list could be extended with online communities, wikis and instant messengers. In fact, the team had launched a client-

specific wiki where everyone from the team could upload or edit information (Bock 1997, 323).

When individuals are collaborating and sharing knowledge online, what happens to the differences in communication patterns (Peltokorpi 2007). Ardichvili et al. (2006) argue that according to their findings, online collaboration tends to mitigate differences arising from cultural differences. While culture *per se* does not fade away or disappear[9] in online environments, due to the lack of non-verbal communication the recipients can focus solely on the text found on the team wiki. However, taking the other person's possibly different background into account, the respondents did not cease to reflect on their written style when dealing with emails and online-based written communication (Louhiala-Salminen et al. 2005). Especially the Finnish respondents were found to alter their online written language when dealing with their Indian colleagues for at least two reasons. First, the respondents wanted to reduce misunderstandings or correct possible misunderstandings in previous oral communication situations (e.g. meetings or phone conversations). Second, if the respondents wanted an answer to a question, they wanted to give the other person a chance to reply shortly. Interestingly, however, the Indian respondents did not pay as much attention to altering the language as their Finnish counterparts when communicating with them. Instead, they adjusted their language according to the other person's level of technical knowledge, for example.

> *[When dealing with my Indian colleagues] I use conditional and 'please' more often…Writing an email tends to be more challenging.*
> (Finnish respondent 1)

[9] Culture, or cultural dimensions (Hofstede 2002), as such is a socially constructed artifact and thus it can only be mitigated in the minds of the people involved in online collaboration. This study has adopted the view that culture is a visual nominalisation (Kampf 2008) implying that culture as a concept describes something that is observed as differences in meaning systems and behaviour between people with different backgrounds.

> *[I do not adjust my messages] according to his or her background as such, but on basis of their technical knowledge or functional knowledge.* (Indian respondent 5)

> *When dealing with facts and questions requiring 'yes' or 'no' answer, email is an excellent means of communication. It is impossible to shortly justify one's opinions in emails.* (Finnish respondent 6)

Thus, emails were considered as particularly efficient when it comes to asking short questions or distributing information to a large group of people. In addition, they also served as a backup system for ensuring everyone knew what was discussed in the preceding meeting. However, even in online collaboration, where the people might not ever meet the other team members involved, taking the other person's background into account was nonetheless important. The Finnish respondent 1 stated he consciously tried to get rid of "the directness that is stereotypical for Finnish people".

Even though online collaboration in systemising *ba* (Nonaka & Konno 1998, 47; Nonaka et al. 2000, 17) was regarded as a highly effective means to share knowledge and information, it still presented the respondents with many linguistic challenges. Still, quite interestingly online collaboration was seen as a backup system for face to face collaboration. Nonaka and his associates have not taken this phenomenon into account in their theoretical framework and therefore it requires further attention in studies to come.

The fourth and final stage, exercising *ba*, provides an environment for converting explicit knowledge to tacit through mentoring and training (Nonaka & Konno 1998, 47). Nonaka & Konno (1998, 47) continue by claiming that explicit knowledge is made tacit through routines and patterns but the research data gathered for this study gives rise to two notions. First, problem solving (which is a form of knowledge conversion from explicit to tacit) was carried out by replicating previous solutions. Second, if no previous solutions exist, problem solving comes from either questioning the old habits

and patterns or combining the old skills in a new way. The following table illustrates the two possibilities for creating tacit knowledge from current habits and patterns (i.e. explicit knowledge):

Table 2. Two possibilities for creating tacit knowledge.

Knowledge base

Existing explicit knowledge A + existing explicit knowledge B →Tacit knowledge C

Or alternatively

Existing knowledge A	Existing knowledge B
→ Tacit knowledge A_{n+1}	→ Tacit knowledge B_{n+1}

A knowledge base can be understood as containing all the knowledge created in an organisation within the four different *ba*s (Nonaka & Konno 1998, 47). Of the two alternatives presented above, the first combines existing explicit knowledge in a completely new way whereas the second possibility creates new knowledge by questioning the existing explicit knowledge. It should be pointed out, however, that even though knowledge here is presented as units (A, B and so forth) it should not be treated as such in real life because knowledge does not exist as units but rather as a constant flow (Nonaka 2008). Thus, knowledge units here serve only as visual nominalisations (Kampf 2008) to portray complex relations and processes.

