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THE BARRIERS OF KNOWLEDGE SHARING IN MULTICULTURAL ORGANIZATION

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Management
04 15
In today’s global business environment multiculturalism is a daily factor in multinational companies (MNCs). Global MNCs tend to be geographically dispersed, which challenges the communication and interactions between individuals. The multicultural setting contains organization members from different cultural backgrounds, which challenges the organizational culture. The cultural diversity challenges in MNCs are not diminishing in the future. Instead, the effects of global business environment thrive the organization’s to manage multicultural workforce and utilize the values, which cultural diversity offers.

Purpose of this research is to acknowledge the critical knowledge sharing (KS) barriers in multicultural setting between individuals. Reflect these barriers to cultural diversity challenges and acknowledge the factors, which may help to overcome or even prevent the barriers from occurring.

The research method is systemic literature review and the empirical framework is analyzed based on other previous empirical resources made in relevant field of study. The data collection process contained several phases, journal search, determining keywords and applying computer-assisted searches, practical and methodological screenings and reference crosschecking. The analysis of the state of KS barriers in multicultural setting is done from 52 selected articles published between 1996 and 2015.

The main barriers of KS between individuals are the diversities in national culture, language, function and geographical dispersion. These all reflect other significant barriers like communication challenges, lack of information technology support and especially homogeneous in-groups. Linguistic and national diversity affect the overall knowledge sharing behavior of the individual.

In order to overcome cultural diversities organization members need to understand and respect the cultural differences and make adjustments. Utilizing KM culture, which fosters multiculturalism, is a long and multidimensional process, which requires changes in organization members’ behaviors and attitudes. Organizations should pursue informal opportunities for individuals to interact with each other. Communities of Practice may act as networks, which allow members to securely interact and create a feeling of belonging and equality.
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1 INTRODUCTION

For the past few decades knowledge management (KM) has become increasingly crucial factor of the organizations overall competitive advantage (Kogut & Zander 1992, Davenport & Prusak 1998, Gupta & Govindarajan 2000a, Bhatt 2001, Bhagat, Kedia, Harveston & Triandis 2002). Globalization is a growing trend, where large companies such as multinational corporations (MNCs) are trying to keep up with the phase in dynamic and constantly changing business environment. Globalization forces MNCs to manage knowledge in various different levels as well as utilize diverse ways to create, share and apply it effectively. Globalization generates diversity to the organizations’ workforce by creating a multicultural setting of mixed nationalities, cultures and ethnic backgrounds.

MNCs’ global dispersion creates challenges to information exchanges between subsidiaries and their members. Seamless and synchronized functioning of information technology tools is evident in connecting individuals from different locations. Geographical dispersion is directly connected with lingual and national diversity, which may hinder the motivation to share knowledge. National diversity and MNCs’ multilingual environment have significant affect to the communication, understanding and interaction between the organization members. The challenge is to create a common organizational culture that nurtures and fosters knowledge sharing (KS) between individuals despite of differences in lingual and national background.

Organizations may ease the communication problems between culturally diverse individuals by using common corporate language in daily activities and especially in managing knowledge. Sometimes the shared language is not enough for effective knowledge sharing because individual may possess fluent lingual skills but the communication will lack certain national cultural nuances. Individualistic cultures see knowledge as source of power and tend to hoard it for personal gain. In proportion, collectivist cultures cherish strong relationships and common goals, which ease the knowledge flows between individuals.
Interpersonal similarity reflects different mix of diversities such as language, nationality, demography and functionality. Individuals form unintentionally homogenous groups based in these similarities in MNCs, which affect negatively to the knowledge flows outside of the in-group. In-groups lower the cross-cultural interactions and finally diminish the cultural richness shared inside organization. (Mäkelä et al. 2007.) Management should provide enough equal opportunities for sharing by emphasizing the meaning of Communities of Practice (CoPs) and Virtual CoPs (VCoPs) which may decrease the in-group forming.

To be able to share knowledge effectively organization needs to support employees’ motivation, trust and especially create a working environment that allows its members to share their individual knowledge (Bukowitz & Williams 1999: 167). Knowledge sharing barriers can be decreased but they are never solved entirely because of cultural differences (Finestone and Snyman 2005). Therefore it is crucial in global MNCs to adjust the knowledge management to fit various organizational cultures and overall company objectives in order to secure seamless knowledge sharing process between individuals (Riege 2005).

1.1 Research purpose, objectives and problem

The purpose of this research in a broader scale is to study organizational knowledge and its different types, knowledge creation and sharing processes in organizations as well as represent the main challenges of these processes. In more specific scale the purpose is to observe the critical knowledge sharing barriers, which would block the multicultural organization’s knowledge flows especially between individuals. It is significant to know, how global organizations may overcome or prevent these barriers occurring.

Several researches have examined knowledge flows in multinational organizations and especially between subsidiaries (Kogut & Zander 1992, Gupta & Govindarajan 2000, Lucas 2006, Mäkelä et al. 2012), virtual communities (Ardichvili et al. 2003, Ardichvili et al. 2006, Pinjani & Palvia 2013). Relatively few of the existing researches are focused KS only between individuals in MNC (Sandhu & Ching 2014, Haas & Cummings 2015). There are only few researches done specifically from
knowledge sharing barriers between individuals from different nationalities (Ford & Chan 2003, Lauring & Selmer 2011, Peltokorpi 2014).

This research aims to define the knowledge sharing barriers between individuals, which may occur in multicultural setting, where culture diversity as well as organizational culture represents a key role. MNCs operate in global business environment, which adds the challenges of geographical dispersion to knowledge sharing between individuals. It is also significant to define the main actions and implementations to prevent the knowledge sharing blocks occurring. The research is answering to previously defined objectives and to following research questions:

- What are the main barriers of knowledge sharing in multicultural setting between individuals, and how do these barriers combined with cultural diversity affect knowledge sharing between individuals? How to overcome these barriers?

1.2 Research method

The research problem was approached with the help of existing researches and theories. This research is implemented as systematic literature review and therefore no empirical data is personally collected. In this systematic literature review the empirical data from selected previous researches will be utilized.

The theoretical literature applied in the research is searched from different databases of University of Oulu. Books are searched from the Oula-database and selected primarily based on their academic value and reference without any publication year limitations. Academic journals, scientific articles and case studies are searched from essential article databases of economics, for example ProQuest ABI Inform, Emerald, Academic Search Premier (EBSCO), Science Direct and Scopus. In the selection of these journals the publication year is newer than 1990s. The key search terms are ‘knowledge’, ‘information’, ‘sharing’, ‘transfer’, ‘flow’, ‘barrier’, ‘stickness’, ‘challenge’, ‘multicultural’, ‘culture’, ‘diversity’, ‘nation’ and the combination of them. The systematic literature review method, data collection as well as analysis are shown further in research.
1.3 The structure of research

The structure of the research begins with theoretical part, which includes chapters from two to five. The second chapter deals with background of knowledge and gives a thorough understanding of the knowledge concept and its different types. In the third chapter the knowledge creation process is reviewed with the help of SECI-model, Ba and knowledge assets. Chapter four deals with knowledge sharing process and present factors affecting knowledge sharing, including nature of knowledge, motivation, interpersonal similarity, leadership, information technology and communication. Fifth chapter discusses multicultural environment by providing understanding of national and organizational cultures and their key factors.

In the sixth chapter the research methodology is explained and illustrated. Research methodology chapter includes the discussion of the actual research method, data collection and analysis. The chosen articles for the analysis of the literature review are listed in the data collection chapter. Chapter seven deals with results and analysis of the literature review. Finally, in the eighth chapter the theoretical conclusions and contribution, managerial conclusions and further study suggestions are made.
2 BACKGROUND OF KNOWLEDGE

2.1 Data, information and knowledge

Before going any further, it is necessary to distinguish the difference between three concepts *data, information* and *knowledge*. The terms often cause confusion because depending from the context they resemble one another. Although they are related to each other, the terms do not share the same meaning. In order to succeed in business, the organizations need to know, which of them they already have and which they want. It is essential to be able to distinguish the terms and acknowledge how to get from one to another. (Davenport & Prusak 1998: 1.) Although according to Mäki (2008: 12), a clear distinction and clarification between the three concepts is unachievable. Mäki’s statement clearly reflects the literature because the more authors and researches, the more different perspectives on differences between terms.

Data can be described as discrete, objective observations or facts from different situations (O’Dell, Grayson & Essaides 1998: 4, Bhagat et al. 2002). In an organizational context data can best be described as systematical entries from different transactions. Hirschheim, Klein and Lyytinen (1995: 14) see data more as static affairs, which might have potential meaning to someone who can interpret them. Data by itself has little relevance or purpose for organization because it only produces facts from different transactions and does not provide a big picture of the organization’s success. (Davenport & Prusak 1998: 1–3.)

All organizations need data and some are highly depended on it like banks and insurance companies. Often the amount of the data itself does not add any value to the organization if the organization is not able to identify the data that is crucial for their operation or do not know how to utilize the collected data. The significance of the data stands out to organizations, when they want to transfer the gathered data into information because data is seen as the raw-material of information (Bhatt 2001). (Davenport & Prusak 1998: 2–3.)

A simple explication to information is that it is an organized set of data (Bhatt 2001). Information is like a message, which has both a sender and a receiver. The
information is usually in the form of document or either audible or visible communication, and therefore can shape the receiver. Unlike data information can be communicated and therefore possess more influential value. The purpose of interpreted information is to produce change in the receivers understanding about different issues and influence on his behavior and actions. Information has no value, unless it can be applied in use (O’Dell et al. 1998: 4, Grönroos 2006: 115). According to Boahene and Ditsa (2003) via Coakes (2003: 18), information is far more personal, variable, complex, and passing concept than data, which is why it is highly depended on the receiver’s experience and point of interests. (Davenport & Prusak 1998: 3–4.)

Davenport and Prusak (1998: 4), Boisot (1999: 12) and Grönroos (2006: 115) acknowledge that data is the base of information and information is crucial to exist before it can be transform into knowledge. Data requires value propositions in order to become information. Transforming data to information can be done various ways by adding value, see figure 1.

![Figure 1. Transforming data into information (Davenport & Prusak 1998: 4).](image)

If the data is contextualized, the meaning of the gathered data can be known and directed more easily to its rightful place. Categorizing data enables discovering the essential data units from the mass. Data can be transformed into information by analyzing it either mathematically or statistically. Organizations may correct data to
achieve more reliable and qualitative information. In addition, the summarizing of
the data helps to avoid processing the big amount of data as well as simplifies and
clears the overall gatherings. (Davenport & Prusak 1998: 4.)

If information is transformed into knowledge, the people need to do all the work by
with Davenport and Prusak’s (1998: 6) statement that knowledge needs added value
and meaning in order to exist and adds that without those knowledge would be either
information or data. According to O’Dell et al. (1998: 5), “knowledge is information
in action.” Previous definitions acknowledge the importance of information in
creation process of knowledge but it is depended on individuals’ actions. Rivero-Vazquez, Ortiz-Fournier and Flores (2009: 259) and McDermott (1999: 105) argue
that information can exist independently but knowledge is always attached to
presence of individual. Bhatt (2001: 69) defines the knowledge as an organized
combination of data integrated with set of rules, procedures and operations learnt
through previous experience and practice. There are few ways to add value to
information in order to achieve knowledge, which can be seen from the figure 2.

Figure 2. Transforming information into knowledge (Davenport & Prusak 1998: 6).

It is crucial to compare the information from different situations to each other to be
able to achieve a higher understanding of the overall situation. From the knowledge
point of view it is important to know, what consequences the information has on
decisions and actions. In addition, it is good to comprehend how information
connects to each other and therefore provide even more depth understanding. The creation of the knowledge happens between people and it requires conversations to able to achieve a deeper context and meaning. (Davenport & Prusak 1998: 6.)

Tuomi (1999: 7) argues that the hierarchy of data-information-knowledge should be turned other way round. Information emerges from knowledge and data emerges from information. This hierarchy is based on view that data cannot exist before someone has created it using his or her knowledge. Based on Tuomi’s argument Alavi and Leidner (2001: 109) posit that information transfers into knowledge once it is processed in the minds of individuals and in proportion, knowledge becomes information once it is articulated. Nissen (2002: 253) has presented a model with two hierarchies, which connects the more commonly known knowledge hierarchy (Davenport & Prusak 1998: 2–6, Boisot 1999: 12) and Tuomi’s (1999) argued converted hierarchy. Nissen states that the transferor of knowledge utilizes the knowledge hierarchy from the Tuomi’s concept whereas the receiver uses the opposite perspective.

2.2 The concept of knowledge

The studies of knowledge date back at least to Plato and Aristotle (Nonaka & Takeuchi 1995: 22). Modern-day exploration is credited to thinkers like Daniel Bell (1973), Peter Drucker (1990) and the philosopher Michael Polanyi (1962, 1966). Bell (1973: 175) defines knowledge as set of arranged claims of ideas or facts, which present justified assessment or experimental result, which is transmitted to others through some systematic form of communication. Another knowledge definition is made by Liebeskind (1996: 94), who states that knowledge is information which validity has been established through experiment of proof. (O’Dell et al. 1998: 3, Kalling & Styhre 2003: 57.)

In the literature there are various knowledge definitions and these tend to be complex and contain a lot of different elements. Davenport and Prusak (1998) have presented one of the most commonly known and used definition of knowledge.
As the definition indicates knowledge is a mixture of different components. Hayek (1945: 521) states knowledge is context-specific because it is depended on certain time and space. Nonaka and Toyama (2003: 6) agree on Hayek’s statement and add that knowledge creating process is also depended on relationships with others because without interactions no exchanges are made. According to Nonaka, Toyama and Konno (2000: 7), knowledge is dynamic in nature because it is created in social interactions amongst individuals and organizations.

Drucker’s (1990) definition indicates that individuals evolve a deeper understanding. Individuals utilize previous experiences and use “learn by doing” method in knowledge creation. Defining knowledge exactly is difficult based on its fuzzy and intangible nature but it is closely attached to individuals who possess it (Davenport et al. 1998). People interpret knowledge differently, for example what is knowledge for some, can be information for others. (Bhatt 2002.) A piece of information or knowledge can represent completely different meaning to different individuals, groups or organizations (Mäki 2008).

Knowledge is context-dependent and a residue of thinking. Individuals intend to interpret information or knowledge based on previous experiences. This explains why two different individuals cannot achieve the exactly same meaning from the same information or knowledge shared to them. (Thompson & Walsham 2004.) Knowledge is recreated in the present moment and it emerges to organization members’ minds only when a question or problem needs answers or solving. (McDermott 1999).
Nonaka and Takeuchi (1995: 58) have noted knowledge to be about beliefs and commitment as well as a function of a certain stance, perspective or meaning. In organization environment knowledge as a resource is contained within the minds of employees, where it can enhance the value of other capital and doesn’t diminish in value (Harris 2001). From the organization’s point of view value of knowledge increases the more members use knowledge and in proportion, diminishes if not used (Alavi & Leidner 2001).

Individuals transform and evolve the received knowledge to own subjective knowledge through past experiences and practices (Thompson and Walsham 2004). Knowledge exists in documents, databases, repositories and more importantly it is embedded in organization members and utilized through their behavior and experiences (Al-Alawi, Al-Marzooqi & Mohammed 2007). According to Cabrera and Cabrera (2002: 688), knowledge can be seen as “an intangible asset, which is unique, path dependent, causally ambiguous and hard to imitate and substitute”, and based on these characteristics the knowledge can be seen as one of the significant source of competitive advantage of the organization. In addition, knowledge continuously evolves as the organization and its members adapt influences and experiences from internal and external environment. (Rivera-Vazquez et al. 2009.)

2.3 The different types of knowledge

According to both Nonaka and Takeuchi (1995: 59) and De Long and Fahey (2000: 114), two dimensions are important in understanding knowledge in a practical, organizational context. In the first dimension knowledge exits in three different levels individual, group and organizational (De Long & Fahey 2000). In addition, Nonaka and Takeuchi (1995: 59) have acknowledged the inter-organizational level because of the process of expanding knowledge network, which crosses intra-organizational levels and boundaries. In the second dimension the knowledge is either tacit or explicit (Nonaka & Takeuchi 1995: 59, De Long & Fahey 2000). Boisot (1995: 145) has defined typology of knowledge, which relates to partition of tacit and explicit knowledge.
Choo (1998: 112) defines in addition to the tacit and explicit knowledge one more type of knowledge, which is referred as cultural knowledge. Cultural knowledge consists of the cognitive and affective structures, which are usually used by organizational members to perceive, explain, evaluate and construct reality. According to Choo (2006: 136), “cultural knowledge consists of shared assumptions and beliefs about an organization’s identity, goals, capabilities, customers and competitors.” Choo adds that these beliefs give a meaning and purpose to utilize organizational knowledge as well as create value to new knowledge.

2.3.1 Individual, group and organizational level

According to De Long and Fahey (2000: 114), there are at least three types of knowledge, which are human, social and structured. Human knowledge represents the individual’s knowhow and way of doing things. It is manifested from the individual’s skills, expertise and experiences. Human knowledge usually combines tacit and explicit knowledge through previous experiences. (De Long & Fahey 2000: 114.) Skiing and riding a bicycle are examples of human knowledge because once you have learned the knowledge that should come from the spine in future.

Social knowledge resides only in relationships between individuals or groups. Social knowledge is for example a team of research engineers who share certain common knowledge that is more valuable than the sum of the individual knowledge of the teams’ members. Social knowledge is primarily tacit in nature, which is shared by group members. Social knowledge may only be developed by group members who are collaborating with each other’s. (De Long & Fahey 2000: 114.)