During the interviews with the respondents, the researcher identified both formal and informal mentoring as spaces for converting explicit knowledge to tacit. Furthermore, mentoring took place in three different levels:

- Organisational mentoring (e.g. 'consulting school' for new recruits)
- Team mentoring (team-specific information and knowledge)
- Mentoring on the go (usually *ad hoc* mentoring by more senior colleagues)

All of the levels presented above can be regarded as *ba*s which supports Nonaka & Toyama's (2003, 8) notion of organisations as organic configurations of *ba*. Moreover, not only did mentoring serve as means to provide the new recruits with relevant knowledge, it also helped to bring the Finnish and Indian team members closer together through face to face collaboration. The Indian respondents especially emphasised the importance of formal training and mentoring from the knowledge sharing and transfer perspective. Most of them even claimed that formal mentoring is effective when it comes to knowledge transfer because then people are most receptive towards knowledge.

In conclusion, achieving, maintaining and nurturing the different phases of *ba* required various strategies in the project team but nonetheless conscious efforts from individuals were regarded as highly effective. Face to face collaboration was also seen as crucial because then the team members were able to get to know each other. Especially Indian colleagues' visits to Finland and vice versa were regarded as necessary in gaining common ground. From the managerial perspective, on the other hand, the main task was to provide the team with as many possibilities to interact and collaborate as possible. Thus, *ba* requires conscious actions from the team members and facilitating actions from the management side.

5.3.1 Discussion

In the second sub question, the aim was to find out how the different stages of *ba* are achieved, maintained and nurtured in the project team. Nonaka & Konno (1998; Nonaka et al. 2000) have integrated the concept of *ba* ('place' or 'space' in English) to the theory of the knowledge-creating firm to provide it with more robust theoretical description of where knowledge is created. Nonaka & Toyama (2003, 6) continue by arguing that since knowledge is context-specific it is thus situational (Suchman 1987 in Nonaka & Toyama 2003, 6).

The main purpose for presenting the four characteristics of *ba* (Nonaka & Konno 1998, Nonaka et al. 2000) as separate dimensions was to better illustrate what kind of interaction is actually taking place under each one. In practice, however, the four characteristics overlap and due to their dynamic nature (Nonaka & Toyama 2003, 8; Nonaka 2008) they cannot be pinpointed in a certain period of time nor space.

In the third research question the focus was on how the different phases of *ba* are achieved, maintained and nurtured in the team under observation. It should be kept in mind that the respondents were not working towards nurturing dialoguing *ba per se*, for example, but instead they were interacting with each other in a way that enables dialoguing *ba* to flourish, which in turn promotes knowledge creation. Bearing this in mind, I will now turn to discuss how *ba*s were achieved, maintained and nurtured.

Ba is a place for enabling the creation and sharing of knowledge (Nonaka & Konno; Nonaka et al. 2000; Nonaka & Toyama 2005). Thus, *ba per se* does not create new knowledge but it serves as a trigger for creating and sharing knowledge. Moreover, for *ba* to flourish individuals need to express empathy towards each other and, to some extent, knowledge sharing needs to be a conscious act. In short, the research data reveals that the different stages of *ba* are achieved when two conditions are met. First, the organisational environment needs to be open towards creating and fostering *ba*s. Second, empathy and caring attitude between individuals ensures that the team members are able to communicate informally with each other. Thus, two forces, individual and organisational, are at play here and for knowledge sharing to take place, the organisation needs to become aware of both factors. However, the respondents implicitly pointed out that the individual factors are more important than the organisational ones. Managers can only create suitable environments for *ba*s (Nonaka & Konno 1998), but the employees are required to create the actual *ba*s. Therefore, reaching the informal level in communication and interpersonal relations were the most important issues in achieving *ba*s in the target team.

Whereas achieving *ba*s required mainly informality and managerial efforts, maintaining and nurturing *ba*s depended on numerous elements. Informality was important here, as well, but additionally the following factors worked towards maintaining and nurturing *ba*s: face to face collaboration, key people, feedback and trust. First, face to face collaboration was especially important when dealing with tacit knowledge and it also promotes virtual collaboration because when tacit is made explicit, it is easier to share to large amounts of people. Thus, tacit knowledge can be shared with everyone in the team when it is made explicit. The second factor was present in communication taking place between Finnish and Indian team members. Some of the respondents pointed out that they relied on certain key people when they wanted to distribute information or knowledge to their Finnish or Indian colleagues. For example, a Finnish team member contacts his/her key person in India who in turn shares the knowledge/information with his/her colleagues. Third, feedback was regarded as important from *ba*'s point of view because through feedback (i.e dialogue between argument and feedback) the team members are able to transcend their personal boundaries and reflect on other persons' thoughts and suggestions (Nonaka & Konno 1998). Finally, trust was found to be especially important for *ba*s to be maintained and nurtured. Even though in cases, where trust was not present, assignments were accomplished but knowledge sharing did not take place and hence the actual learning remained at extremely low level.

In regards to the different phases of *ba*, the respondents stated that the phases involving tacit knowledge were most difficult to deal with in virtual environments because tacit knowledge as such is difficult to articulate by only using words without any visual or non-verbal communication. Originating *ba*, where tacit knowledge is converted into explicit, involved knowledge of highest complexity and thus it was found to be easiest to share in close proximity. Solving problems together was seen as a perfect example of knowledge sharing in originating *ba*. In dialoguing *ba*, the team members engaged in weekly meetings, for example, to share their explicit knowledge with each other. Critique and feedback were seen as essential parts of dialoguing *ba*. Systemising *ba*, knowledge sharing in virtual environments, was, according to the respondents, the most effective way to share knowledge with colleagues who were not in the same premises.

Finally, in exercising *ba* explicit knowledge is converted to tacit through training and mentoring. For the conversion from explicit to tacit to succeed, individuals need to utilise knowledge "in real life applications" (Nonaka & Konno 1998, 47).

In conclusion, achieving and nurturing *ba*s is a complex process and they require conscious efforts to succeed. However, even though *ba*s require conscious acts, they cannot be forced upon people since in the end *ba*s are about individuals showing empathy towards each other. Moreover, *ba*s are not only about empathy but especially in profit-driven organisations individuals, who are involved in different *ba*s, expect functionalism from *ba*s. In other words, *ba*s need to serve as spaces where the team members can, for example, develop their competences or get a solution to the problem they are facing at that moment.

5.4 How Do Finns and Indians Communicate Knowledge and Negotiate Commonly Understood Meanings in Geographically Dispersed Multicultural Projects?

The findings from the main research question aim at synthesising the sub questions by analysing which factors contribute to effective knowledge sharing in the target team and how the Finnish and Indian team members communicate knowledge to each other. As the findings suggest, knowledge sharing was reported to be most difficult when people have nothing or little in common (i.e in Peirce's terms, the signs people assign to objects do not match). Thus, during the interviews, the following six Peircean objects came up as the most influential objects creating challenges in or possibilities for knowledge sharing.

- Language
- Interpersonal similarity
- Attitude towards knowledge sharing
- Organisational environment
- Trust

- Personal relationships

For example, if trust had different signs (i.e meanings or interpretations) for the team members, it was seen to cause misunderstandings, and ultimately also frictions and challenges. The relation between the abovementioned objects should not be taken as hierarchical, but it is possible that their intensity varies across different situations, thus showing signs of hierarchy.

First, language can be used to transmit meanings to other people and as such, it can create misunderstandings and misconceptions when the transmitted meanings are interpreted in unintended ways. For instance, when the team members were referring to the project specification document, it had different meanings for Finnish and Indian team members. For the former, the word 'project specification' meant something that was agreed upon and that could not be altered after it had been approved, whereas for the latter, it was regarded as a starting point from where the actual project specification negotiations started. The following statements by both Finnish and Indian respondents highlight issues, which were especially prone to create misinterpretations.

> *[Emails are] bad because directness varies across cultures and some things can be understood as jokes here, while as insults somewhere else.* (Finnish respondent 6)

> *When talking with my Indian colleagues in Communicator* (an instant messaging software) *we are speaking English which is not our native language. Then you can see misunderstandings taking place.* (Finnish respondent 5)

> *It is important to get enough background information, otherwise we discuss the same issue with different words.* (Indian respondent 3)

Furthermore, language can also objectify phenomena that previously have not been regarded as such. For example, the respondents had different Peircean signs to 'Finnish communication style'. For the Finnish team members, it meant using direct communication style, while their Indian colleagues regarded it as lacking information. Thus, language can serve as a vehicle to identify differing meanings but it can also objectify (and ultimately create signs to these new objects) entities that previously were not regarded as such.