Structured knowledge is explicit in nature and rule-based. In an organization it can be found in systems, processes, tools and routines. Structured knowledge differs from the previous two types of knowledge because it can exist independently. Structured knowledge does not need a human knower and it is an organizational resource. (De Long & Fahey 2000: 114.)
2.3.2 Explicit and tacit knowledge

Michael Polanyi (1966) made the original distinction between tacit and explicit knowledge. Tacit knowledge is personal and it is difficult to communicate and formalize. In proportion, explicit knowledge is easily codified and transmitted in formal and systematic language. (Boisot 1995: 145, Nonaka & Takeuchi 1995: 59.) Both tacit and explicit knowledge are valuable to the organization but tacit knowledge is far more difficult to capture and share because it resides within the individuals (Boisot 1995: 145, O’Dell et al. 1998: 3–4, Argote & Ingram 2000, Nonaka et al. 2000, Ford & Chan 2003, Ipe 2003, Hislop 2009: 23), which raises the dilemma of who knows what (Stenmark 2001). In MNCs, which have several employees, it is hard to keep track of everybody’s know-how.

Tacit knowledge it is derived from individual experiences and situation contexts and therefore raises challenges in articulating, exploiting and spreading information in organizations (Boisot 1995: 145, Choo 1998, Matusik & Hill 1998, Nonaka et al. 2000, Stenmark 2001). According to Tsoukas (2003: 410), tacit knowledge cannot be captured, converted or transferred because it can only be displayed and manifested in what we do. Grönroos (2006: 116–117) evolves Tsoukas definition by stating that tacit knowledge can be described as manual skills, problem solving skills or something that the person can do but is unable to write it down to paper or share it to others who would immediately adopt it.

Choo (1998: 111) defines tacit knowledge as “hard to verbalize because it is expressed through action based skills and cannot be reduced to rules and recipes”. In proportion, tacit knowledge is not easily recognized and therefore even its owner may not be aware of its existence (Stenmark 2001, Viitala 2005: 132). Invisibleness of tacit knowledge creates challenges to organizations and especially knowledge management specialists may find it tricky to capture it effectively. Boisot’s (1995: 145) typology defines tacit knowledge as uncodified and undiffused.

According to Nonaka, Toyama and Konno (2000: 20), tacit knowledge can be described as experiential knowledge assets, which are embedded into the organization in the long run. Tacit knowledge is a result of continuous interactions
between and among individuals both inside and outside the organization. Examples of the experiential knowledge assets are the skills and competences of the organization members’, which they have gained and accumulated through experiences at work. From the organizational point of view the experiential knowledge is difficult to manage, evaluate and trade; therefore it can be seen as critical competence. The experiential knowledge assets give a sustainable competitive advantage to the organization. In addition, routine knowledge assets are based on tacit knowledge which are embedded to the organization’s actions and practices in other words to the organizational culture. Examples of routine knowledge assets are the organizational culture, which effects to organization members’ day-to-day behaviors and activities. (Nonaka et al. 2000.)


The researchers have different opinions on whether tacit knowledge can be transferred into explicit (Nonaka & Takeuchi 1995, Nonaka & Konno 1998, Nonaka et al. 2000), or whether some of the tacit knowledge remains always tacit (Polanyi 1966, Wilson 2002, Tsoukas 2003). Wilson and Tsoukas both justify that the tacit knowledge cannot be converted into explicit knowledge. It has also been claimed that explicit knowledge could not exist without tacit knowledge (Welch & Welch 2008). Wilson considers implicit knowledge as an addition to tacit and explicit knowledge. Implicit knowledge may be expressed and it is something we take for granted in our actions. Implicit knowledge can be shared through common experience and culture. (Choo 2006: 137–138.)
Boisot (1995: 145) has classified four types of knowledge based on whether the knowledge is codified and whether it is readily diffused, see figure 3.

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</table>

*Figure 3. Typology of knowledge (Adapted from Boisot 1995: 146).*

Public knowledge is usually regarded as knowledge in society because it is structured, tested and recorded in written or audible form. When possessing the public knowledge, individuals are free to process and develop it as they please and see necessary. Personal, proprietary and commonsense knowledge are particularly relevant from the organization's internal viewpoint. Personal knowledge is based on personal experiences and for that reason is the basis of all organizational knowledge. Personal knowledge is not accessible to other individuals and therefore it is hard to share even in face-to-face situations. The transferring of personal knowledge usually requires the parties to be co-present and to jointly share in the concrete experiences. (Boisot 1995: 146–148.)

Proprietary knowledge can be considered as unique knowledge to the organization, which the organization develops in response to its specific circumstances. Proprietary knowledge is not necessary useful knowledge in individuals’ minds but from the organizational point of view it offers competition value by slowing down or even preventing leakages of potentially valuable information. Commonsense knowledge is reflected from the individual’s personal social situation, what they learn and how they interpret the information. Commonsense knowledge is shared by members of the organization to establish a sense of identity and meaning. (Boisot 1995: 147–149.)
3 MANAGING KNOWLEDGE IN ORGANIZATION

Organizations are constantly searching the new ways to improve their performance and to secure their success. Cabrera and Cabrera (2005: 705) define knowledge management as multidisciplinary in nature. According to Wiig (1997: 8), the purpose of knowledge management (KM) is to secure and support the organization’s viability and overall success as well as acknowledge and utilize its knowledge assets wisely. In addition, KM strengthens the competitiveness of the organization by developing and nurturing the competence throughout the organization (Viitala 2005: 14). Organizations need to incorporate KM into their overall strategies as well as part of organizations’ objectives in order to achieve an efficient successful KM (Hansen et al. 1999, DeTienne et al. 2004).

One of the key factors in KM is to cherish and increase the organization members’ competence as well as utilize it effectively. Business environment is dynamic and constantly changing, and therefore it simultaneously creates pressure to KM. Organizations need the keep up with the changes and continuously remodel the competence. (Gupta & Govindarajan 2000a, Viitala 2005: 17.) KM’s purpose is to enhance organizational performance by improving knowledge creation and sharing with implementing tools, processes, structures and cultures (De Long & Fahey 2000). O’Dell and Grayson (1998: 6) describe the KM as a framework, which is based on developing and reflecting the previous experiences and creating new ways and practices for sharing knowledge.

According to Bhatt (2001: 71), knowledge management is a process of knowledge creation, validation, presentation, sharing and application, which allows the organization to sustain and develop core-competencies by learning, unlearning, relearning and reflecting. When managing knowledge efficiently, a creation of supportive and collaborative culture and elimination of traditional rivalries are required (O’Dell & Grayson 1998: 73) as well as the organizational structure should be flexible and adaptable (Bhatt 2002).

O’Dell and Grayson (1998: 6) define KM as a conscious strategy of getting the right knowledge to right people at the right time as well as help people to share and utilize
the information in order to improve organizational performance. According to Hauke (2006: 4), knowledge flow type and quantity has to be adjusted to meet the needs of every organization member because large amount of or lack of information may lead to rejection of knowledge transfer.

Organizations pursue different KM strategies depending on what kind of knowledge they keep valuable or relevant to their operation and competitive advantage (Cabrera & Cabrera 2002, Ling, Sandhu & Jain 2009). Organizations pursue knowledge management strategies that reflect to their culture, capabilities and purpose (Wiig 1997: 8). Gupta and Govindarajan (2000: 72b) define two main tasks in effective KM: creating and acquiring new knowledge as well as sharing and mobilizing that knowledge throughout the organization.

The organizations may utilize KM strategy five different ways. The first strategy is to focus on knowledge as an overall business strategy, where the relevant knowledge is available to all organizations’ members. Second strategy is based on managing the organization’s specific intellectual assets such as patents, technologies, customer relations etc. The third strategy is to focus on personal knowledge, where the organization members and their competence create value to organization. The fourth strategy is focused on creating knowledge to organizations and in proportion; the fifth strategy is based on sharing the knowledge. (Wiig 1997: 8.)

3.1 Organizational learning

It is important to notice the concept of organizational learning because it is linked to organization KM processes. Learning in individual, group and organizational levels influences and reflects on knowledge creation and sharing. According to Hislop (2009: 93), organizational learning is “the embedding of individual and group level learning in organizational structures and processes.” Ipe (2003: 343) argues that knowledge sharing pursues individual learning and may reflect positively to awakening of organizational learning. Organizational learning is most commonly known as a change in the organization which occurs when organization needs experiences. Organizational learning is a challenging process, which evolves over
time and through experiences. Experiences acquire a context to interact with, in order to create knowledge. (Argote & Miron-Spektor 2011.)

Crossan, Lane and White (1999: 524) have developed a theory and framework based on organizational learning, called 4I. The 4I framework contains four different processes: intuiting, interpreting, integrating and institutionalizing, which occur in three different organization levels: individual, group and organization. The intuiting and interpreting occur at the individual level, interpreting and integrating at group level and finally integrating and institutionalizing at organizational level. (Crossan et al. 1999.)

*Intuiting* is learning at individual level and based on patterns of actions, which are reflected from individual’s previous experiences. Along with intuiting the once required conscious, deliberate and explicit thought changes and evolves into natural as well as obvious thing to do in other words it becomes tacit knowledge. The expertise can be thought as unconscious recollection, deeply rooted to experiences and highly subjective which explains its difficult transfer from individual to another. (Crossan et al. 1999.)

*Interpreting* process can occur in the individual and group level. Interpreting is a conscious learning process, where individuals develop cognitive maps based on their feelings and images of different operations. Language plays a vital role in development and articulation of the cognitive maps as well as in enabling the individuals to develop a sense of shared meaning and understanding. (Crossan et al. 1999.)

*Integration* process occurs in the group and organizational level. Integration is coherent, collective action, which is based on the shared understanding and meaning among the group members. Language is important factor in integration process because language developed by conversations can evolve new meaning as well as convey established meaning. Group has to value and pursue dialogue because it is the basis of shared understanding and even further effects increasingly to the mutual adjustments made inside group. (Crossan et al. 1999.)
Institutionalizing process occurs only in the organization level and it is based on controlling and guiding the organization members’ learning processes. Some of the learning, which occurred in individual and group level, is rooted on the structures, systems, procedures and over time the organizational learning evolves. When the prior learning becomes embedded in the organization, the organization members begin to take guidance and learning from the organization. (Crossan et al. 1999.)

3.2 Organizational knowledge creation

Individual knowledge is necessary for the organizational knowledge existence but it is not sufficient by itself. The easiest way to describe knowledge creation is that it is reflected in organization and its members’ generation of knowledge, which is new to them. (Argote & Miron-Spektor 2011). In more profound perspective, organizational knowledge is formed through unique patterns of interactions between technologies, techniques as well as people and it is secured from the competitors because the interactions are shaped by the organization’s history, culture and traditions. (Bhatt 2001.)

Knowledge creating process is continuous and self-transcending process, where old knowledge and acquired experiences are utilized in new context in order to create new knowledge (Nonaka & Toyama 2003: 3). Nonaka et al. (2000: 8) have proposed a knowledge creating process in organizations. The process consists from three elements, which are SECI-model, ba and knowledge assets. SECI-process is about creating knowledge through the conversion process of tacit and explicit knowledge. Ba is knowledge creating place and lastly knowledge assets are indispensable as well as valuable resources of an organization.

3.2.1 The conversion of knowledge (SECI-model)

According to Nonaka and Takeuchi (1995: 62), knowledge conversion exits in four different modes because knowledge is created through interaction between tacit and explicit knowledge, see figure 4. These four modes are socialization, externalization, internalization and combination. In socialization mode tacit knowledge is conversed into tacit knowledge. In combination mode explicit knowledge is converted to
explicit knowledge. Internalization is conversion from explicit to tacit and finally
externalization is conversion from tacit to explicit.

![Four modes of knowledge conversion](image)

*Figure 4. Four modes of knowledge conversion (Adapted from Nonaka & Takeuchi 1995: 62).*

In *socialization* mode the knowledge sharing happens through experiences because the tacit knowledge exits in individuals’ minds and in their technical skills and mental models. Tacit knowledge can be shared between individuals without using language because it can be adapted through observations, imitation and practice. Socialization process does not occur without some form of shared experiences. Therefore in organization’s environment sharing experiences with other members is crucial. In organizations the socialization mode is like an internship or apprenticeship, where the employee is constantly learning from experiences. Brainstorming is one of the practical tools utilized in socialization because it allows the individuals to share their thoughts more freely and effortlessly. (Nonaka & Takeuchi 1995: 62–63.)

*Externalization* is one of the most important knowledge conversion modes to organizations because it includes the articulation of tacit knowledge into explicit knowledge. In externalization the tacit knowledge is transferred into metaphors, models, hypothesis and analogies. The sequential use of metaphors, analogies and models allow effective conversion from tacit knowledge to explicit knowledge. Externalization mode creates new explicit concepts from tacit knowledge and therefore holds the key to knowledge creation. (Nonaka & Takeuchi 1995: 64–66.)
Combination is a process, which involves combining different kind of explicit knowledge. In other words, combination is ordering the concepts into a knowledge system. Explicit knowledge is transferred and combined by individuals through documents, meetings, telephone conversations or in the social network. New knowledge can be created by sorting, adding, combining and categorizing explicit knowledge. Explicit knowledge that exits in the databases has significant value if it can be systemized in right way in order to create something new. In organization level the middle managers usually play the main role in conversion of knowledge in combination mode. Middle managers are the ones, who draw and operationalize the corporate visions, business concepts and product concepts as well as create new concepts. (Nonaka & Takeuchi 1995: 67–68.)

The fourth mode of conversion is internalization, in which the explicit knowledge becomes tacit knowledge. In other words, it is learning by doing. In an organization employees become valuable assets, when the experiences through socialization, externalization and combination are internalized into individuals’ tacit knowledge bases. The employees internalize verbalized and diagrammed documents, manuals etc. and through practice knowledge becomes tacit knowledge. If in the organization level the knowledge creation occurs, there has to be interaction and socializing between organization members, which have accumulated tacit knowledge in individual level. In addition, this starts a new spiral of knowledge creation, see figure 5. (Nonaka & Takeuchi 1995: 69.)
According to Nonaka and Takeuchi (1995: 70), “Organizational knowledge creation is a continuous and dynamic interaction between tacit and explicit knowledge.” The four different knowledge conversion modes and changes between them shape the interaction between tacit and explicit knowledge. Spiral of knowledge creation demonstrates the flow of the SECI-model in the organization levels. In socialization the knowledge creation process is between individuals. In proportion externalization involves knowledge creation to evolve from individual level to group level. In combination mode knowledge is transferred from the group level into organizational level. Finally in the internalization mode the knowledge is again returned from organization level to individual level. (Takeuchi & Nonaka 2004: 9.) According to Nonaka et al. (2000: 12), organizational knowledge creating process constantly upgrades itself and is never-ending.

3.2.2 Ba as a knowledge creating place

Nonaka et al. (2000: 14) define the *ba* as a shared context or place, where information is interpreted to become knowledge, and where the knowledge is shared, created and utilized. In knowledge creation and conversion *ba* plays important role by providing the place, energy and quality to perform individual conversions as well as interactions, and there by enables the progress in knowledge spiral. *Ba* can be an
office space, conference room or recreation room, which are physical spaces. *Ba* can also be present virtual form, for example e-mail, chat, teleconference etc. The space can be mental including shared experiences and ideas. In organizational level it is important to strive to utilize all these three spaces because it fosters more value creation to knowledge creating process. (Nonaka & Konno 1998.) Davenport and Prusak (1998: 46, 93) have defined knowledge marketplaces, which are similar to *bas*.

Nonaka and Konno (1998: 45–47) have defined four types of *ba*, which are similar and connected to SECI-model’s four conversion types, see figure 6. Each *ba* type supports one of the SECI-model’s conversion processes and improves the knowledge creation process. Figure 6 includes two dimensions, where the other one represents interaction type, which is either individual or collective. The other dimension is media, which contains both face-to-face and virtual interactions. Examples of virtual media are books, manuals, e-mails, teleconferences. (Nonaka et al. 2000.)

![Figure 6. The four characteristics of ba linked to SECI-model (Adapted from Nonaka & Konno 1998: 46, Nonaka et al. 2000: 16).](image)

*Originating ba* is a place, where interactions occur face-to-face between individuals. In this place the individuals share experiences, feelings, emotions and mental models. *Originating ba* is linked to socialization mode, which means that the face-to-
face interactions between individuals are the key factor to conversion and sharing of tacit knowledge. Tacit knowledge transfer and conversion is depended on environment, which nurtures care, love, trust and commitment among individuals and originating ba offers the perfect place for it. From the organizational point of view the knowledge vision and culture of the organization are important in creating and having originating ba because it is the primary ba from which the knowledge creating process begins. (Nonaka & Konno 1998, Nonaka et al. 2000.)

*Interacting ba* is a place, where interactions occur collectively and face-to-face. Nonaka et al. (2000: 17) have characterized this ba as dialoguing ba, where individuals’ mental models, experiences, emotions and skills are transferred, converted and articulated into common terms and concepts. Comparing to the originating ba the interacting ba is more consciously constructed with a specific mix of individuals based on their competence and capabilities. Thoroughly selected project team can for example create new, valuable and even unique knowledge in interacting ba. (Nonaka & Konno 1998, Nonaka et al. 2000.)

Interacting ba is linked to the externalization conversion process and therefore it functions as a place, where tacit knowledge is transferred into explicit knowledge. It is crucial to dialogue and based on that interaction to form metaphors in interacting ba because otherwise the conversion process does not work properly. Organizations need to acknowledge and institutionalize the knowledge culture, where individuals collectively aim to increase the value and meaning of knowledge and there by its creation. (Nonaka & Konno 1998.)

*Cyber ba* is defined by collective and virtual interactions instead of real space and time. Nonaka et al. (2000: 17) have characterized this ba as systemizing ba, which primarily offers a context for combination conversion mode. In this ba the new explicit knowledge is merged with organization’s already existing information and knowledge. Information technology enables the knowledge to proceed forward and be shared throughout the organization as well as allowing the knowledge to become collective. In the growing information technology world on-line networks, databanks, documentation, mailing lists and Intranet offer a virtual collaborative
environment for the creation of cyber ba. (Nonaka & Konno 1998, Nonaka et al. 2000.)

*Exercising ba* is a place, which is defined by individual and virtual interactions. Exercising ba is connection with the internalization by providing it a suitable context for explicit knowledge conversion back to tacit knowledge. Individuals embody explicit knowledge, which they have learned from virtual media and through their own experiences and repetition of action the explicit knowledge converts into tacit knowledge. (Nonaka & Konno 1998, Nonaka et al. 2000.)
4 ORGANIZATIONAL KNOWLEDGE SHARING

Knowledge sharing (KS) is continuously reflecting and related to knowledge creation and organizational learning process (Bartol & Srivastava 2002). The phenomenon of knowledge sharing is difficult to comprehend in organizations due to the complexity of organization and its members’ interactions (Yang & Wu 2008). In organizational environment easiest way of implementing knowledge transfer is to hire smart people and let them interact together. In practice knowledge transfer is much more complex and although knowledge exits in organizations, it is not alone a guarantee for its use. (Davenport & Prusak 1998: 88–89.) Knowledge is shared between individuals, groups and organizations but ultimately individuals are the main resource (Welch & Welch 2008).

According to Hendricks (1999: 92), Szulanski (2000: 11), Lagerström and Andersson (2003: 86), Welch and Welch (2008: 343) and Foss, Minbaeva, Pedersen and Reinholt (2009: 872–873), effective knowledge transfer as well as creation is highly depended on the willingness and abilities of the source and recipient to interact and cooperate with each other. In addition, the approach, tools and methods as well as organization structures are significant factors in supporting KS (Riege 2005). These factors should be blended to the organization’s environment and overall vision. (McDermott & O’Dell 2001.) Lucas (2006: 259) argues that KS is not about speed and the amount of knowledge shared, instead it is about reaching those preferred knowledge flows and eventually knowledge is embedded to organization’s resources.

KS is a process, where individuals or groups spread both tacit and explicit knowledge to one another within the organization and jointly create new knowledge (Ford & Chan 2003, Rivera-Vazquez et al. 2009). Knowledge flows in organization acquire the knowledge sharing networks to be built on existing networks, which organization members already use in their daily work (McDermott & O’Dell 2001) and therefore knowledge may be more easily adapted. Foss et al. (2009: 872) state that individual behavior nurtures group and organizational knowledge sharing. From the personality point of view extrovert individual may be more reluctant and open to share own personal knowledge than introvert. Many things shape individual’s
behavior and attitude about KS for example status, religion, nationality and previous experiences.

Argote and Ingram (2000: 151) define knowledge transfer as a process, where one unit is affected by the experience of another. According to Bartol and Srivastava (2002: 65), KS happens between individuals through flows of organizationally relevant information, ideas, expertise and visions. Ipe (2003: 341) defines KS between individuals as a process, “where the individual has converted the knowledge into a form that can be understood absorbed and used by other individuals.” In order to effectively share knowledge between individuals two factors need to be enhanced, thinking and information, by building communities, which cross different organization’s levels and functions (McDermott 1999).

Knowledge sharing acquires three dimensions in order to occur among organization members. These impact factors affecting to the knowledge sharing are the type of the knowledge and its manifestation in individuals, which is shaped by their experiences. In addition, individuals’ abilities to transform the knowledge into utilizable form and share it with essential individuals at the right time with appropriate methods (Raab, Ambos & Tallman 2014). (Lucas 2006, Lin, Lee & Wang 2009.)

In organizations’ environment KS is embedded in the relationships between individuals and communities of practice (McDermott 1999, Kalling & Styhrre 2003: 80) and linked to a pre-existing core value (McDermott & O’Dell 2001). Generally knowledge transfer requires two separate parties, where both the sender and the recipient have a joint ownership on shared knowledge (Ipe 2003). If an organization member is to use another member’s knowledge, there has to be some degree of shared understanding between them (Mäkelä et al. 2007). In the literature it is also acclaimed that knowledge cannot be shared (Hendriks 1999) because it transforms into information immediately when it leaves the mind (Al-Hawamdeh 2002). Hendriks argues that knowledge is tied to knowing subject and it takes knowledge to acquire knowledge as well as to share it.

Significant amount of knowledge is embedded in organization members and communication among them is crucial for KS (Burgess 2005). Ipe (2003: 341)
defines KS as a process of making knowledge available to others within the organization which is highly dependent on organization members. Knowledge is often highly personal and difficult to articulate, why it is sticky to share with other organization members (Kogut & Zander 1992, Szulanski 1996: Lucas 2006). Most of individuals cannot articulate what they know because knowledge is largely invisible and resides in body rather than memory (McDermott 1999).

When individuals possess valuable knowledge, they face problematic issues concerning knowledge sharing. Individuals face questions like, what knowledge is relevant to share, who to share and when to share. (Andrews & Delahaye 2000: 808, Bock & Kim 2002, Ford & Chan 2003, Lucas 2006.) According to Riege (2005: 19), in MNCs and other large organizations challenges may rise, when the entire organization is involved in knowledge sharing process because it insists the organization members to apply the most of the available knowledge in order it to be useful. McDermott (1999: 108) argues that KS is “an act of knowing who will use it and for what purpose.” Organizations need strategies for knowledge sharing activities. For example, McDermott and O’Dell (2001: 79) consider KS as one important part of business strategy. The lack of a clear connection between the knowledge management strategy and overall company goals hinders the KS activities (Riege 2005).

Riege (2005: 18) questions the role of KS targets and strategies in the overall business strategy because KS is difficult to measure and the organization may lack in barrier identification. Kalling and Styhre (2003: 136) strongly claim KS is a strategic capability, which properly utilized supports and pursuits the sustainable competitive advantage of the organization. Therefore knowledge transfer methods should be in balance with the organizational and national culture (Davenport & Prusak 1998: 92). O’Dell and Grayson (1998: 7) have defined continuous six step process to transferring knowledge: create, identify, collect, organize, share, adapt and use.

Davenport and Prusak (1998: 101) as well as Schulz (2001: 662) state that knowledge transfers consist from two actions: transmission and absorption. For example if the recipients do not absorb the knowledge from the sender, it has not been shared. In addition, Davenport and Prusak add that transmission and absorption
of knowledge is useless unless the shared knowledge is not used. Effective KS requires the sender to know something about the receiver, for example, what problems they need to solve or how detailed knowledge they acquire. Sender guides the receiver through his/her insights and thinking in order to help the receiver realize his/her situation and needs better. (McDermott 1999, Lucas 2006.)

Hendriks (1999: 92–93) defines two stages, externalization and internalization, concerning knowledge sharing, which are related to Davenport’s and Prusak’s (1998) transmission and absorption theory. Externalization describes knowledge transmission, which may occur without sender even realizing its transfer. Internalization replies to absorption because receiver accepts knowledge different kind of ways.

KS is depended on establishing good managerial techniques and mechanism in organizations as well as enabling and supporting individuals in various levels to participate in knowledge flow activities (Kalling & Styhre 2003: 71). Knowledge sharing is time consuming and therefore organizations should clearly express which knowledge transfers should be pursued and encouraged as well as provide adequate recognition for it (Burgess 2005). Among individuals there is often a fear that knowledge sharing reduces job security because employees are uncertain about the sharing objectives as well as the intent of their senior management (Lelic 2001).

According to Szulanski (1996: 28), knowledge transfer process consists of four stages: initiation, implementation, ramp-up and integration. In the initiation stage knowledge transfer begins. In this stage a certain need and knowledge coexist and react with each other’s in the organization. Implementation phase consists of resource flows between the recipient and the source. In the ramp-up stage the recipient utilizes the transferred knowledge and is eager to identify and resolve unexpected problems. In the integration stage, the recipient has gained effective results with transferred knowledge, which eventually becomes routinized. (Szulanski 1996.)

Knowledge is shared either by utilizing codification or personalization strategy. In codification strategy the knowledge is codified and stored in organization’s databases
and intranets, where it can be freely accessed throughout the organization. In personalization strategy the knowledge is shared mainly through direct contacts and the role of technology is to ease the organization members’ communication of knowledge with each other’s. (Hansen et al. 1999.)

Knowledge sharing is particularly important asset in organizational learning because it expands the gap between individual and organizational knowledge. The more the organization members share their knowledge with each other, the better understanding level will be among organization. (Ford & Chan 2003, Rivera-Vazquez et al. 2009.) Knowledge sharing between and among organization members is significant part of creating a knowledge-based competitive advantage (Kogut & Zander 1992, Argote & Ingram 2000, Burgess 2005, Lin et al. 2009).

Individuals receive knowledge sharing as an important process because they measure their value to the organization in terms of their ability to interpret and acknowledge the organization members, who possess the certain knowledge. In other words, knowledge sharing enables the organization members to feel like they have contributed the organization and provided it with valuable assets. (McNeish & Mann 2010.)

Knowledge repositories enable the organization members to transfer experiences, work methods, ideas by posting documents and written instructions to databases, which are accessible throughout the organization. Therefore knowledge repositories are important in facilitating knowledge sharing within organization. (Cabrera, Collins & Salgado 2006.) The drawback to open access of knowledge is that the community’s actual need of certain knowledge diminishes, unless all members truly require all the available knowledge in their work assignments (McDermott 1999).

There is no clear distinction made in the literature between the concepts of knowledge transfer and knowledge sharing. Usually in the literature the concepts represent same meaning and are used in the same context simultaneously. However some of the researchers use and apply the concept of knowledge transfer, when defining the overall and broader knowledge transfer process (O’Dell and Grayson...
According to McNeish and Mann (2010: 19), knowledge transfer is “about the ability to take action (transfer) based on knowledge.”

In proportion, knowledge sharing is seen as more of an act, which happens in different organization levels and especially between and among individuals and groups (Ford & Chan 2003, Ipe 2003). McNeish and Mann (2010: 19) define knowledge sharing as an exchange of knowledge between two individuals and it exists before the knowledge transfer. Schultz (2001) perceives the concept of knowledge sharing and transfer as knowledge flows in an organization. In this research the concepts of knowledge sharing and transfer as well as knowledge flows are used in the same context but knowledge sharing being as the defining one.

4.1 Key factors effecting knowledge sharing

In the literature, there are numerous factors acclaimed to have an effect on knowledge sharing and some of the most common key factors are gathered in the figure 7.
Figure 7. Factors effecting knowledge sharing.

Riege (2005: 19) emphasizes the importance of organization members, systems and processes importance in creation of knowledge sharing culture. O’Dell and Grayson (1998: 24–25), DeTienne et al. (2004: 27) and Lin et al. (2009: 36–38) acknowledge technology’s and infrastructure’s value to KS because these create the bases for individuals to connect with each other’s. Shared language is reflected from the interpersonal similarity, which has positive impact on KS (Ford & Chan 2003, Mäkelä et al. 2007). Nonaka et al. (2000: 28) represents softer factors like love, care and commitment, which indicate the positive impact of relationship to KS.

According to McNeish and Mann (2010: 20), social processes, external incentives and previous experiences are important in supporting KS. Gupta and Govindarajan (2000b: 79) have also recognized the importance of incentives, which are group-based. In addition, they have presented three additional ways to maximize the knowledge sharing, which are to ban knowledge hoarding, codify tacit knowledge and utilize specific mechanisms to certain type of knowledge.

Cabrera and Cabrera (2002: 704) determine factors that would encourage or reinforce in knowledge sharing: create a climate of openness and knowledge friendly culture, increase organizational commitment, communicate the benefits of knowledge transfer, reward individual participation and redesign jobs and work processes. Organization members’ behaviors effect on knowledge sharing and it’s utilizing through practices, norms and values (De Long & Fahey 2000). DeTienne et al. (2004: 27) and Lin et al. (2009: 36–38) emphasize the importance of organizational
leadership and chief knowledge officers (CKOs), which both give an example for other’s how to act and share personal knowledge. According to Yang, Chen and Xu (2012: 207) communities of practice (CoP) may resolve many KS barriers and act as facilitator. CoP and virtual communities of practice (VCoP) helps organization members in daily interactions by acting as communication tool across organization (Pawar & Rogers 2014).

Bhatt (2001) agrees with DeTienne et al. (2004) that in KM the technological tools need to be combined with human-based approach to achieve an effective KM. According to McDermott (1999: 112), organizations should pursue information technology for sharing information and forums as well as intranets for thinking, which ultimately produces knowledge. Hauke (2006: 3) agrees that social networks are one of the key components in knowledge sharing because they are created on non-formal basis pursuing spontaneous interaction and communication. Therefore, in the individual level one of the most critical issues influencing knowledge flows is communication skills (O’Dell & Grayson 1998) as well as the appreciation which they need to receive from the organization (Riege 2005). Effective and continuous communication, both verbal and written, is fundamental to effective knowledge sharing (Davenport & Prusak 1998).

Psychological determinants of knowledge sharing are for example personality, organizational commitment and role breadth self-efficacy (RBSE). Three personality dimensions affect positively to knowledge sharing behavior agreeableness, conscientiousness and openness to experience. Individuals with agreeable personality tend to be cooperative and supportive, which pursues their knowledge sharing and adapting. Conscientiousness individuals feel that knowledge sharing activities are part of their assignments. Openness to experiences enables individuals to explore and seek the other organization member’s insights to satisfy the individual’s curiosity and originality. Organization members, who indicate significant internalization to their organization, are keener to share knowledge. Individuals with high levels of RBSE are likely to exchange knowledge because they have self-directed, flexible and interpersonal nature. (Cabrera et al. 2006.)
In organizational environment job autonomy, rewards as well as perceived supervisory and peer support effect on knowledge sharing (Ling et al. 2009). Organization members enjoying high job autonomy have more potential to share knowledge because they have no clear rules or regulations concerning work and therefore have opportunity to explore new and creative ways to do the assignments. Individual, who receive intrinsic or extrinsic rewards are more likely to share knowledge within organization. Intrinsic reward is described as intangible and non-materialistic award because it provides its receiver earned recognition and achievement. In proportion, extrinsic reward is tangible and physically given to the individual for achieving something. Organization members’ behavior to share knowledge is stimulated by other colleagues support and example to share knowledge (Ipe 2003). (Cabrera et al. 2006.)

4.1.1 Nature of knowledge

According to Ipe (2003: 343), “two characteristics of the nature of knowledge, tacitness and explicitness of knowledge, and the value attributed to knowledge have a significant influence on the way knowledge is shared within organizations.” Tacit knowledge is far more difficult to share because it resides in the minds of the individuals. Unlike tacit knowledge explicit knowledge is more reachable because it is usually available in readable format to organization members, who seek it. Welch and Welch (2008: 343) suggest that knowledge should be somehow converted into explicit in order to share it.

From the organizational point of view the advantages of tacit knowledge are low costs of information technology. In addition, tacit knowledge is quit safe from attempts of copying. In proportion, the disadvantages of tacit knowledge are the sharing and storing because organization members may be reluctant to share their tacit knowledge in the fear of losing the ownership or unique status. (Saarinen 2009: 18.) Sharing tacit knowledge is far more difficult and time consuming process than sharing explicit knowledge.

One significant disadvantage originates in nature of tacit knowledge, when an employee leaves from organization and no actions have been taken to retain the
knowledge in the organization (Ardichvili, Page & Wentling 2003, Ling et al. 2009, Bengoa Sánchez, Kaufmann & Vrontis 2012). For this reason organization loses a great value of tacit knowledge. (Riege 2005.) In the future, this scenario is going to be a big problem because the baby boom generation is going to retire in upcoming years. That generation employees have enormously work experience and consequently valuable tacit knowledge resources.

Explicit knowledge has several advantages from the organizational point of view compared to tacit knowledge. Explicit knowledge is not personal and it can exist independently without a knower. Unlike tacit knowledge explicit knowledge is ease to share and communicate inside an organization. If the employee leaves the company, the explicit knowledge will not disappear unlike in the case of tacit knowledge. On the other hand explicit knowledge has few disadvantages, for example it requires huge and costly investments on information technology and it is relatively easy to copy. (Saarinen 2009: 18.)

4.1.2 Motivation

Organization members do not share their individual knowledge without a strong personal motivation and a clear reason to do it (Stenmark 2001, Bock & Kim 2002, Cabrera & Cabrera 2002, Welch & Welch 2008, Ling et al. 2009). Knowledge sharing is based on personal behavior and therefore the motivation of individual behavior is crucial (Yang & Wu 2008). Organization members are more willing to share their personal knowledge if they feel sharing has some benefit to their own interests. If the organizational and individual benefits are not linked, the organization members’ motivation becomes problematic challenge for organizations to manage. (Bukowitz and Williams 1999: 167.)

If individuals acknowledge that the power is based on personal knowledge, the sharing is far more reluctant because of the fear of losing ownership or the reward for sharing is insufficient (Szulanski 1996, Gupta & Govindarajan 2000b, Nonaka et al. 2000, Stenmark 2001, Bock & Kim 2002, Ford & Chan 2003, Ipe 2003, Ardichvili 2008, Lin et al. 2009). If some of the organization members possess knowledge, which is considered as a competitive advantage or strategic resource for an
organization, they have the advantage over other organization members as well as enjoy the benefits and unique positions, enabled by the power status gained through owned knowledge. For this reason the organization members may hoard the knowledge themselves in order to maintain the unique position. (De Long & Fahey 2000, Ipe 2003, Yang & Wu 2008.)

Knowledge transfer between organization members is important and therefore individual motivation is one possible barrier to successful knowledge flows (Szulanski 2000). Individuals are afraid to share knowledge because they feel like the information does not deserve to be shared (Ling et al. 2009), it may not be completely accurate or it may not be relevant to specific interactions. In other words, the organization members fear to lose face or mislead the other members. (Ardichvili et al. 2003, Ardichvili et al. 2006.) Organization members need to assume that sharing knowledge will prove worthwhile and payoff, although the results may be uncertain (Nahapiet & Ghoshal 1998, Schulz 2001, Yang & Wu 2008). Welch and Welch (2008: 352–353) argue that individuals’ uncertainty will lead to the knowledge hoarding and ultimately affect to motivation to share because individuals do not know what to do with the knowledge.