In addition, even though the use of a shared language (in this case, English) does facilitate communication between the team members, it can also present new challenges if no one can claim it as his/her native language. From the research data, three challenges were identified, namely differences in vocabulary, different accent and/or pronunciation, and different meaning systems as derived from the native language and/or conflicting genres (e.g. the differences in how business analysts and software developers talk about problems and challenges). As already discussed in section 1.2, Indian English contains words (such as 'lakh' which stands for 100,000) which are unknown to other English speaking countries. Some of the Finnish respondents mentioned this during the interviews and they felt it was a bit surprising because that is something one does not learn in European schools. Both Indian and Finnish respondents reported that different accents and pronunciations were initially regarded as major challenges in terms of knowledge sharing and daily work. When the two teams were united, some of the Indian team members travelled to Finland for knowledge transfer purposes. They pointed out that their Finnish colleagues thought they were speaking too fast, which sometimes caused misunderstandings. The two challenges presented above are rather practical and concrete, but arguably the greatest challenges came from the team members' different meaning systems, which were derived from their native language meaning that the way the used English was shaped by their native language, and different genres, implying that the responsibilities and job descriptions affected how the team members used language to make sense of their surroundings. For example, one of the Indian respondents stated his Finnish colleague used to structure his communication first in Finnish and after that he translated it into English. Furthermore,

one of the Indian respondents pointed out that sometimes it was challenging to communicate with other team members who were involved with different aspects of the project. This was seen in the use of different jargon, for example, but also in what the team members regarded as problems. A wrong parameter in the software code was, for a software developer, a source of knowledge whereas for business analyst it was mainly of no importance.

Second, interpersonal similarity, as discussed in section 5.1., can have a positive impact on knowledge sharing but it is not limited only to national similarity. As the respondents pointed out, sharing a similar technical background, for example, tends to sometimes facilitate knowledge sharing more than sharing the same nationality. Nonetheless, sharing the same native language, for example, can bring people together in multicultural teams. Thus, national similarity and similar professional background were seen as sources for interpersonal similarity.

To some extent, interpersonal similarity arises from the organisational setting where people with similar responsibilities work together. The developers, for example, tended to communicate and work only with other developers. In such cases interpersonal similarity was seen to create barriers between different functions while facilitating collaboration inside functions. In fact, some of the respondents pointed out it was sometimes easier to communicate with other team members, who were of different nationality but who possessed similar professional background, than with colleagues, who were of same nationality but who were involved with other functions. Partly because of this, some of the respondents commented it was crucial for the success of the project to have people with both business and technical knowledge. Thus, as the findings suggest, interpersonal similarity manifested itself in two areas. Moreover, having a similar professional background was seen to facilitate knowledge sharing more than belonging to the same national context.

Third, from the research data, two notions in regards to attitude towards knowledge sharing were identified. On the one hand, top-down organised knowledge sharing

required receptive attitude towards knowledge, while on the other hand, bottom-up oriented knowledge sharing was mainly *ad hoc* and the person who requires the knowledge was expected to be able to contact other team members for help. Top-down organised knowledge sharing, such as formal training sessions, were regarded as useful if the team members were receptive towards gaining new knowledge. The respondents especially stressed the importance of dialogue during these sessions, which is in accordance with the externalisation phase of the SECI model (Nonaka et al. 2000, Nonaka & Toyama 2003). Bottom-up oriented knowledge sharing, on the other hand, occurred when the team members faced a problem during their work. In such cases, it was important that the team members could easily turn to their colleagues for help without fear of being put down. The bottom-up approach for knowledge sharing is closely connected with trust, which was discussed in section 5.2. In environments, where trust is present, people are able to freely turn to their colleagues for assistance. In fact, some of the respondents commented that taking the initiative and asking for help is a necessity because there was not always time for enough initial mentoring and guidance.

Fourth, for knowledge sharing to take place, the organisational environment was found to play a critical role. Elements such as blogs (both internal and external), wikis, weekly team meetings, databases, training sessions and bottom-up decision making and flat hierarchy were seen as enhancing knowledge sharing. The purpose of all of the aforementioned elements was to make it possible for the team members to share knowledge with each other and with other teams, as well. As one of the respondents reported, blogs are one of the easiest methods to share specific technical knowledge with the community. Blogs, then, are concrete examples of organisations as organic configurations of *ba* (Nonaka & Toyama 2003), since especially external blogs consist of users from various companies. Wikis and databases, on the other hand, were regarded as useful because sometimes the team members could be so busy that they were not able to help their team members out.