Expectation is that those who have shared knowledge will get appropriate acknowledgements and benefit from the knowledge and involvement (Hendriks 1999, Ipe 2003, Burgess 2005). In some cases individuals have unselfish acts towards motivation by sharing knowledge without receiving any rewards. For example, some may share knowledge in purpose to establish themselves as experts or some want to share their expertise and mentor new employees. (Ardichvili et al. 2003, Ardichvili 2008.) Organization’s leaders are responsible in creating an environment where employees feel safe to share knowledge. Management should also cultivate commitment amongst organization members. (Nonaka et al. 2000.)

Organizations should not take its members’ motivation to share knowledge for granted (Cabrera & Cabrera 2002). The role of the organization’s culture is to nurture continuous learning, which allows the individuals to feel like they share knowledge for the general good of the organization (Bukowitz & Williams 1999: 197, Ardichvili et al. 2003, Lin et al. 2009). Short-term motivators for organization
members should be taken into consideration because today’s dynamic business environment the employment is in increasingly amount generalized. Usually the short-term employees are reluctant to contribute organizational knowledge because they may never benefit from it. (DeTienne et al. 2004.)

If a proper support for learning is lacking from the cultural point of view, employees are forced to do in their own time, which creates block to knowledge flows (Bukowitz & Williams 1999: 197). Organization members may feel reluctance to share knowledge if the finding of relevant parties is too great (Hendrinks 1999). In order to motivate employees to share knowledge, the employees need to be allowed the time and space to contribute their best work to organization (Cabrera & Cabrera 2002, Burgess 2005, Riege 2005). Knowledge will flow in organizations if the members are motivated by moral obligation and community interest (Ardichvili et al. 2003, Hew & Hara 2007, Ardichvili 2008.).

The organizations need to create dedicated roles to support the contribution process of the individuals as well as the transfer of their tacit knowledge. In addition, the more linkages organization contains among and between its members, the greater likelihood the knowledge will flow. (Bukowitz & Williams 1999: 184–192.) Foss et al. (2009: 871) argue that job design may effect on organization member’s motivation to share knowledge. The work relationships are one of the motives to share knowledge.

Exchange relationships are based on reciprocity in knowledge sharing and in communal relationships knowledge sharing occurs without expectation of reciprocity. (Ipe 2003, Burgess 2005.) Receiving knowledge from other individuals stimulates reciprocal sharing of knowledge both vertically and horizontally in the organization (Schultz 2001). According to Welch and Welch (2008:353), individuals are motivated to share knowledge with individuals who are familiar, trustworthy and share the same language.

Four main challenges affecting on organization members motivation to share knowledge are removing barriers to sharing, linking contribution to opportunity and advancement, withholding benefits from non-contributors and finally finding points
of mutual benefit (Bukowitz & Williams 1999: 167). Foss et al. (2009: 875–876) have defined three different types of motivation that effect on knowledge sharing, which are intrinsic, introjected and external. When organization members’ find knowledge sharing activity itself as interesting, enjoying and stimulating, it is based on intrinsic motivation. Organization members share knowledge to maintain and enhance feelings of worth in organizations, is based on introjected motivation. External motivation reflects the organization members’ knowledge sharing as external contingency driven. Job autonomy increases the organization member’s intrinsic motivation to share knowledge and task identity is positively linked to introjected motivation. In addition, feedback has beneficial effect on external motivation to knowledge sharing. (Foss et al. 2009.)

The relationship between the sender and receiver is significant to take into consideration, when observing the motivation to share knowledge (Ardichvili et al. 2003). The factors that affect the relationship are trust, power and status of the receiver. (Ipe 2003.) According to Szulanski (2000: 11–12), the sender’s incentive to compete and collaborate with the receiver may affect to the motivation of the sender. Kramer (1999: 163) via Thompson, Levine and Messick (1999) argues that organization members are reluctant to share their personal knowledge because they may assume that every member is not sharing the same amount of information than they do. Trust issues are dominant in competitive organization environment because the rapidly changing contexts and seek of personal gain are destructive to trust. One of the knowledge sharing factors affecting to knowledge sharing is the source’s trustworthiness and recipient’s motivation to seek and absorb knowledge. (Szulanski 2000: 11–12, Lin 2011.)

4.1.3 Interpersonal similarity

According to Watts (2003: 13), interpersonal similarity is often referred to as homophily, which can be defined as a tendency to associate with people like you. Mäkelä et al. (2007: 7–8) argue that homophily and similarity are two different concepts and based on that argument interpersonal homophily cannot exist without interpersonal similarity. In Mäkelä et al. theory similarity represents the likeness of different individuals as homophily is seen as tendency to interact with similar
individuals. In their study Monge and Contractor (2003) have combined two main explanations for the generic tendency of hemophilic behavior. The first theory, similarity-attraction theory (Berscheid & Walster 1969, Byrne 1971), which Heider (1958) has exemplified, states that similarity reduces psychological discomfort and conflict arising from cognitive or emotional disparity. The second theory, the theory of self-categorization (Turner, Hogg, Oakes, Reicher, Wetherell 1987), suggest that individuals define their social identity through self-categorizing themselves and others using psychological groups. (Monge & Contractor 2003: 223–224, Mäkelä et al. 2007.)

According to McPherson, Smith-Lovin and Cook (2001: 415), homophily limits the individuals knowledge sharing processes by controlling the information they receive, the attitudes they form and the interactions they experience. Mäkelä et al. (2007:14) agree that acquisition of new knowledge may suffer from similarity because it breeds a lot of knowledge, which is common to all and for some may be irrelevant. The circulation of this kind of knowledge may hinder the knowledge creation process.

Homophily’s main principle is that interactions and knowledge sharing is more likely to occur between similar than dissimilar individuals (Mäkelä et al. 2012: 1). The connection may be based on cultural (such as nationality and religion), geographical proximity, genetic (such as age and gender) or behavioral (such as occupation, education or social class) factors. (McPherson et al. 2001, Haas & Cummings 2015.) In multicultural context the cultural similarity has more effect on knowledge sharing than other connections (Mäkelä et al. 2012: 1). Reinforcing similarity between individuals in some area may reduce the difference cap in others, for example increasing communication may affect positively to cultural similarity (Mäkelä et al. 2007). According to Welch and Welch (2008: 354), key part of similarity is language, which may determine whether individual is in or out of the knowledge sharing network.

Individuals with low status and power tend to share their know-how upwards, which means individuals in higher positions. In addition, individuals with higher power and status tend to share their knowledge in horizontal level with individuals with similar status rather than with the lower status. (Huber 1982.) According to Davenport and
Prusak (1998: 100), the status of the knower is essential in knowledge sharing, for example in engineering companies the senior staffs’ knowledge sharing is valued more than the junior staffs. If organization members acknowledge that sharing certain knowledge decreases their power and incurs personal risks, the sharing is unlikely to occur (De Long & Fahey 2000, DeTienne et al. 2004).

4.1.4 Leadership

To be able to share knowledge along formal structures within the organization effectively, the management support and leadership is a crucial factor. Management’s responsibility is to create and develop a nurturing environment as well as organizational culture that drive knowledge sharing despite of different national cultures inside the organization. Management support is also one of the key factors in identifying who knows what in order the organization members to seek knowledge from the right person. If the organization wishes to capture the knowledge embedded in the organization and among its individuals, the management will have to identify it and support appropriate behaviors to be able to share it. (Ford & Chan 2003.)

4.1.5 Communication

Without communication knowledge sharing would be impossible. Communication is not something taken for granted because it can be challenging and sometimes even seamless. There are many forms of communication but the most efficient way in knowledge sharing is the face-to-face interaction because it allows the use of both verbal and non-verbal communication. Sharing tacit knowledge benefits from frequent communication (Nonaka 1994), especially if the communication happens face to face. (Welch & Welch 2008.)

Communication is vulnerable action and many factors may influence on its fluency. Multicultural setting defines the communications as cross-cultural, which means the exchange of meanings and information between organization members from different cultures. The greater the difference between the sender’s and receiver’s culture, the higher the possibility to miscommunication. (Adler 1997: 70.) Language diversity
especially hoards successful communication and it may launch a chain reaction of other possible barriers to interactions between individuals (Harzing & Feely 2008).

Cabrera and Cabrera (2005: 722) argue that there is a positive relation between communication frequencies, shared language and knowledge sharing. The more organization members communicate and interact with each other’s, the more they are expected to share knowledge (Al-Alawi et al. 2007, Mäkelä et al. 2007). Knowledge flows are valued by supporting good social relationships. The frequencies of interaction and communication between the organization’s members have a significant positive effect on knowledge sharing between them. (Lauring & Selmer 2011.)

4.1.6 Information technology (IT)

According to O’Dell and Grayson (1998: 85), KM and technology have synergic relationship, which drives the both parties operate more effectively. IT has reduced the cost and enhanced the knowledge sharing process by lowering the temporal and spatial barriers between organization members (Hendriks 1999, Cabrera & Cabrera 2002, Ardichvili et al. 2003, Cabrera et al. 2006, Lin et al. 2009, Pinjani & Palvia 2013, Raab et al. 2014). Without technology virtual KS would be impossible because it links the individuals across the organizations (Ardichvili et al. 2003, Zakaria, Amelinckx & Wilemon 2004, Pinjani & Palvia 2013). Ardichvili (2008: 549) add that VCoPs should use technology not only as a tool but value its significance to community’s identity and individuals behaving patterns.

In proportion, IT has negative impact on organization members’ actions because it enables the flow of large amount of information and the identification of relevant information is challenging. (Davenport & Prusak 1998: 128–143, O’Dell & Grayson 1998: 85–86.) Welch and Welch (2008: 349) bring forth one possible disadvantage, which relates to the fact that with IT knowledge may be shared in different languages and then the individual’s language competence comes determinative. Bock and Kim (2002: 19) argue that in the individual level IT brings no value and positive effect to knowledge sharing process.
It is important to notice that IT provides the solutions and connections to implement KM and its processes more effectively but does not in itself guarantee knowledge sharing willingness (Nahapiet & Ghoshal 1998, O’Dell & Grayson 1998: 86, Gupta & Govindarajan 2000b, Stenmark 2001, Sveiby & Simons 2002, Riege 2005, Al-Alawi et al. 2007). To be able to achieve an effective knowledge sharing human interaction and culture are necessary addition to information technology. (McDermott 1999, Kalling and Styhre 2003: 75, Zakaria et al. 2004, Cabrera et al. 2006.) Social environment, which nurtures human interactions, reinforces and encourages knowledge sharing (Cabrera & Cabrera 2002). Welch and Welch (2008: 349) acclaim that in order to share knowledge, either by IT or face-to-face, a shared language is self-evident.

Organizations often have information technology architecture, which consists for example from intranets, web-based technologies, groupware and discretionary databases (Cabrera & Cabrera 2002, Ardichvili et al. 2003, Lagerström & Andersson 2003), which increase the opportunities to share knowledge (Nahapiet & Ghoshal 1998). Hendriks (1999: 93) claims that intranet may be the most prominent information and communication technology (ICT) tool. Technology links organization members across time and space as well as allows the efficient transfer of explicit knowledge (Gupta & Govindarajan 2000b, Cabrera & Cabrera 2002, Ardichvili et al. 2003, Welch & Welch 2008). (O’Dell & Grayson 1998: 89, 103.) According to Pinjani & Palvia (2013: 145), ICT mitigates the effects of cultural diversity and supports individual interactions across MNCs.

IT can enhance articulate, capture and document explicit and tacit knowledge. When organizations try to implement IT architecture, they face challenges in selecting the right platform, application and tools as well as right utilizing methods. The infrastructure also sets challenges to create a functional IT architecture. (O’Dell & Grayson 1998: 103, Welch & Welch 2008.) In KM the ICT may facilitate the data storing into information bases, which are not relevant in individuals’ immediate assignments and work (Hendriks 1999).

ICT’s role in knowledge sharing is to stimulate knowledge owners to present their knowledge in easily available formats throughout the organization (Hendriks 1999).
In organization environment the IT can be utilized to reinforce and improve trustworthiness by assuring compliance with regulations and deterring misbehavior (McNeish & Mann 2010). However, Kramer (1999: 91) via Thompson et al. (1999) argues there is increasing evidence that IT systems may undermine trust behaviors. Organizations, which use the IT architecture, face often difficulties in encouraging its members to use the systems to share knowledge (Cabrera & Cabrera 2002). Argote and Ingram (2000:158) state that knowledge embedded in technology eases the organization’s internal knowledge transfer but also speeds its spillover to other organizations.

### 4.2 Knowledge stickness

Szulanski (1996: 29) defines concept of knowledge “stickness”, which describes the challenges and difficulties of knowledge sharing. Riege (2005: 23) represents three different levels in which knowledge sharing barriers occurs, individual, organizational and technology level. Inside these different levels there are four significant characteristics, nature of knowledge, sender, receiver and context, on which KS and its barriers are based on (Szulanski 1996: 29).

At an individual level knowledge sharing barriers are reflected from the lacking communication skills and social networks, differences in national culture, hierarchical structure and status as well as lack of time and trust (Ford & Chan 2003). Organizational level barriers tend to relate to the fact that organization is unable to provide required resources and environment for individuals to utilize KS. Technology level knowledge sharing barriers relate to technology-based systems and individuals’ willingness to apply them. (Riege 2005).

Szulanski (2000) defines four stage process of knowledge transfer as well as presents the stickness factors in each stage. Initiation stickness consists of the challenges to recognize the knowledge transfer opportunities and act upon them, which are influenced by uncertainty and causal ambiguity. Source’s articulation of the knowledge may be insufficient and the recipient may lack the ability to specify the context, where knowledge can be applied. Implementation stickness describes the difficulties in bridging the gap between the source and recipient, which may become
even more challenging when cultural diversity occurs. In ramp-up stickness the main concern is to identify and resolve unexpected problems, for example, when the recipient starts to utilize the acquired knowledge. In integration stickness the challenge is to routinize the transferred new knowledge and remove the possible obstacles. (Szulanski 2000.)

Organization members’ are reluctant to share knowledge if mistakes are not tolerated or the sharing culture lacks openness (Hendriks 1999). Internal knowledge sharing in organizations is difficult to achieve because of the internal culture of resistance to knowledge sharing (Bock & Kim 2002, Sveiby & Simons 2002). In many organizations the individuals’ basic insecurity and fear may be the biggest obstacle in knowledge sharing (Lin et al. 2009, McNeish & Mann 2010). O’Dell and Grayson (1998: 16) state that people have a natural desire to learn and share knowledge but the organizations’ diverse logistical, structural and cultural blocks makes it challenging. According to Riege (2005: 27), large hierarchical organizations and vertical communication hinder KS.
5 MULTICULTURAL SETTING

According to Lauring and Selmer (2009: 325) and Trefry (2006: 563), multicultural organizations have a lot of workforce from various nationalities and the growing globalizations as well as its effects on mixing the cultures inside organizations are even more common outlook in the future. Diversity in workplace or in virtual environment is a key for the organization’s competitive advantage if organization is able to properly cherish the multiculturalism. In today’s constantly changing environment the multiculturalism is an asset because it enables organizations to approach and solve problems from different perspectives, which are based on diverse cultures and their new ways of thinking, learning and adapting. (Trefry 2006.)

5.1 Defining culture and cultural diversity

Culture is combination of shared history, expectations, motives, values, beliefs, unwritten rules and norms, which affect organization members’ behavior (O’Dell & Grayson 1998: 71, House, Hanges, Javidan, Dorfman & Gupta 2004, Lucas & Ogilvie 2006). Culture can be seen as a mental phenomenon, which reflects on how individuals within a certain group think, value and behave in similar ways, and how this way of experiencing things differs from individuals in different groups (Alvesson & Sveningsson 2008: 36). McDermott and O’Dell (2001: 77) define culture as system of beliefs, which are embedded within the organization environment and are reflected in the behaviors and actions of its members. Culture is significantly important factor in how organizations operate and how its members can relate to it.

According to Alvesson and Sveningsson (2008: 38), culture is expressed in language, stories and myths as well as in rituals, practices and physical expressions such as architecture and actions. Usually culture is connected with different aspects like religion, nationality, language, social class etc. According to Hauke (2006: 1), culture cannot only be limited to previous or other aspects because culture should evolve continuously by acquiring and transmitting those factors.
Cultural diversity is multidimensional in organizational environment and its basic concept is based on differences between individuals. Demographic differences may be referred as surface level diversities such as age, education and gender. Deep-level diversity includes differences in personal characteristics for example values and attitudes. In addition, functional diversity represents the diversity of individuals’ functional background, which pursues the knowledge resources from different sectors. (Pinjani & Palvia 2013.) Cultural diversity is referred to as categorizer because it forms groups based on different attributes (Williams & O’Reilly 1998, Henderson 2005, Lucas 2006, Ernst & Yip 2008). Ernst and Yip describe these previous diverse groups as in- or out-groups.

The diversity expands meanings and alternatives in organization members. Diversity enables to see the issues in multiple perspectives as well as make various interpretations. Diversity effects on greater openness to new ideas and therefore increases creativity, flexibility and problem-solving skills. Individuals have acceptance and tolerance for other’s diverse cultures. Organizations should utilize cultural diversity as a resource rather than see it as a liability to organization’s performance. (Adler 1997: 100–101, Trefry 2006.) In the literature it is argued that cultural diversity is generally beneficial for organizations because demographic diversity is presumed to be linked and associated with cognitive diversity, which expands group’s knowledge resources and in the same time increases problem-solving abilities (Van Knippenberg, De Dreu & Homan 2004.)