Weekly team meetings, flat hierarchy and bottom-up decision making were all regarded as facilitating knowledge sharing. However, all of the decisions were not made by following the bottom-up approach, but especially in *ad hoc* situations, where the team was facing a certain challenge or problem, it was reported to be highly effective. Moreover, bottom-up decision making took place quite often during the weekly team meetings where the team members asked their colleagues' opinions on certain matters. Both the Indian and Finnish respondents claimed it was easy to do decisions collectively partly because of the flat organisational hierarchy. In addition, training sessions were also seen to promote knowledge sharing especially when new recruits were introduced to the project.

In short, the organisational environment played a critical role in facilitating knowledge sharing and communication in the team. On the one hand, the organisation provided its employees with tools to share knowledge with each other, and on the other hand, the top management empowered its employees to do certain decisions in order to utilise their knowledge.

Fifth, trust, as already discussed in section 5.2, is a necessity if knowledge sharing in organisations is to take place. Especially in expert-based organisations, where the inputs come from the employees' skills and capabilities, trust becomes pivotal, because without it the team members reported communication and collaboration to be extremely challenging. For example, if a team member had to delegate a task to one of his/her colleagues, he/she did not turn to people who he/she did not trust. Sometimes, however, the team members cannot choose who to work with, thus frictions in trust were seriously influencing the team performance. Especially in the initial phase of the Finnish-Indian collaboration, the respondents claimed it was somewhat difficult to trust their new colleagues because they did not know their actual capabilities. Furthermore, the respondents could have had different conceptions of what trust looks like during the initial contact between two people. Nonetheless, trust was reported to build up as people succeeded in their tasks and through this the team members became closer, both professionally and personally.

Finally, personal relationships were also identified as facilitating knowledge sharing. However, personal relationships have their own pitfalls, as well, because they can form unwanted cliques within the team. Still, when the team members reached a more personal level in their relationship with their colleagues, communication was reported to be more informal and thus it was easier to contact other people. However, sometimes the communication between Finnish and Indian team members was rather strict and planned because of the time zone difference and the fact that the meetings itself were somewhat formal. The respondents, who engaged in such formal meetings, claimed it was challenging to discuss all the issues under strict time limits and thus 'communication by accident' (as discussed in section 5.2) received less attention.

Even though the semiotic theory of the knowledge-creating firm helps us to see what people actually regard as knowledge and how they talk about it, the pragmatic goal is not to produce homogenous environments. To some extent, heterogeneous environments can be seen as ideal spaces for creating new knowledge. Moreover, as an underlying assumption of this thesis, culture and meaning systems should be seen as problem solving tools, not as barriers for any kind of collaboration.

In conclusion, facilitating knowledge sharing was found to be a challenging task because mostly it cannot be managed as such, but instead the environment can be manipulated to welcome knowledge sharing between the employees. Having a suitable environment, however, was not enough as communicating knowledge is mostly about individual commitment. If the team members have no incentive to engage in knowledge sharing, the organisational environment can do little or nothing to make it happen. Thus, all of the six aforementioned components were identified as pivotal when facilitating knowledge sharing in the team.

5.4.1 Discussion

The purpose of the main research question was to study how knowledge is communicated and how commonly understood meanings are negotiated in a geographically dispersed multicultural team. The emphasis, however, was not to stress 'cultural differences' of any kind but to understand how the team members communicated and created knowledge and meaning. Hence, if any differences came up, the researcher attempted to understand them without making any causalities or explanations.

Based on the research data, knowledge communication and creation was based on the six objects, which were presented in section 5.4. These objects, however, should not be regarded as universally applicable, since every organisation is a complex combination of agendas, structures, actors and stakeholders. Moreover, identifying these six objects has similarities to formulating a knowledge management strategy for an organisation.

In their study, Bartczak, Turner and England (2008, 49) highlighted five barriers to developing a knowledge management strategy. Additionally, Bixler (2002) discusses the four pillars of knowledge management, namely leadership, organisation, technology and learning, which should be regarded as critical from the knowledge management strategy's perspective. These two examples describe two different approaches to formulating a knowledge management strategy and this study has introduced a third, somewhat different, approach. Representing three different cases these approaches legitimise the notion that knowledge management strategy should be based on organisation-specific components rather than on factors claimed to be universally applicable.