On downside, diversity increases ambiguity, complexity and confusion among organization members. Diversity influences negatively to decision making as well as to communication by creating misunderstandings. Diversity slowdowns the interactions between individuals and requires more effort to from both parties to reach common understanding. Diversity is argued to increase mistrust, which is based on lower interpersonal similarity and interaction beyond cultural borders. (Adler 1997: 100, 132, Trefry 2006.) Lucas (2006: 271) argues that cultural differences may be seen as bottlenecks, which may hinder or prevent possible knowledge sharing among organization members.
5.2 Macro and micro levels

World contains various nationalities and therefore numerous cultures. Geert Hofstede (1986), Fons Trompenaars and Charles Hampden-Turner (1997), Edward T. Hall (1973), Richard R. Gesteland (2002) as well as House et al. (2004) have studied the differences between different national cultures and the influences, which these cultures may cause to organizations and its members. Hofstede’s (1986) cultural dimensions are the most commonly used in the literature. Bradley (1991: 126) founded the idea of two different levels, macro and micro. Macro level is concerned with cultural dimensions and micro level is based on organizational culture, which is shaped by the organization members’ cultural backgrounds and nationalities. Knowledge sharing is successful in organizations by only combining these two levels. (Hauke 2006, Rivera-Vazquez et al. 2009.)

The national culture and organizational culture are hereby two entirely distinct concepts. Organizational culture makes every organization unique simultaneously valuing its national heritage as well as environment as base ingredients (Zakaria et al. 2004). In proportion, national cultures distinguish nations while holding organization contexts constant as possible. (Hofstede 2001: 391.) According to Adler (1997: 63), organization culture enhances and maintains national cultural differences. Different cultural dimensions and organizational culture are key factors in effective knowledge sharing process. In other words, the organization’s management needs to acknowledge the micro and macro levels of the cultural impact, while pursuing and fostering knowledge sharing.

In macro level the KS barriers are concerned with national culture dimensions and in micro level the barriers are reflected from the organizational culture’s point of view. Micro level barriers may be divided into two categories, objective and subjective. Objective barriers represent the factors, which may occur independently without the individual’s involvement. Objective barriers may be seen as external barriers from the individual’s point of view. In proportion, subjective barriers represent the individual’s own psychical challenges, which are reflected from internal barriers. (Hauke 2006, Rivera-Vazquez et al. 2009.)
The objective cultural barriers in micro level include for example unbalanced organizational culture, lacking communication within organization, diverse technological know-how, organizational culture promoting the results and not experience sharing, lack of support of management in knowledge sharing process, intolerance toward mistakes or need for help, status and rewards given to knowledge owners, lack of financial incentives promoting to acquire new knowledge or transmitting it, and finally lack of time. The majority of these barriers may be prevented if the managers pay attention to knowledge flows and processes as well as ensure the appropriate environment and resources. (Hauke 2006.)

The subjective cultural barriers include for example protection of own position and competence, lack of sentiment that the knowledge that one possess may be useful for other organization members, internal fear, which reflects from feeling that the knowledge may not be good enough, lower-level workers feel being discriminated, fear of only giving information and not receiving any, lack of trust, fear of changes, high self-esteem, and sentiment that other organization members do not know how to use their knowledge. One of the subjective cultural barriers may also be the status in an organization because of the fear of losing the special position. In these situations the managerial support and encouragement is important. (Davenport & Prusak 1998: 88–106, Hauke 2006.)

5.2.1 National culture

Hofstede (2001: 29) defines five cultural dimensions, which are based on national culture: power distance, individualism/collectivism, uncertainty avoidance, masculinity/femininity and long-term orientation. Organization’s operational knowledge management processes including knowledge sharing are affected and determined by Hofstede’s different cultural dimensions (Ford & Chan 2003).

First cultural dimension is power distance (PD). The base of power distance lies in the human inequality, which is in each society handled differently. Power distance is related to physical and mental characteristics, prestige and social status, wealth, power and privileges. The general example of power distance and its inequality is the relationship between the boss and subordinate. Power distance measures the
interpersonal power’s influences on two individuals, which is perceived by the less powerful of the two. (Adler 1997: 51, Hofstede 2001: 79, 80, 83, Ford & Chan 2003, Lucas 2006.) The characteristic differences between low and high power distance in organization environment have been presented in the table 1. These characteristics may impact on knowledge sharing process either by fostering or reducing it.

Table 1. Characteristic differences between low and high PD (Adapted from Hofstede 2001: 107–108, Ford & Chan 2003, Lucas 2006.)

<table>
<thead>
<tr>
<th>Low PD</th>
<th>High PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization structure flat</td>
<td>Organization structure tall</td>
</tr>
<tr>
<td>Decentralized decision making</td>
<td>Centralized decision making</td>
</tr>
<tr>
<td>Small amount of supervisory personnel</td>
<td>Large amount of supervisory personnel</td>
</tr>
<tr>
<td>Openness with information</td>
<td>Information constrained by hierarchy</td>
</tr>
<tr>
<td>Willing to exchange ideas and consult others</td>
<td>Perceivable in exchanging ideas and consulting others</td>
</tr>
<tr>
<td>Individuals see themselves as information providers</td>
<td>Individuals see themselves as information acquirers</td>
</tr>
</tbody>
</table>

High power distance cultures may have more hierarchical structures and therefore knowledge may be more likely to flow from the top down. In addition, the knowledge flows are more limited than in low power distance cultures. Small power distance lowers the organization’s vertical hierarchy of power and makes the levels to see themselves more as equals, which enables knowledge to flow between individuals with different status and power. (Hofstede 2001: 107–108, Ford & Chan 2003, Hauke 2006, Rivera-Vazquez et al. 2009.) Culture with high power distance may diminish the value of knowledge that exists within the lower levels of the organization and therefore knowledge sharing upwards may be tricky. On the contrary, knowledge from the higher social class of the high power distance culture would be easier to share upward because it carries more value.

Cultures that have low power distance may have more down to top knowledge sharing as individuals within the lower social class would feel more comfortable to share their ideas and opinions with individuals in higher positions. In high power distance cultures if the management encourages knowledge sharing, it is likely to occur, unlike in low power distance culture. In low power distance cultures knowledge sharing may occur to both directions because the cooperation between

If the knowledge provider has high PD and receiver has low PD, then the provider has a control and influence over the receiver, who is dependent on the provider’s willingness to share knowledge. In other words, providers eventually need to compromise and negotiate in order to enable the knowledge sharing between individuals with different PD. On the other hand if knowledge provider has low PD and receiver high PD, the situation becomes complicated. Receiver acknowledges the benefit from acquiring valuable knowledge, there is still a consciousness of being seen as vulnerable. Receiver experiences the knowledge sharing process happening on their terms and in the same time provider tries to ease the sharing process. (Lucas 2006.)

The second cultural dimension is individualism (IDV). This natural dimension reflects the extent of which individuals value self-determination and own needs in front of the need of the group or organization. In organizations where individualism is dominiative, the individuals’ decisions and input are valued more than groups. In proportion, collectivism or low individualism organizations the group efforts are pursued and respected. Collectivism is reflected in strong relationships between individuals in a team or organization. Individualism strive more of individuals own purposes and personal gain. (Adler 1997: 25–26, Hofstede 2001: 29, 212, Ford & Chan 2003, Ardichvili, Maurer, Li, Wentling & Stuedemann 2006, Lucas 2006, Hauke 2006, Wentling & Stuedemann 2006, Rivera-Vazquez et al. 2009.) The characteristic differences between low and high individualism in the organization are presented in the table 2.

<table>
<thead>
<tr>
<th>Low IDV</th>
<th>High IDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication is supported and high-context</td>
<td>Communication is more low-context</td>
</tr>
<tr>
<td>Attitudes towards other organization members depend on the relationships; relationships prevail over task and company</td>
<td>Attitudes towards others is independent of relationships; task and company prevail over relationships</td>
</tr>
<tr>
<td>Confrontations are avoided</td>
<td>Confrontations are normal</td>
</tr>
</tbody>
</table>

Employees act in the interest and welfare of their in-group. Employee commitment to organization high. Employees perform best as in groups. Collective accomplishments are valued. Organizational success is attributed to sharing information and openly committing oneself. Individuals rely more on non-verbal actions in sharing meanings and long for richer media. Individuals see themselves as members of community and pursue common goals and objectives. Nations: Asia (Japan, China), South America.

<table>
<thead>
<tr>
<th>Employees act in the interest of personal gain and welfare</th>
<th>Employees act in the interest of personal gain and welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee commitment to organization low</td>
<td>Employee commitment to organization low</td>
</tr>
<tr>
<td>Employees perform best as individuals</td>
<td>Employees perform best as individuals</td>
</tr>
<tr>
<td>Individual accomplishments are valued</td>
<td>Organizational success is attributed to withholding information and not openly committing</td>
</tr>
<tr>
<td>Individuals emphasize and utilize information in articulated form</td>
<td>Individuals emphasize and utilize information in articulated form</td>
</tr>
<tr>
<td>Individuals have personal objectives and goals</td>
<td>Individuals have personal objectives and goals</td>
</tr>
<tr>
<td>Nations: North America (USA, Canada), Europe</td>
<td>Nations: North America (USA, Canada), Europe</td>
</tr>
</tbody>
</table>

Individualistic cultures may front more challenges in knowledge sharing than collectivism cultures because knowledge is often seen as a source of power and a tool for success for the individual and therefore employees aren’t easily willing to share their knowledge assets. In collective cultures individuals inside a group try to benefit from the shared knowledge as a team. In high collectivism organizations members are aware that teamwork yields better results than individual work. Collectivism increases the cooperation and solidarity, which promote and nurture knowledge creation as well as knowledge sharing. (Hofstede 2001: 227, Ford & Chan 2003, Ardichvili et al. 2006, Hauke 2006, Rivera-Vazquez et al. 2009.) Low IDV cultures communication is frequent and therefore organization members are constantly interacting with each other in the same time pursuing knowledge flows.

The third dimension uncertainty avoidance (UA) is concerned with the level of organization members’ tolerance or ambiguity about the future situations. This uncertainty is coped with utilizing technology, rules, religion and rituals. Technology provides short-term predictability in work environment and with the help of rules the internal uncertainty among organization members may be reduced. The idea of set of rules is to make the organization members behaviors more predictable. (Adler 1997: 51–52, Hofstede 2001: 29, 145–147, Lucas 2006.) The characteristic differences between low and high uncertainty avoidance in organization environment are presented in the table 3.

<table>
<thead>
<tr>
<th>Low UA</th>
<th>High UA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization members can mainly be trusted</td>
<td>Organization members have to be careful of whom to trust</td>
</tr>
<tr>
<td>Less resistance to changes and more willing to seek and develop new opportunities</td>
<td>More resistance to changes and avoid to seek and develop new ideas</td>
</tr>
<tr>
<td>Informal structures and open set of rules and directions are preferred</td>
<td>Formal structures, detailed and strict set of rules and directions are preferred</td>
</tr>
<tr>
<td>Organization members are flexible, open minded and cooperative</td>
<td>Organization members are formal, reserved and operate based on direct directions</td>
</tr>
<tr>
<td>Weak loyalty to employer and high job mobility</td>
<td>Strong loyalty to employer and lifetime employment</td>
</tr>
<tr>
<td>Relationship orientation</td>
<td>Task orientation</td>
</tr>
<tr>
<td>Nationalities: Singapore, Hong Kong, USA</td>
<td>Nationalities: Japan, Portugal, Greece</td>
</tr>
</tbody>
</table>

Low uncertainty avoidance is positively connected to collectivism by increasing relationship and communication between organization members because the norms, rules and regulations are more flexible and allowing. (Hofstede 2001: 227, Hauke 2006, Rivera-Vazquez et al. 2009.) High UA pursues a personal gain, which leads individuals to hinder knowledge sharing because of lack of trust.

*Masculinity/femininity* dimension is based on the duality of the sexes. In masculinity organizations the social gender roles are clearly distinct because men should focus on material success and present themselves as tough and assertive, whereas women are supposed to be modest, tender and concerned with the quality of life. In proportion, in femininity or low masculinity organizations the gender roles tend to overlap. (Hofstede 2001: 279, 297.) The characteristic differences between low and high masculinity in the organization are presented in the table 4. These characteristics may affect knowledge sharing either positively or negatively.

Table 4. Characteristic differences between low and high masculinity (Adapted from Hofstede 2001: 299, Hauke 2006, Lucas 2006.)

<table>
<thead>
<tr>
<th>Low MAS</th>
<th>High MAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship orientation</td>
<td>Self-orientated and egoistic</td>
</tr>
<tr>
<td>Emphasize on equality, solidarity</td>
<td>Emphasize on equity, mutual competition and performance</td>
</tr>
<tr>
<td>Individuals are cooperative and they focus to compromise and negotiate</td>
<td>Personal interests are preferred</td>
</tr>
</tbody>
</table>
Individuals are eager to learn new things, even without gaining anything from it. Individuals are willing to learn new things and share information if they gain something from it.
Managers are employees like others. Managers are culture heroes.

Masculinity cultures struggle in knowledge sharing because they have stronger competitive and aggressive atmosphere than femininity cultures. Masculinity organization environment pursues and values competitiveness, and therefore members’ want to keep the valuable knowledge to themselves as long as they have competitive advantage. Femininity dimension reflects more permissive values towards solidarity in the same time strongly pursuing collectivism mindset. Unlike masculinity, femininity is not promoting aggressions and self-achievement. (Hofstede 2001: 227, Ford & Chan 2003, Hauke 2006, Rivera-Vazquez et al. 2009.)

Long-term orientation (LTO) is the final of the cultural dimension, which was later introduced in Hofstede’s work. Long-term orientation reflects the perseverance of the future oriented rewards. In proportion, the short-term orientation is based on fostering the past and present traditions. (Hofstede 2001: 351–354) The characteristic differences between low and high long-term orientation in the organization environment, which may have impact on knowledge sharing process, have been presented in the table 5.

<table>
<thead>
<tr>
<th>Low LTO</th>
<th>High LTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status not major issue in relationships</td>
<td>Relationships ordered by status</td>
</tr>
<tr>
<td>Respect for traditions</td>
<td>Adaption of traditions to new circumstances</td>
</tr>
<tr>
<td>In business, short-term results</td>
<td>In business, building on relationships</td>
</tr>
<tr>
<td>Short-term virtues taught: social consumption</td>
<td>Long-term virtues taught: frugality, perseverance</td>
</tr>
</tbody>
</table>

If organization has a culture, which prefers long-term orientation, the organization members of this particular culture are more willing to work for the long-term goals and objectives (Hofstede 2001). Members of a long-term oriented culture would be more willing to participate in knowledge sharing because they do not need immediate results unlike in short-term orientation cultures. (Ford & Chan 2003.)
When reflecting Hofstede’s cultural dimensions to knowledge sharing in macro level, small power distance, collectivism, femininity, high uncertainty avoidance and long-term orientation have positive impact on knowledge flows. (Hofstede 2001, Hauke 2006, Rivera-Vazquez et al. 2009.)

5.2.2 Organizational culture

Organizational culture and culture itself have various definitions in literature (Alvesson 2002: 3). Double edged sword is Trefry’s (2006) metaphor for organizational culture because of its effects on numerous issues. Figure 8, presents the main components involved with organizational culture.

![Figure 8. The components of organizational culture.](image)

Organizational culture is reflected in values, norms, behaviors, objectives, desires, customary practices and organization’s mission and structure (De Long & Fahey
The ideas, meanings and beliefs of cultural nature guide the organization members’ way of thinking, feeling, valuing and acting (Alvesson 2002: 1, DeTienne et al. 2004, Alvesson & Sveningsson 2008: 37). Organization culture holds the organization together by everyday experiences and individuals’ actions as well as exerts the effects on how organizations manage knowledge (Alvesson 2002: 7, DeTienne et al. 2004). DeTienne et al. (2004: 27) and Lin et al. (2009: 36–38) state that organization culture is promoted by cooperative involvement, trust and incentives.

The core of the organizational culture is based on governing assumptions and consists of platitude beliefs about the nature of the organization and its relations to environment. It is also concerned with the nature of individuals’ relations to each other and their human nature (Alvesson 2002: 3–4, Alvesson & Sveningsson 2008: 37.) Organizational culture is often so rooted to the organization’s core values and operation that it is invisible to members as well as difficult to articulate. For this reason organization’s members way of thinking and operating may differ from the articulated mission and values. (McDermott & O’Dell 2001.) Organization members’ diversity acquires respect and promotion from organizational culture (Trefry 2006).

According to Ford and Chan (2003: 15), organizational culture operates as a connecting linkage between knowledge management processes and organization members’ nationalities and cultural backgrounds. Knowledge and culture are inseparable in organizational context and support with each other’s. Organizational culture effects on knowledge management and it determines how knowledge is created, shared, maintained and utilized. (De Long & Fahey 2000, McDermott & O’Dell 2001, Alvesson 2002: 2.) Davenport and Prusak (1998: 12–13) add that without a suitable organizational culture knowledge sharing is far more difficult and there is a high possibility of it not to occur at all.

An effective KM requires an organizational culture consisting of norms and practices, which promote the open communication and knowledge flows among organization members. Appropriate organizational culture for knowledge sharing consists of cooperative involvement, trust and incentives. (Ford & Chan 2003,
DeTienne et al. 2004.) According to McDermott and O’Dell (2001:77), in organizations with effective knowledge sharing culture the knowledge sharing between and among individuals should come naturally rather than forced act. Organization members should assume that knowledge sharing is right thing to do and expect the same attitude from other members.

Knowledge sharing is linked to organizational culture through four different frameworks. Firstly, culture shapes assumptions with the help of values and norms about which knowledge is from the organization’s point of view relevant and important. Secondly, culture mediates the relationship between different knowledge levels, organizational, individual and group. Thirdly, social interactions are based on cultural influence. Fourthly, culture shapes creation and adaption of new knowledge. (De Long & Fahey 2000.)

Knowledge management needs to be embedded with the organizational culture by making visible connections between knowledge sharing and organization’s vision, goals and core values. (McDermott & O’Dell 2001.) Knowledge management should nurture knowledge sharing by changing the organizational culture and business procedures to support knowledge flows within organizations (Bhatt 2001). In proportion, McDermott and O’Dell (2001: 77) and Riege (2005:22–23) disagree with Bhatt’s argument because in their opinion the organizational culture should not be changed to fit organizations KM approach. Instead McDermott and O’Dell (2001: 77) and Riege (2005: 22–23) argue that knowledge management should be built around the organizational culture, in order to create several opportunities for members to share knowledge.