In addition to formulating a knowledge management strategy, the actual process of sharing and creating knowledge should be taken into account. Nonaka and his associates (1994; Nonaka & Takeuchi 1995; Nonaka & Konno 1998; Nonaka et al. 2000; Nonaka & Toyama 2005) have conducted extensive studies on how knowledge is shared and created in various teams. Furthermore, Nonaka & Toyama (2003; 2005) have discussed

how to organise knowledge management in organisation (i.e knowledge management strategy) but they have described it as the composition of knowledge-based firm. Their claim is that even though the components to create knowledge remain more or less the same across organisations, the emphasis between different components is organisation-specific.

Thus, two forces are at play when looking at knowledge sharing in organisations. On the one hand, the knowledge management strategy sets the agenda for knowledge management initiatives, while on the other hand the actual knowledge creation and communication processes describe how the actual strategy comes into fruition. Based on the research findings and previous literature, the interplay between knowledge management strategy and knowledge creation was found to be of essential nature in creating value and profit through shared and created knowledge.

6 CONCLUSIONS

The purpose of this chapter is to give a short overview on the study. First, the research summary is presented after which the main findings are presented. Next, the managerial implications shall be presented and finally limitations and suggestions for further research will be identified.

6.1 Research Summary

This study was undertaken in order to find out how knowledge is shared and communicated in a multicultural project team and what role does trust play in facilitating knowledge sharing. Even though the knowledge management literature is increasing at an astonishing speed, we still have little knowledge of how individuals actually communicate knowledge with each other. Thus, this study has attempted to extend our understanding regarding knowledge sharing and communication in MNCs.

The main research question *'How do Finns and Indians communicate knowledge and negotiate commonly understood meanings in geographically dispersed multicultural projects?'* focused on Peircean objects in regards to knowledge communication in multicultural projects. The main research question was followed by three sub questions, of which the first *'How interpersonal similarity or dissimilarity affects knowledge communication?'* focused on investigating whether interpersonal similarity explains knowledge flows in MNC contexts. The second sub question was *'How Does Trust Shape Knowledge Sharing and Communication?'*. Here, the purpose was to study to what extent trust – or mistrust – affects knowledge sharing and communication. In the third sub question, *'How the different phases of ba, shared contexts, are achieved, maintained and nurtured?'*, the researcher wanted to study the concept of *ba* and its relevance to knowledge sharing.

The literature review was divided into three sections: culture, knowledge management and theoretical framework. In this study, culture was not seen as a static attribute, but rather as a dynamic combination of factors contributing to individual's identity. Thus, culture should not be regarded as an actual phenomenon but as an artificial construct. The section focusing on the knowledge management literature, on the other hand, dealt with different conceptualisations and definitions of knowledge. Knowledge, like culture, is an artificial construct and as such it has been defined in myriad ways. The different definitions of knowledge were discussed in the literature review chapter and finally culture and knowledge management were synthesised.

The literature review chapter was concluded with the discussion of the theoretical framework. The organisational knowledge-creation theory was combined with Peirce's work on semiotics and Jameson's concept of cultural identity, thus presenting the semiotic theory of the knowledge-creating firm. Together, it was claimed during this study, these frameworks are able to portray the complex phenomenon of knowledge sharing and creation in MNCs.

Three contextual levels were considered as especially important from this study's point of view: organisational, Finnish and Indian, and individual level. Describing the context as much in detail as possible helps to provide the audience with making sense of the actual research and positioning it in the academic continuum. Therefore, extra effort was allocated to describing the setting in which the study took place.

The empirical data consisted of eleven semi structured interviews and one focus group interview conducted in the target company. The first half of the interviews were conducted with the Finnish respondents in various locations in Finland during September 2008 while the latter half of the research data was collected in Mumbai during January 2009 by interviewing the Indian respondents. The hermeneutic process of understanding was strengthened with an initial interview with one of the team's top managers. During the interview he pointed out possible areas of interests which were discussed during the actual research interviews.

6.2 Main Findings

The main findings as derived from the research questions are presented here after each research question.

How do Finns and Indians communicate knowledge and negotiate commonly understood meanings in geographically dispersed multicultural projects?