Gupta and Govindarajan (2000b: 72) define six major factors affecting to organization culture, which they refer as social ecology. These are organization structure, information systems, reward systems, processes, members and leadership. In order to achieve an effective knowledge sharing these factors has to be emphasized in organizational culture (Al-Alawi et al. 2007). Organizational context may affect to effectiveness of knowledge sharing because it influences the dispositions and ability of the organizational subunits (Szulanski 2000).
Trust

Trust is difficult concept to define and it has several roles in knowledge sharing, both as an antecedent and consequence. Trust can influence knowledge flows both directly and indirectly through relationships and culture. (McNeish & Mann 2010.) Trust can be seen as enabler or disabler of knowledge management, depending on how individuals interact with each other’s. (Uden & Eardley 2008 via Naaranoja 2008: 268.) DeTienne et al. (2004: 32) add that trust determines the tier of organization member’s participation in communications and exchange of knowledge. The level of trust is positively related and influenced to amount of organization’s knowledge flows and knowledge sharing between its members (De Long & Fahey 2000, Lucas 2006, Riege 2005, Hauke 2006, Welch & Welch 2008). Therefore, Ling (2011: 333) describes trust as the pursuer of proactive knowledge sharing.

Trust is a key factor in strengthening and lubricating cooperation, interactions and relationships among individuals and in the contrary interactions reinforce the feelings of trust (DeTienne et al. 2004, Hauke 2006, Lin et al. 2009). Trust is like a verifier of the knowledge’s veracity in organizational relationships. (Nahapiet & Ghoshal 1998, McNeish & Mann 2010.) Davenport and Prusak (1998: 100) state that face-to-face contact is essential for knowledge sharing between and among individuals because it pursuits the absence of trust. Face-to-face interaction allows the individuals to bond in far deeper level and to build on confidence (DeTienne et al. 2004, Lucas 2005). Therefore, in virtual interactions establishing trust is difficult and may hoard knowledge sharing because communication happens through IT. (Pinjani & Palvia 2013).

Trust has a significant impact to the nature of knowledge, whether it is tacit or explicit. As previously defined, explicit knowledge is easily shared through documents, databases, intranets and written instructions. In addition, it can be understood apart from the source and independently verified, which is why the trust is less important in sharing explicit knowledge. In proportion, trust plays a key role on sharing tacit knowledge. (Welch & Welch 2008, McNeish & Mann 2010.) Welch and Welch (2008: 350) argue that especially in tacit knowledge transfer to succeed
the shared language is crucial because without it trustworthiness may suffer if the communication is lacking.

Individuals do not share their personal knowledge without having some kind of trusting feeling towards the receivers. In proportion, knowledge providers have to have a good reputation in order to achieve a trusting environment for knowledge sharing. (Ford & Chan 2003, Lucas 2006.) Trust issues are extremely important in highly competitive organizations’ environments because in these situations individuals are keener to hoard the knowledge if trust is not absence (Andrews & Delahaye 2000, Ling 2011). In competitive environment trust is not always a guarantee for knowledge flows because it creates prerequisites to flow of tacit knowledge. In proportion, informal networks pursue trust based KS, where individuals are willing to collaborate.

Interaction frequency and the level of bonding do not alone guarantee knowledge-based trust because successful knowledge sharing values and requires integrity as well as competence from the participants (DeTienne et al. 2004). Al-Alawi et al. (2007: 35) argue that organization members, who are more open, confident and social, may share their personal knowledge more easily than their conservative colleagues. Open individuals tend to be more eased in nature and therefore are more amenable to interactions with other individuals. In proportion, for conservative individuals the threshold to interact with other individuals may be too high because of the individual’s insecurities or reserved nature.

Organizations, which particularly have made downsizes, face problems in keeping the environment confidential (DeTienne et al. 2004). Trusting environment need to be rebuilt by nurturing norms and behavior practices, before the organization members could be assumed to share knowledge to the organization. (De Long & Fahey 2000, Ling 2011.) Downsizes affect to the organization’s general atmosphere and makes its members feel reserved towards the organization. For this reason, organization’s management needs to guide special attention in reinsuring its members of their value and significance as well as inform clearly why downsizes are made and who they are concerning.
There are three ways of establishing and reinforcing trusting environment in organization. Firstly, trust must be visible in a sense that organization members are aware of the value of knowledge sharing and its appreciation inside the organization (Lin 2011). Secondly, the feel of trust must be ubiquitous in the organization and thirdly, the trust must flow downward through organization. The top and middle managers define the norms and values with their own actions and in the same time feed the other organization members with an example. In other words if top managers pursue and value trust, the organization members would also try to respect and follow the company’s course. (Davenport & Prusak 1998: 34–35.)

Trust between organization members may be reinforced by arranging social events outdoor discussions occasionally (Al-Alawi et al. 2007). The more the individuals socialize and interact with each other formally or informally, the better they may share valuable knowledge. Trust is reinforced with interaction and communication but in multicultural setting it is challenging. In MNC individual’s trustworthiness may suffer from certain perceptions or expectations, which rise from multicultural environment (Welch & Welch 2008). According to Mäkelä et al. (2011: 4), individuals with similar national background possess more trustful interactions. Individuals from different nationalities and cultural backgrounds have their own ways of forming trustful relations. Cross-cultural differences may bring up certain preconceptions and therefore affect negatively on trusting environment.

Language

Language is crucial piece of the symbiosis of culture and knowledge sharing. It can act as mental model or reflect individual’s behavior or interactions. Even without the culture perspective it creates its own pressure to knowledge sharing activities. Fredriksson, Barner-Rasmussen & Piekkari 2006.) Language is usually treated as one section of the culture and therefore it often stays in the shades as un-researched (Henderson 2005).

Davenport and Prusak (1998: 98) argue that people can’t share knowledge if they don’t speak a common language because without it individuals will neither understand nor trust one another. Shared language increases the possibility of
individual interaction and facilitates their ability gain access others and their knowledge. On the other hand, diverse language keeps individuals apart and restricts their knowledge sharing. (Nahapiet & Ghoshal 1998.) In organization environment knowledge sharing is depended on how the individuals act and use their language competences (Welch & Welch 2008).

In literature there is commonly argued that a common language improves shared understanding, internal communication and information flow (Marschan-Piekkari, Welch & Welch 1999b, Welch et al. 2001). The presence of a shared language affects positively to the efficiency of communication and thereby determines how individuals interpret, understand and respond to knowledge (Zenger and Lawrence 1989). Organization members that are familiar with the commonly shared language are more likely to understand and use available knowledge in the organization (Triandis 1960) but in the same time the organization members that do not fully understand the spoken language miss out the knowledge flows. A shared language increases mutual understanding among organization members and thereby eases communication. Shared language affects positively to knowledge sharing by creating an encouraging environment (Cabrera et al. 2006).

Cross-lingual working environment sets challenges to individuals’ interactions and communication (Henderson 2005). Unfortunately, a common language will seldom change a multicultural organization completely monolingual because in global MNCs multilingual situations are an everyday phenomenon (Marschan-Piekkari et al. 1999b). A shared language is a challenge for the multicultural organizations and may not be the right solution to organizations knowledge sharing because it might destroy the benefits which language diversity creates. In addition, if the language diversity is not allowed in the organization, the people may lose their identity, which is best shown through their national language.

In multinational organizations the employees are operating in multiple languages for example corporate language, mature tongue and in subsidiaries either in home or host country’s language (Fredriksson et al. 2006). Common corporate language’s purpose is to ease the communication and provide favorable opportunities for knowledge flows as well as provide a sense of belonging. (Feely & Harzing 2003, Piekkari,
Vaara, Tienari & Säntti 2005, Welch & Welch 2008.) Feely and Harzing (2008: 45) add that corporate language also helps to diffuse the corporate culture.

Corporate language, which most commonly is English because it represents today’s global environment a neutral language. Corporate language is not usually the organization members’ ‘mother’ tongue, which is why it often creates tensions to their cultural background. (Piekkari et al. 2005, Welch & Welch 2008.) Marschan-Piekkari, Welch and Welch (1999a: 425–426) and Feely and Harzing (2003: 45) argue that frequent use of common corporate language do not guarantee flowing communication because the language differences have a big influence on its functionality. Above conflicts are based on the fact that although common corporate language is used in organization, the use of other languages is still continued. (Marschan-Piekkari et al. 1999a, Fredriksson et al. 2006.)

Corporate language eases the language diversity in organizations but its implementation process is multiphase and time consuming. Languages like Spanish and French are also used as common corporate language but English is dominating because of its presence in international businesses (Fredriksson et al. 2006). Feely and Harzing (2003: 43) argue that languages like Spanish, Arabic and Chinese are going to challenge English as a lingua franca. If individuals are unable to operate with corporate language it may create challenges in blending in to the organization and hinder the individuals’ value and competence. On the other hand, knowing the corporate language may create power advantage because individual may more easily bring forth his or her competence. (Piekkari et al. 2005.)

Cooperative involvement

The knowledge sharing between and among organization members occurs collectively and is in other words cooperative involvement. Culture of cooperative involvement in organization environment helps to define the right knowledge to right members at the right time. (DeTienne et al. 2004.) Knowledge management culture, which nurtures organization members’ interactions are beneficial from the knowledge sharing point of view (McDermott 1999).
Communities of practice are one of the key components in increasing cooperative involvement and knowledge flows (DeTienne et al. 2004). Organization members who share the same work culture are keener to communicate with each other’s and share knowledge effectively, than members who do not (Davenport & Prusak 1998: 100).

Culture effects on organizational interactions, which promote knowledge sharing and utilizing, in three different ways: vertical, horizontal and special behavior. Vertical interactions consist from communications, which happen between levels of the hierarchy. If vertical interaction occurs from down to top, the norms and practices should make managers accessible and approachable, which enables effective knowledge sharing. Vertical interactions and therefore knowledge sharing require cultures with norms and practices, which discourage open communication between hierarchy levels. (De Long & Fahey 2000.)

Interactions between horizontal levels occur between individuals at the same level. Culture shapes horizontal interactions in three ways: the amount of interactions, level of collaboration and collective responsibility, and desire to seek out knowledge. Norms and practices alongside information technology enable the interaction between employees as well as reduce the barriers to communication. From the knowledge sharing point of view it is important to notice the culture of teaching and dealing with mistakes, which may prove beneficial if managed correctly. (De Long & Fahey 2000.) In addition, organizations should support and teach their members to coordinate their interactions (Bhatt 2001), in order to reinforce KM processes.

**Incentives**

In knowledge sharing the unknown benefit increases fear. Organization members are reluctant to give up their personal knowledge if they are not sure about getting a benefit or reward for sharing valuable resources (Bartol & Srivastava 2002, Cabrera & Cabrera 2005). Individuals’ motivation to share personal knowledge usually increases with appropriate incentives, which can range from tangible to intangible or monetary to non-monetary (Hansen et al. 1999, Bartol & Srivastava 2002). Organizations need to pay attention to reward policies and programs, which would
support and value the contribution of the employees. (Bartol & Srivastava 2002, DeTienne et al. 2004, Lee & Ahn 2005.) For knowledge sharing to occur it is important to remember that organization members’ with various backgrounds tend to have different perceptions about rewards (Al-Alawi et al. 2007).

McDermott and O’Dell (2001: 81) claim that even though incentives do not necessarily increase motivation to share knowledge but it certainly makes the importance of knowledge sharing more visible. Bock and Kim (2002: 19) argue that expected rewards do not encourage individuals to share knowledge or commit to any action, but admit that they may trigger knowledge flows. Bock and Kim add that the reward may hoard knowledge sharing because it may be seen as bribe or it may create tensions between organization members. In proportion, Bartol and Srivastava (2002: 73) state that righteous reward system may support the trusting environment between individual and organization.

In organizations, where environment supports and foster contribution, the incentives are not considered as rewards because they represent something more meaningful. Rewards are usually short term and matched to a specific result, while incentives tend to be long term and focused on achieving a more comprehensive set of outcomes (Bukowitz & Williams 1999: 171). Yang & Wu (2008: 1154) argue that incentives have limited effects in encouraging knowledge sharing and in addition, a reward for each sharing action is more effective, than periodic fixed reward.

Reward policies and programs are unique in every organization because of the diverse cultures and members. Organizations need to personalize the reward policies based on their objectives as well as members’ needs and perceptions (Al-Alawi et al. 2007). For example, monetary rewards may increase the organization members’ input in actual sharing knowledge but it may also affect negatively to the quality and value of the shared knowledge (Lee & Ahn 2005). One way to reward employees is to recognize their input in organization’s intranet. Selection of the incentives in organizations should be based on understanding either the barriers of knowledge sharing or the most suitable motivator for the members. (DeTienne et al. 2004.) For communities of practice monetary rewards may be misspent because they value more
about developing their competence and achievements triggered by intrinsic motivation (Bartol & Srivastava 2002).

In effective reward programs the incentives are customized in organization’s different departments as well as individual level. In order to fulfill customized incentive program, the organization may represent a list of reward options from which each member may choose desired reward. Leadership is an important factor of KM and its incentive programs because the leaders are responsible for establishing the optimal rewards as well as performance levels. In addition, organization leaders act as good examples for sharing knowledge. (DeTienne et al. 2004.) Updating the reward system to match the current organizational environment and knowledge workers are managers’ responsibility (Lee & Ahn 2005).

Bartol and Srivastava (2002: 73) argue that team-based rewards are the efficient way to increase knowledge sharing among organization members because it requires individuals’ cooperation and interaction. In addition, Bartol and Srivastava add that company-wide incentives may encourage individuals to share knowledge especially if the reward is concerned with company’s stocks. This benefits the organization because this makes employees to commit and engage to the organization, and possibly pursues the time and efforts spend in knowledge sharing. (Bartol & Srivastava 2002.)
6 RESEARCH METHODOLOGY

The purpose of this chapter is to present the more detailed view of the research methodology. The practical implementation of the research is presented from the research method to data collection and data analysis. In the research method section implementation process of this literature review is described and research questions are presented. Data collection section follows step by step the selection of journals, databases and ultimately the articles to be analyzed. The chosen articles are presented in data analyze sector and categorized by its relevance to the literature review point of view.

6.1 Research method

This research is implemented as systematical literature review. A systematic literature review is often referred to as a systematic review. In systematic review previous researches relevant to a particular research question, or topic area, or phenomenon of interest are identified, evaluated and interpreted. (Kitchenham 2004, Keele 2007.) In other words systematical review can be seen as summary of previous researches and their contents. Fink (2005: 3) defines the literature review as “systematic, explicit and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practitioners.”

The research structure is based on Fink’s (2005: 3–5) model for systematical literature review, which consists of seven steps, see figure 9. The first phase is to determine the research question and the second step is about selecting the suitable bibliographic and article databases. In the third phase, the key search terms are determined based on the research topic and questions. Step four, the practical screening, is applied to outline the research results with for example, content, language or publication year. Phase five continuous the screening from the methodological point of view by valuating the quality of the researches. After step five the selected research material should be high quality. In the step six, the actual implementation of the systematical literature research begins. In the final step the results are synthesized.
Kitchenham’s (2004: 3) guideline for systematical reviews is similar to Fink’s (2003:4) model. Kitchenham’s method is based on three main stages, which are planning, conducting and reporting the review. This systematical review is conducted based on Fink’s guidelines.

First step according to Fink’s (2003:4) model is to determine the research question. This systematical literature review consists of three research questions.
• What are the main barriers of knowledge sharing in multicultural setting between individuals, and how do these barriers combined with cultural diversity affect knowledge sharing between individuals? How to overcome these barriers?

6.2 Data collection

This research is systematical literature review of knowledge sharing barriers of multicultural organization, and therefore empirical data is not personally collected. Empirical viewpoint is taken into account by using the empirical data from the previous researches selected to the systemic review. The second step in data collection is to select proper bibliographic and article databases. Firstly journals of business, management, cultural and ethnic studies are searched based on their ISI-impact factor, which must be over 1.000 in the 2013 ranking (144 journals). The journal list was crosschecked with the 25 of a global ranking of knowledge management and intellectual capital (KM/IC) academic journals (Serenko & Bontis 2013). The Learning Organization and Knowledge Management Research & Practise were added to the relevant journal list.

To identify the articles concerning KS and its barriers between individuals in multicultural organization, computer- assisted searches were conducted from variety of databases (ProQuest ABI Inform, Emerald, Academic Search Premier (EBSCO), Science Direct and Scopus). The third step was to choose the keywords used in database searches. Key words used in title or abstracts were “knowledge” or “information” or “competence” or “wisdom”, and “sharing” or “transfer” or “flow”, and “barrier” or “challenge” or “block” or “obstacle” or “inhibitor” or “stickiness” or “hoard” or “hinder”, and “MNC” or “MNE” or “diversity” or “multicultural” or “national” or “cross-cultural”. Multicultural setting is strongly linked to international organizations and therefore the search contains MNC and MNE keywords. However purpose of the source is still to observe the overall effect of multicultural setting on KS.

The fourth and fifth step concerns practical and methodological screening of applied searches by limiting the results by article content, publication year and language.
Unlike in the theoretical part of this literature review the data collection was focused only on articles and therefore no books and book chapters were selected. The publication year of the articles was determined from 1996 to 2015; starting year is based on Szulanski’s (1996) article about knowledge stickness, which is one of the first articles combining KS barriers and individuals behavior. Research needed to be full-length and written in English.

Article collecting process had three phases. In the phase process each journal, which were determined in the second step were searched with keywords determined in the step three. Content needed to deal with KS challenges or facilitators with cultural reflections. The meaning of the second face was to cut down irrelevant articles by reading them through and valuing whether it had any additional value to the literature review’s determined research questions. The third phase of the article selection was based on references of other relevant and cited articles, which were cross-checked. Some of these reference articles were not published in the searched journals but I did not found that an issue to the overall picture of literature review. Articles, which resourced small and medium-size enterprises (SMEs) were excluded from the literature review because of their insufficient globalization. The main focus was in MNCs because they have subunits in different countries and more global, dispersed and diverse workforce.