From the interviews and field notes collected by the researcher, a total of six objects - namely language, interpersonal similarity, attitude towards knowledge sharing, organisational environment, trust and personal relationships - were identified as contributing to knowledge sharing. First, language is used to make sense of the environment and to convey this knowledge to others. Second, interpersonal similarity takes time to develop but once achieved it promotes an environment where the team members are able to engage openly in discussions where knowledge is shared. Third, the team members should be receptive towards sharing knowledge with each other since no knowledge is shared without individual efforts. Fourth, the organisational environment needs to encourage knowledge sharing through virtual environments (such as wikis) and physical premises (e.g. areas where the team members can gather and discuss various issues), for example. Fifth, the team members need to trust that everyone in the team shares their knowledge openly and that they are able to manage their duties effectively or ask for help when they encounter challenges. Finally, knowledge sharing is also about personal relationships because knowledge is not always shared in planned formal occasions (e.g. training sessions). Thus, these objects were regarded as promoting knowledge sharing in the project team under study.

How does interpersonal similarity or dissimilarity affect knowledge communication?

According to the research findings, cultural differences as such were not seen as influencing knowledge communication between the team members. Instead they stated that differences arising from the different ways to use English were more influential. In addition, some of the respondents reported that the organisational culture tends to

mitigate differences arising from other dimensions of culture. In other words, a commonly adopted way helps in gaining common ground and thus ultimately interpersonal similarity. But common ground is not achieved only through actions by the top management. To gain common ground, individual effort and trust between individuals is required. Moreover, even though interpersonal similarity's importance on knowledge sharing cannot be neglected it is still almost an impossible field to manage consciously. People cannot be forced to interact with each other, and therefore the role of the management is to create an environment (virtual and physical) that promotes knowledge sharing and informal communication. In conclusion, interpersonal similarity - or common ground - in general affects knowledge communication positively while differences in using the common language can hinder knowledge communication.

How does trust shape knowledge sharing and communication?

In profit-driven organisations trust was seen to have mainly instrumental value, in other words: trust does not accomplish tasks but when a high level of trust is present, people are capable of engaging in effective collaboration in team environments. Thus, the research data reveals that trust was harder to describe and analyse than mistrust. It was easier for the respondents to identify when trust was not there than when it was. This may be due to the respondents' different definitions of trust.

In addition, three crucial issues regarding trust and knowledge sharing was identified: the definition of trust, how trust is communicated and interpreted, and the impact of trust on knowledge sharing. Though already covered in this study, each of the three fields requires further studies. To conclude, trust was seen as a prerequisite for knowledge sharing but alone it does not suffice. Trust, like interpersonal similarity, cannot be managed *per se* but with environmental and contextual decisions people can be made more receptive towards each other.

How are different phases of ba, shared contexts, achieved, maintained and nurtured?

The research data revealed that numerous factors contributed to energising the different phases of *ba*. For example, to maintain and nurture *ba*s, factors such as trust and feedback were seen as essential. Achieving *ba*s, on the other hand, did not require as many factors but nevertheless it required conscious efforts both from the managerial and operational level. Managers can create an environment suitable for *ba*s but it is up to the team members to create those *ba*s.

Regarding the four phases of *ba*, the research data showed a link between highly complex issues and face to face collaboration. Issues of high complexity were preferred to be solved face to face because the respondents stated it was difficult to explain them in emails or during a telephone conversation, for example. Knowledge sharing in virtual *ba*s, on the other hand, was seen as highly effective because the actual message containing the information would basically reach every team member at the same time.

6.3 Managerial Implications

The purpose here is to show how managers across MNCs can apply the findings from this study into practice. In addition, expanding our understanding on knowledge sharing, and especially Nonaka and his associates' theoretical framework, has been crucial during the course of this study. The greatest contribution this study has to offer to the academic community, however, was to combine the concept of cultural identity and semiotics with the theoretical framework, thus constructing the semiotic theory of the knowledge-creating firm. Hopefully this research study paves way for further studies where the three abovementioned frameworks are combined. From the managerial perspective, on the other hand, two implications were identified.

First, knowledge sharing is above all about personal involvement. Without inputs from the individual level, knowledge sharing or creation does not take place. When formulating knowledge management strategies the top management should consult and empower the operational level. Knowledge management strategy is not an end-product of a top-down approach but it should start either from the middle or bottom.

Second, the organisational environment should cater for knowledge sharing. In addition, knowledge sharing does not take place only within organisation's boundaries but instead it touches on suppliers, governments, clients, competitors, universities and so forth. Setting strict boundaries for knowledge sharing yields limited knowledge and in worst cases it can even have a negative effect on the overall performance. Thus, the top management should make sure that the organisational environment promotes knowledge sharing in various situations.