In the result of data collection 52 articles were discovered to the final analysis. 11 articles are published in Journal of Knowledge Management, four in International Business Review and three in Cross Cultural management, Journal of World Business. Other 31 articles are published in 26 various journals. In table 6 selected articles are listed based on journal and publication year.

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<tbody>
<tr>
<td>Advances in Development Human Resources</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Aslib Proceedings</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Chinese Management Studies</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Corporate Communications</td>
<td>2</td>
<td>2</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Creativity and Innovation Management</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Cross Cultural Management</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

As can be seen from the table 6, the research of KS and its barriers and facilitators in multicultural setting have boosted since 2003. I believe that the trend of published articles will continue the same phase with the effects of growing globalization and social media. The reviews published in recent year indicate that global dispersion (Pinjani & Palvia 2013, Raab et al. 2014, Haas & Cummings 2015), language diversity (Barner-Rasmussen, Ehmrooth, Koveshnikov & Mäkelä 2014, Pawar & Rogers 2014), national culture (Klitmøller & Lauring 2013, Boussebaa, Sturdy & Morgan 2014) and organizational cultural factors are the significant factors affecting KS now and in the future. Table 7 indicates the main resource fields of this literature review.

Table 7. Main relevancies occurred in the chosen articles.

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>National culture</td>
<td>22</td>
</tr>
<tr>
<td>Language diversity</td>
<td>22</td>
</tr>
</tbody>
</table>
Table 7 highly indicates the main factors affecting KS barriers in multicultural setting. Therefore this literature reviews theme is based on around these four dominant factors. It is obvious that in a multicultural setting the KS between individuals must be observed from the national culture point of view. Language diversity reflects from the nationality and affects to the interactions and communication between individuals. MNCs are growing globally and therefore the subsidiaries in different countries increase, which demands effective communication tools across borders.

6.3 Data analysis

The articles selected to the final systematic review are presented in table 8. To support the further research, the three types of information are collected to the table. In the first paragraph is presented the article’s author(s) and publication date. In the second paragraph is viewed the title of the article. In the third paragraph presents the significance and relevance from the research question point of view.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Article</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andersen &amp; Rasmussen (2004)</td>
<td>The role of language skills in corporate communication</td>
<td>Language</td>
</tr>
<tr>
<td>Ardichvili (2008)</td>
<td>Learning and Knowledge Sharing in Virtual Communities of Practice: Motivators, Barriers, and Enablers</td>
<td>Geographical dispersion Organizational culture</td>
</tr>
<tr>
<td>Ardichvili et al. (2003)</td>
<td>Motivation and barriers to participation in virtual knowledge-sharing communities of practice</td>
<td>Geographical dispersion</td>
</tr>
<tr>
<td>Ardichvili et al. (2006)</td>
<td>Cultural influences on knowledge sharing through online communities of practice</td>
<td>Language National culture values Organizational culture</td>
</tr>
<tr>
<td>Barner-Rasmussen et al. (2014)</td>
<td>Cultural and language skills as resources for boundary spanning within the MNC</td>
<td>Language</td>
</tr>
<tr>
<td>Bengoa et al. (2012)</td>
<td>A new organisational memory for cross-cultural knowledge management</td>
<td>Geographical dispersion National culture values</td>
</tr>
<tr>
<td>Bhagat et al. (2002)</td>
<td>Cultural variations in the cross-border transfer of organizational knowledge: An integrative framework</td>
<td>National culture values Organizational culture</td>
</tr>
<tr>
<td>Boussebaa et al. (2014)</td>
<td>Learning from the world? Horizontal knowledge flows and geopolitics in international consulting firms</td>
<td>Language Organizational culture</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Title</td>
<td>Location</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Chen et al. (2010)</td>
<td>The impact of national cultures on structured knowledge transfer</td>
<td></td>
</tr>
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<td>Chiu et al. (2006)</td>
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7 RESULTS AND ANALYSES

The recognition of knowledge sharing barriers plays an important role in the success of a knowledge management strategy in multicultural organization. MNCs work in a global, multidimensional environment and therefore have numerous KS barriers in three different levels, which are individual, intra- and inter-organizational level (Wilkesmann, Fischer & Wilkesmann 2009). This literature review focuses only in the main KS barriers between individuals in multicultural setting, see figure 10.

Figure 10. The main KS barriers between individuals multicultural organization.

KS barriers between individuals in multicultural setting are mixed combination of different factors, which are all highly related to each other. Challenges and changes
in one area are simultaneously affecting to another key factors’ activities and effectiveness. It is possible to decrease the KS problems in organization environment but it is evident that barriers are never entirely solved (Finestone & Snyman 2005).


Both international (geographic and national) and non-international (structural and demographic) differences create barriers to KS in MNCs (Riege 2005, Mäkelä et al. 2007, Mäkelä et al. 2012). It is hard to determine, which one influences more on KS activities without reflecting whether differences are position-based (geographic and
structural) or person-based (national or demographic). In multinational organization the position-based differences are greater barriers than person-based, especially geographic differences hoard KS between individuals. (Haas & Cummings 2015.) Researches of Ford and Chan (2003: 22) as well as Ardichvili et al. (2006: 104), support Haas and Cummings results by stating that organizational culture has greater impact on KS among organization members than national culture. Mäkelä et al. (2012: 10) emphasize the greater impact of structural diversity on KS over demographic diversity.

7.1 Geographical dispersion

Geographical dispersion has been identified as one of the main challenges of KS in MNCs (Staples & Webster 2008, Mäkelä et al. 2012, Raab et al. 2014). Geographic dispersion complicates KS in MNCs because individuals do not have the opportunity to communicate face-to-face or meet regularly in their everyday work (Lagerström & Andersson 2003, Zakaria et al. 2004, Riege 2005, Søndergaard et al. 2007, Ardichvili et al. 2003, Ardichvili 2008, Wilkesmann et al. 2009, Mäkelä et al. 2012, Klitmøller & Lauring 2013). Face-to-face communication significantly improves socialization between individuals as well as cross-cultural interaction because it allows the use of facial expressions and body language (Gupta & Govindarajan 2000b, Søndergaard et al. 2007, Qin et al. 2008). The influences of cultural and national diversities on KS are negative if individuals have not previously communicated face-to-face (Klitmøller & Lauring 2013).

Geographic distance is an essential part of virtual KS and without a seamless and synchronized IT individuals are not able to connect and interact (Gupta & Govindarajan 2000b, Zakaria et al. 2004, Finestone & Snyman 2005, Søndergaard et al. 2007, Ardichvili 2008, Bengoa Sánchez 2012, Mueller 2012). In virtual communications the required technology does not always guarantee the success of KS between individuals because of inadequate IT skills or lack of time to familiarize with the applied systems and networks. (Michailova & Minbaeva 2012).

The time zone differences create their own challenges to knowledge flows because for example, when individuals in Western Europe come to work in the morning, the
individuals in China are already finishing their workday. Individuals’ only options for communication may be via e-mail especially in cases, where worktimes do not overlap at all. The interaction between individuals happens always at least day’s delay, which makes KS activity especially tricky and ultimately leads to hoarding because individuals feel KS process too laborious. (Klitmøller & Lauring 2013.)

Geographically dispersed individuals lack the awareness or appreciation of each other’s knowledge mainly because they have relatively few opportunities to interact compared to individuals in the same geographic location (Haas & Cummings 2015). Even the functionally dispersed individuals may be unaware of other individuals’ competencies and are not able to locate the proper knowledge source. Individuals from collectivist and high uncertainty avoidance cultures may question the reliability of the virtually shared knowledge in communities because they assume knowledge cannot be publicly shared if it is relevant and true. In proportion, individuals from individualistic cultures do not hesitate to ask questions and utilize the knowledge received from virtual communities. (Li 2010.) Trust and uncertainty issues are challenged by geographical distances in inter-organizational level because individuals are not able to interact as intensively as in intra-organizational level (Lagerström & Andersson 2003, Zakaria et al. 2004, Riege 2005). Trust and social connections are significant especially in sharing tacit knowledge because they ensure the secure and respectful bond between individuals. (Ardichvili et al. 2003, Pinjani & Palvia 2013, Raab et al. 2014.)

Geographical distance is a larger barrier in MNCs than national diversity or demographic differences. Geographical distance may be more concerned with the question of the knowledge relevance than national diversity. (Haas & Cummings 2015.) Li (2010: 44) has similar observation as Haas and Gummings (2015) that individuals hoard knowledge because they do not want to cause confusion by providing a useless knowledge to other organization members from diverse cultures. If management does not clearly indicate what knowledge is valued and needs to be shared, individuals may make the decision themselves not to share. Organizational culture should in these occasions decrease the uncertainty avoidance proactively by providing appreciated KS environment with equivalent recognition.
Geographically dispersed individuals need organization’s full support in creating social networks and interactions across borders. Organization’s supporting attitude towards CoPs and VCoPs could ease the geographic dispersion as well as increase daily interactions (Ardichvili 2008, Li 2010). CoPs and VCoPs emphasize individuals to have open minds, social competence as well as flexibility, which global dispersion requires. (Lagerström & Andersson 2003.) Individuals in MNCs should organize regularly collaborative and interactive meetings to pursue the participation (Yang et al. 2012), which CoPs and VCoPs stand by. Especially in VCoPs regular video meetings are valuable, which allow individuals to communicate face-to-face and observe nonverbal communication, which is crucial factor in creating and strengthening interpersonal trust and diminishing uncertainty and misunderstandings. (Zakaria et al. 2004, Riege 2007, Ardichvili 2008.) According to Staples and Webster (2008: 633), geographical dispersion, lack of face-to-face communication and language diversity do not diminish the importance of KS in the eyes of organization members.

Geographical dispersion diminishes the phenomenon of in-group and out-group forming because individuals are not able to interact as closely and therefore are not able to develop strong relationships (Staples & Webster 2008). Individuals form collectivism cultures may experience feelings of isolation, when working in global virtual teams (Zakaria et al. 2004) because they are not familiar with the way of interactions. Collectivist cultures value modesty and some individuals may find it unacceptable to actively participate in virtual interactions (Ardichvili et al. 2006). Collectivist individuals are keener on close interactions and commonly face-to-face. Virtual cross-cultural interactions tend to be more low-context and without video meetings do not provide the same communication possibilities as face-to-face interactions.

7.2 Hoarding factors of cultural diversity

Many researches refer to language diversity but it usually is not in the key role in the research. Instead language diversity is seen as a by-product of cultural diversity, which is more commonly researched in organizations. (Henderson 2005.) According to Barner-Rasmussen et al. (2014: 890), although language and culture are related
and complement each other, they are two entirely different concepts. In addition, language and culture may exist alone without the other counterpart (Barner-Rasmussen et al. 2014).

Languages alone do not hinder the KS in multicultural setting because national cultural plays important part of individual’s cultural background. National culture values affect especially into individuals’ behaviors as well as KS actions. KS is far more difficult between individuals from diverse cultural context as compared to individuals from similar cultural context (Chen, Sun & McQuuen 2010).

7.2.1 Lingual diversity

Language diversity affects both sender’s and receiver’s experience of the interaction. In multicultural environment sender’s knowledge may be received differently because of the recipients’ diverse lingual skills, cultural background and expectations. Same applies to sender’s lacking language competencies. (Henderson 2005, King, Kruger & Pretorius 2007, Riege 2007.) Language barriers are based on the fact that diverse languages create difficulties in understanding fully the key knowledge shared between individuals (Szulanski 1996, Marschan-Piekkari et al. 1999b, Feely & Harzing 2003, Lagerström & Andersson 2003, Fredriksson et al. 2006, King et al. 2007, Harzing & Feely 2008, Klitmøller & Lauring 2013, Barner-Rasmussen et al. 2014, Boussebaa et al. 2014).

Limited language skills hinder individuals’ knowledge sharing to other individuals. They are not able share the knowledge in the form as they would like to. Therefore a lot of shared knowledge is lost in translation because individuals lack in vocabulary or the knowledge demands basic comprehension of specific context. (Marschan-Piekkari et al. 1999b, Feely & Harzing 2003, Ford & Chan 2003, Lagerström & Andersson 2003, Henderson 2005, Fredriksson et al. 2006, King et al. 2007, Mäkelä et al. 2007, Harzing & Feely 2008, Klitmøller & Lauring 2013, Barner-Rasmussen et al. 2014, Boussebaa et al. 2014.) If individuals have different competencies in the spoken language, misunderstandings may occur and KS is lacking (Pawar & Rogers 2014).
Individuals with lacking language skills and cultural understanding are in weaker position to participate in KS activities (Chen et al. 2010, Barner-Rasmussen et al. 2014). Marschan-Piekkari et al. (1999b: 427), Ardichvili et al. (2006: 101) and Li (2010: 44) state that inadequate language skills hinder the individual to attend KS situations, where s/he would be forced to use language other than his/her native language. Even though a person may be highly fluent with other languages that still does not guarantee the knowledge transfer because the spoken language will always lack certain nuances (Lagerström & Andersson 2003, Zakaria et al. 2004, Henderson 2005, Mäkelä et al. 2007, Klitmøller & Lauring 2013), credibility or trust compared to individuals who speak mother tongue (Feely & Harzing 2003, Harzing & Feely 2008, Chen et al. 2010). According to Barner-Rasmussen et al. (2014: 890) and Qin et al. (2008: 269), this dilemma is the consequence of the possible non-coexistence of culture and language because even though individual possess proper language skills, s/he may lack in understanding the culture and nationality, which guides and deepens the meaning of language and communication.

Tange and Lauring (2009: 224), Lauring and Selmer (2011: 338) as well as Pinjani and Palvia (2013: 145) disagree with language diversity’s negative effects and in proportion, suggest that if managed properly language diversity is beneficial to KS by expanding knowledge resources. Qin et al. (2008: 269) state that language is not a significant problem because individuals will manage to share knowledge without proper skills if individuals only are truly willing to pass on their information. If individuals are capable of knowledge flows without proper language competencies, it certainly requires a lot of managerial support as well as organization environment and culture has to be otherwise in order and functioning.

Language diversity barriers are in sync with communication challenges between individuals (Marschan-Piekkari et al. 1999b, Henderson 2005, Harzing & Feely 2008, Chen et al. 2010, Pinjani & Palvia 2013, Barner-Rasmussen et al. 2014). Language fluency does not guarantee the effective communication but it certainly eases and creates prerequisites for it (Andersen & Rasmussen 2004, Mäkelä et al. 2007). Recipients, who lack language competence, misinterpret sender’s message because of unfamiliar vocabulary, speed of speech or strong accent. Misunderstandings occur the other way round because sender’s communication and
pronouncing may be weak and defective. (Szulanski 1996, Zakaria et al. 2004, Henderson 2005, Riege 2005, King et al. 2007, Mäkelä et al. 2007, Chen et al. 2010.) One possible reason for misinterpretation is recipient’s unfamiliarity with the subject or sender simply does not have any additional knowledge to the subject (Hew & Hara 2007).

The fear of losing face is common in multilingual setting. Individuals may pretend to understand the shared knowledge but in reality they have not comprehended the shared information (Henderson 2005, Qin et al. 2008). Individuals may hoard knowledge because they believe their knowledge is not forth of sharing or it is not accurate enough, does not make a difference or makes them feel incompetent. In order to avoid these mixed feelings for sharing knowledge clear examples of valued knowledge should be provided by the organization. (Ardichvili et al. 2003, Riege 2005, King et al. 2007, Li 2010).

Individuals, who try to avoid losing face, are afraid to share knowledge in a fear of misunderstandings (Fredriksson et al. 2006, Harzing & Feely 2008, Qin et al. 2008, Wilkesmann et al. 2009, Klitmøller & Lauring 2013). In VCoPs the technology’s wideness may in some cultures causes uncertainty and fear of losing face (Ardichvili 2008, Li 2010) because the knowledge is shared globally and individuals around the world have access to it. Organization should emphasize and allow individuals to make mistakes and learn from them in order to get rid of fear of losing face and misunderstandings (Riege 2005, Chen et al. 2010, Mueller 2012).

Individuals from high-context cultures prefer media rich communications in the form of face-to-face conversations, phone calls and e-mails. Compared to low-context culture where individuals settle only for example, sending e-mails. Whether individuals are either from high- or low-context culture, it still does not exclude the fact that lack of variety in communication hoards KS. (Ardichvili et al. 2006.) KS between high- and low-context cultures is challenging because low-context culture individuals tend to keep the shared information condensed and high-context culture individuals thirst after extensive knowledge (Zakaria et al. 2004, Klitmøller & Lauring 2013). High-context culture individuals have challenges to establishing trust
and relationships with diverse organization members because they are more concerned with receiving masses of information (Qin et al. 2008).

High-context culture individuals are keener using e-mails in order to avoid language barriers as well as grammar understandings (Zakaria et al. 2004, Klitmøller & Lauring 2013) Although communicating only via e-mails is risky because in multicultural setting e-mails may be misunderstood because of lacking lingual competence. In addition, the written text does not provide the true meaning of the message as would the spoken one. Some individuals may find it difficult to articulate and share knowledge in written from, which forces into use of verbal communication. (Hew & Hara 2007, Pawar & Rogers 2014.)

According to Henderson (2005: 72) and Zakaria et al. (2004: 19), the ultimate challenge in MNC is to achieve a situation, where individuals in multicultural setting share the same interpretation. In MNCs daily verbal exchanges language and communication follow a more formal customs and have a certain routines as well as rules. If an individual deviates from these expectations, it may lead to mistrust and uncertainty. (Henderson 2005.) Second language user may lack the ability to communicate fluently, which may undermine trust and credibility (Harzing & Feely 2008). Language influences on the personal relationships between organization members and therefore communication is highly dependent on it (Andersen & Rasmussen 2004).