6.4 Limitations and Suggestions for Further Research

Knowledge sharing and communication in organisations has attracted growing interest from various disciplines. Even though the contribution towards understanding knowledge sharing has been remarkable, little is still known about the complex process of knowledge sharing between individuals. Additionally, the globalised environment has increased the interaction between people from various locations of the world which implies that communication between people with different backgrounds and meaning systems has become a reality. Thus, the conceptual framework presented two limitations in regards to this study.

First, since no universal definition of knowledge exists, the researcher was required to pay extra attention to the consistency of the data analysis. Second, culture has traditionally been a tricky concept. National and organisational cultures are perhaps the most troubling conceptualisations because, as this study has claimed, as such they should only be regarded as artificial constructs, visual nominalisations. In this study it was assumed that instead of characterising people based on national culture, each and every individual should be treated as having a unique cultural identity. Thus, studying knowledge and cultural identity in MNCs is challenging and the results should not be treated as generalised.

Moreover, since both the company and the respondents were promised complete anonymity the research results were at times challenging to discuss so that the actual persons behind the answers would remain anonymous. Thus, no information regarding the respondents' title, educational background, sex or age was given. This kind of information, however, has no relevance in regards to this study's validity. Even though confidentiality was sometimes challenging to take into account, it nonetheless made sure that the respondents were able to talk openly about the research topics.

Suggestions for future research stem from the interviews with the respondents and four interesting areas were identified. First, online collaboration has been increasing dramatically during the recent years but its full potential in knowledge sharing is yet uncovered. Therefore, it should be studied how knowledge (both tacit and explicit) could be shared in virtual environments. Second, the linkage between power and knowledge sharing has attracted little or no interest in knowledge management literature. This is somewhat surprising since some of the respondents claimed knowledge can be seen as a source of power. Third, Nonaka and his associates' theoretical framework should be further studied by mixing qualitative and quantitative methods. Even though it can be time consuming, it would still yield highly relevant results. Finally, communication patterns in knowledge sharing require further attention. Even though this study has touched upon communication patterns, a specific study focused on them should be undertaken.

Studying knowledge sharing in organisations is extremely interesting and fertile because it involves multiple disciplines. In conclusion, one of the academic aims of this study has been to show that different disciplines have much more in common than what meets the eye.

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APPENDICES

Appendix 1

Interview questions

A. Background

1. Interview place & date
2. Position
3. History in the organisation
4. Education
5. Native language
6. Current job description

B. Originating *ba*

7. What does trust mean to you?
8. What does culture mean to you?
9. What is communication for you?
10. What does business know-how mean to you? Can you give any examples?
11. How would you describe informal communication in your organisation?
12. When communicating with others, have you experienced miscommunication? In what situations? Can you say why?
13. Who are the most important people to you in terms of business know-how?
14. Does your organisation provide you with any social activities, formal training etc.? What are they like?
15. How easy it is for you to get in touch with other team members? Could you tell me about possible difficulties?
16. Who do you turn to when you need information? Why her/him?
17. How do you show you trust someone?
18. How do you think Finns/Indians express trust? Could you give me an example?
19. In your opinion, how is trust achieved and maintained here?

C. Dialoguing *ba*

20. Could you describe the way decisions are typically made in this organisation?
21. When communicating with others, have you experienced challenges due to differences in language and culture? Could you describe me a situation like this?
22. Have you been contacted by someone because of your know-how? Can you give any examples?
23. When do you find knowledge sharing easiest?
24. In what kind of situations do you most often share knowledge?

D. Systemising *ba*

25. Could you describe me a situation where your know-how was helpful to others or vice-versa?
26. When thinking about business know-how, would you prefer intranets and databases or face-to-face communication? Why? What about your organisation in general?
27. How often do you search information from your organisation's databases, networks, newsletters etc.? In what kind of situations?
28. How do you contact your team members? (email, MSN, Skype, face to face etc…)
29. Does your organisation have a formal knowledge management strategy? How is it like?
30. In terms of knowledge sharing, which ones are more effective: formal or informal occasions? Why?

E. Exercising *ba*

31. How were you trained to become a member of your team?
32. How many of your colleagues in this project you know by name?
33. When you reply to someone, do you adjust your message according to the other party?
34. Do you ever turn to your senior colleagues for advice or information? If, in what kind of situations?
35. Could you tell me about any cultural stereotypes you've heard/encountered? Are they valid?
36. Could you describe me a situation where you think you were misunderstood by your Finnish/ Indian colleague?