According to Lagerström and Andersson (2003: 91), to pass the language barrier difficulties individuals need to socialize and learn each other’s way of communication, especially in multicultural setting. In order to share knowledge in MNCs individuals should be able to communicate and interact with each other globally in some level (Lagerström & Andersson 2003). In some cultures the native members of the organization are the ones who do not utilize the benefits of the multicultural environment because they diminish the value of cultural diversity over professional competences (Lauring 2009). This may lead to situation in multicultural environment that native individuals isolate the non-native individuals from informal interactions, which leads to the fact that knowledge sharing value and richness becomes weak without diverse cultural viewpoints (Tange & Lauring 2009).
In many multinational organizations English is usually kept as lingua franca (Lagerström & Andersson 2003, Boussebaa et al. 2014) which should ease the cross-cultural communication (Riege 2007). In MNCs it is common that lingua franca does not necessary eliminate the use of other languages and communication problems because many organization members may lack the competence in the chosen language (Andersen & Rasmussen 2004, Fredriksson et al. 2006, Tange & Lauring 2009, Lauring & Selmer 2011). Reliance on a single language is a risk especially in a growing global environment because it may constrain the interactions as well as KS. (Feely & Harzing 2003.) Although individuals would use the same language in their KS, they are forced make adjustments. Individuals who are speaking lingua franca as their mother tongue may be more aggressive and simultaneously unconsciously hinder the evolvement and KS of the other individuals. (Henderson 2005.)

The use of English language in everyday communication does not solve the problems emerged from language diversity (Henderson 2005, Tange & Lauring 2009, Lauring & Selmer (2011). This is partly result of the fact that other languages like Spanish, Arabic and Chinese are challenging the English as lingua franca and diminishing its appearance in MNCs as well as in IT arena (Feely & Harzing 2003). Zakaria et al. (2004: 19) agree that the global use of English as business language has led to the situation were its use is more diverse as well as less standardized, which creates uncertainty among individuals.

According to Mäkelä et al. (2007: 10), Li (2010: 44) as well as Lauring and Selmer (2011: 336), the use of English language in daily communications is not seen as sensible action in individual’s eyes who use it as second language but its utilization in daily interactions has positive effect on knowledge flows. Chiu et al. (2006: 1883) agree with Lauring and Selmer (2011) that shared language between individuals may affect to the quality of the knowledge shared but does not guarantee the increase of actual sharing quantities. Possible reason for this is the fact that when culturally or lingual diverse individuals apply their second language skills communicating with others, they need to concentrate only on the working assignments and not dialoguing. Therefore, organization’s multicultural environment so to speak prohibits the natural socialization between individuals. (Lauring 2009, Tange & Lauring 2009.)
Even though organization has corporate language the organization’s as well as individuals’ native languages are still significant in internal communication. (Marschan-Piekkari et al. 1999b, Andersen & Rasmussen 2004, Tange & Lauring 2009, Boussebaa et al. 2014). Individuals’ prefer to share knowledge with individuals who speak the same language because they hesitate to use second language. This is mainly occurred because of linguistic inadequacy and personal insecurity about applying second language. Previous statements usually concern only native organization members because non-native organization members are more accustomed to share knowledge with second language. (Tange & Lauring 2009.) Individuals who do not understand or speak this organization’s common language feel outsiders and may be excluded for some knowledge shared (Marschan-Piekkari et al. 1999b). Even though individual would possess appropriate language skills and have a good understanding of national culture of the MNCs, s/he may still be seen as an outsider because of his/her national background (Barner-Rasmussen et al. 2014).

In MNCs sub-groups based on diverse languages, relationships or similarities tend to form intentionally (Ford & Chan 2003) for example, German clusters may include individuals from Germany, Italy and Switzerland. Knowledge is not shared outside this language-based sub-group. (Harzing & Feely 2008, Tange & Lauring 2009, Peltokorpi & Clausen 2014.) The clustering may escalate if individuals lack the motivation to learn or improve language skills (Ford and Chan 2003, Peltokorpi and Clausen 2014). According to King et al. (2007: 289), individuals who operate in mother tongue tend to utilize the shared knowledge less than those who have learned and used other languages in daily bases. Marschan-Piekkari et al. (1999b: 431) and Fredriksson et al. (2006: 420) state that language competence is strongly linked to individuals KS behavior as well as power status. In many cases the individual members of the multicultural organization speak only their mother tongue, which hinders KS because the use of native language increases its symbolic power (Marschan-Piekkari et al. 1999b, Andersen & Rasmussen 2004, Peltokorpi & Clausen 2014).

In MNCs individuals may use intermediaries such as expatriates or translators to overcome language barriers concerning diverse languages (Feely & Harzing 2003, Andersen & Rasmussen 2004, Pawar & Rogers 2014). Intermediaries may open up
communications and pass on knowledge to individuals outside the in-groups. (Marschan-Piekkari et al. 1999b, Hutchings & Michailova 2004, Klitmøller & Lauring 2013, Barner-Rasmussen et al. 2014, Peltokorpi & Clausen 2014.) On the other hand, intermediaries may have difficulties in assimilating the context of the information, which is why the communication and actual meaning may be lacking (Feely & Harzing 2003).

Language diversity correlates with organization’s size and globalization (Feely & Harzing 2003). Feely and Harzing (2003: 41) and Harzing and Feely (2008: 56) add that language diversity creates uncertainty and suspicion as well as increases trustworthiness. Open communication and its frequency may improve uncertainties and pursue effective KS (King et al. 2007, Riege 2007). According to Lauring and Selmer (2011: 336), communication frequency does improve and strengthen the relationships between individual but does not guarantee the success in knowledge flows. Management’s role in supporting KS activities is crucial because they need to enhance the members to share their knowledge in daily activities (Ford & Chan 2003). Lauring and Selmer (2011: 336) suggest that organization management should apply only common language in daily management activities, which benefits the KS among organization members.

7.2.2 National culture diversities

Cultural individualism and collectivism affect KS behavior inside MNCs (Ford & Chan 2003, Lucas 2006, Wolfe & Loraas 2008, Chen et al. 2010, Sandhu & Ching 2014). The research of Sandhu and Ching (2014: 17) corroborates the research results of Ford and Chan (2003: 13) and Wolfe and Loraas (2008: 67) that collectivism culture nurtures KS as in individualism culture it is common to hoard the knowledge. Individualism and collectivism has to be viewed through either horizontal or vertical social relationship perspective in order to fully understand the meaning of effects on individual’s behavior (Triandis & Gelfand 1998, Bhagat et al. 2002, Sandhu & Ching 2014).

Vertical collectivist (VC) culture (high PD) and horizontal collectivist (HC) culture (low PD) have both positive impacts in KS because they nurture common goals,
establish strong relationships and teamwork, which are all based on dynamic communication (Triandis & Gelfand 1998, Zakaria et al. 2004, Hew & Hara 2007, Chen et al. 2010, Sandhu & Ching 2014). However, cultures which characteristically have high PD are more restrict and passive in KS activities because knowledge flows tend to move more top-down direction, which restricts the versatility of interactions (Riege 2005, Wilkesmann et al. 2009). In proportion, in low PD cultures knowledge flows more freely without certain direction and communication is open. (Bhagat et al. 2002, Ford & Chan 2003, Qin et al. 2008, Rivera-Vazquez et al. 2009, Chen et al. 2010, Bengoa Sánchez et al. 2012, Yang et al. 2012.)

Horizontal individualism (HI) and collectivism (HC) tend to cherish organizational KS between individuals. Horizontal form of communication supports more on organizational knowledge creation and vertical form supports tacit knowledge flows (Wolfe & Loraas 2008). VC and HC differ from the family integrity and interdependence from each other’s. VC values family integrity and is related to authoritarianism and respectively HC is interdependent of individuals on similar to oneself. (Triandis & Gelfand 1998.) KS is most efficient between similar cultural pattern, for example VI to VI and HC to HC. (Bhagat et al. 2002.)

In HC cultures individuals see themselves as being similar to others, which are usually based on organizational status (Triandis & Gelfand 1998, Bhagat et al. 2002). Interpersonal similarity has both positive and negative impact to KS. The barriers in MNC affected by interpersonal similarity are the uneven knowledge flows as well as variety and richness of the shared knowledge. (Mäkelä et al. 2007, Staples & Webster 2008.) KS is more frequent and fluent between interpersonal similar individuals than those who are not. Especially cultural and functional similarities are affecting to knowledge flows positively. (Mäkelä et al. 2012, Haas & Cummings 2015.)

individuals may be eager to learn but not to share. Ardichvili et al. (2006: 102), King et al. (2007: 291) and Li (2010: 43), disagree by stating that individuals may willingly share knowledge to assert themselves and improve future opportunities as well as feel motivated to share and educate others. Competing environment may also encourage people to depend on each other’s knowledge in order to complete their assignments faster (Riege 2005). VI has negative impact on KS, which mainly stems from the fact that individual strives personal goals and believes organization environment is unequal (Triandis & Gelfand 1998, Bhagat et al. 2002, Zakaria et al. 2004, Lucas 2006, Qin et al. 2008, Wolfe & Loraas 2008, Chen et al. 2010, Bengoa Sánchez et al. 2012, Boussebaa et al. 2014, Sandhu and Ching 2014).

Tacit knowledge is seen easier to be transferred in collectivist cultures, which cherish strong relationships (Chen et al. 2010) and in proportion, explicit knowledge in individualistic. Individualistic individuals are capable of operating independently without direct rules or norms, which is why explicit knowledge is sufficient for them to perform in their daily activities. Collectivist culture person is more comfortable, when someone else tells them what to do and especially if information is shared face-to-face with similar individuals. (Bhagat et al. 2002.) According to Qin et al. (2008: 270), there has been seen a change in Chinese individuals behavior because they have become more aggressive as well as pursue more personal benefits than team goals. In addition, the fear of losing face is diminishing because of westernization of the culture especially among younger generation (Ardichvili et al. 2006, Wilkesmann et al. 2009). Ford and Chan (2003: 22) have made similar observations in their research by stating that the younger generation of Japanese has experienced Americanization.

Unlike findings in the research of Ford and Chan (2003: 13), Sandhu and Ching (2014: 17) and Wolfe and Loraas (2008: 67) state that HI does not have a significant influence on KS although the slightly positive impact is reflected from the horizontal values, which support equality among individuals, group values as well as self-reliance. Positive influence of HI is based on individual’s team-based competitiveness rather than individual competitiveness, which would hoard KS. HI culture individuals are not concerned about hierarchy and status which sustains the

The KS between individual from high PD and collectivism culture and low PD and individualistic culture is highly unlikely because the communication and interactions may be one-sided and lack certain dynamics. This is evident especially if the knowledge provider comes from low PD culture and recipient from high PD culture. (Yang et al. 2012.) Individuals from individualistic cultures do not necessary notice to share knowledge because they are accustomed to share information when others ask for it. In addition, in individualistic culture the shared knowledge is low key, concise and lacks in explanation richness. KS sharing depth and richness may lack because individuals from individualistic cultures share information only as bullet-point. (Bhagat et al. 2002, Chen et al. 2010, Klitmøller & Lauring 2013.) Organization members from individualistic cultures may seem cold and selfish to collectivist members and in proportion, collectivist individuals seem needy and demanding from the individualists eyes. On more positive note individualistic cultures tend to promote more direct and informal communication, which supports interactions and ultimate knowledge flows. (Zakaria et al. 2004.)

Ford and Chan (2003: 13) note the negative impact of masculinity to the knowledge flows. In proportion, research results of Sandhu and Ching (2014: 17) support the minor benefit of masculinity in KS between individuals, which may indicate that individuals want to project themselves as well as separate themselves by sharing knowledge. Feminist environment pursues cooperation which promotes trust and KS (Rivera-Vazquez et al. 2009). Uncertainty avoidance affects KS of different nationalities (Li 2010). Low uncertainty avoidance allows individuals more freely to communicate without strict rules (Rivera-Vazquez et al. 2009).

Cultural heterogeneity and homogeneity is one of the KS barriers affecting individuals’ interactions and sharing habits based on nationality (Mäkelä et al. 2007, Chen et al. 2010). Individuals with similar national or cultural background which pursue collectivism form informal sub-groups inside organization unintentionally, which tend to hinder knowledge sharing outside these homogeneous clusters (Marschan-Piekkari et al. 1999b, Bhagat et al. 2002, Ford & Chan 2003, Hutchings
Some individuals may belong to different clusters in the same time and share knowledge with culturally diverse individuals (Marschan-Piekkari et al. 1999b, Mäkelä et al. 2007). In proportion, cross-cultural interactions which are often formal and business related create barriers to effective KS. (Ford & Chan 2003.) HI cultures may lead to individual's social isolation from different sub-groups because individual’s attitude is based on self-reliance (Triandis & Gelfand 1998). According to Raab et al. (2014: 39), managerial support may enhance KS if sub-groups contain individual from different cultural isolation but on a downside managerial involvement may reassert the negative effect of sub-groups by valuing these sub-groups differently.

National stereotypes invoke certain assumptions and prejudices from individual’s behavior, which may lead to misunderstandings and mistrust (Henderson 2005, Harzing & Feely 2008, Pawar & Rogers 2014, Raab et al. 2014). According to Li (2010: 44), individuals from different nationalities have diverse thinking logics, which are hindering KS, for example individuals from collectivism cultures tend to overthink and question the patterns of KS as in individualism cultures the situation is reversed.

Individuals need to understand and respect the cultural differences and adapt in order to share knowledge (Zakaria et al. 2004, Finestone & Snyman 2005, Pinjani & Palvia 2013, Pawar & Rogers 2014) because those cultural differences are not going to disappear (Boussebaa et al. 2014). Utilizing KM culture is long and multiphase process which requires changes in organization members’ behaviors and attitudes (Finestone & Snyman 2005, Pawar & Rogers 2014). Organizations need to provide enough support and opportunities for members to connect seamlessly across organization. CoPs and VCoPs allow members to interact freely and create a feeling of belonging and equality as well as help to develop common goals and understanding. The idea behind CoP and VCoP is to create a community, where individuals may learn from each other’s instead of compete. This reduces the
organizational hierarchy barriers by two-way knowledge flows. (Lucas & Ogilvie 2006, Yang et al. 2012.)

7.3 Organizational culture challenges

Structural or functional diversity is a major hindering factor of KS especially if it is combined with national diversity (Mäkelä et al. 2012) but its influence diminishes over time and deep-level diversities starts to take the control. Deep-level diversities have a negative effect on KS if individuals have been sharing knowledge for longer period of time. They have learned to recognize the idiosyncratic attitudes and values of different individuals, which hinder the interactions. (Pinjani & Palvia 2013.) Individuals from different functions have difficulties in sharing knowledge because they share and interpret knowledge based on functional terminology, practice and experience point of view. Lack of collaboration between individuals from different functions leads to unawareness of other individuals’ knowledge bases as well as hinders the appreciation of the other functions knowledge (Mäkelä et al. 2012). (Haas & Cummings 2015.)

Ardichvili et al. (2006: 102), Mäkelä et al. (2012: 10) and Barner-Rasmussen et al. (2014: 898) do not acknowledge the demographical diversities such as status, age or gender as an important KS barrier because it is evident that these diversities are equally distributed across organization. In proportion, Finestone and Snyman (2005: 140), Riege (2005: 24) as well as Michailova and Minbaeva (2012: 67) acknowledge the status inequality barrier in KS because it may prevent employees to hoard knowledge if they feel they have more competence than their superiors and are afraid of not getting appropriate recognition. King et al. (2007: 290) acknowledge the gender inequality problem in developing countries, which reflects to KS activities by lowering the participation of women organization members, whose efforts and competence may be questioned. Lauring (2009: 391) have observed gender inequality also in western cultures although organizations in these cultures have gender policies as well as equal opportunity policies.

The perception of organization culture which pursues KS diminishes for those individuals, who have been working in the same organization and function for
several years. This may be due to the fact that individual, who possess more experiences may acknowledge the competitive advantage of their personal knowledge against their colleagues. Individuals, who have worked for a decade with same assignments feel job security and confident, which allows them to share wisdom. Younger individuals’ KS behavior may be positively influenced by incentives because they are driven by money and ambition. (King et al. 2007.) Members who are relatively new to the organization may hoard knowledge because they feel that they do not yet have the right to share their thoughts and expertise to others (Ardichvili et al. 2003). Riege (2007: 55) recognizes the barrier of different experience levels on KS and suggest individuals to socialize.

Trust is seen as a facilitator of KS between diverse individuals (Finestone & Snyman 2005, Mueller 2012, Pawar & Rogers 2014). According to Mueller (2012: 440), feeling of trust hinders the individual competition as well as fear of losing knowledge ownership. In public sector, virtual communities and MNC environment trust is not seen as a major barrier to KS (Chiu et al. 2006). Similar conclusions may be made from the knowledge ownership point of view because the thought of losing the power and status provided by the possessed knowledge is not seen as critical obstacle. (Ling et al. 2009, Sandhu et al. 2011.) To prevent the fear of stolen intellectual property, management’s resources are needed to reassure the benefits and values of KS (Riege 2005). Individual’s sharing should be publicly acknowledged, especially in front of other colleagues, which may boost their sharing motivation (Riege 2007).

Individuals tend to hoard knowledge because they are afraid that other individual may get the recognition instead (Boussebaa et al. 2014) or if the sharer gets nothing in return (Wilkesmann et al. 2009, Pawar & Rogers 2014). KS activities can be encouraged by providing appropriate recognition or rewards (Lucas & Ogilvie 2006, Sandhu et al. 2011), which are linked to the performance appraisal (Riege 2007, Ling et al. 2009). Gupta and Govindarajan (2000b: 79) recommend group-based incentives, which allow individuals to share for common good. Managements support and clear picture as well as guidelines are important in cultivating KS and encourage individuals to share knowledge in their daily activities for common goal purposes (Finestone & Snyman 2005, Riege 2005, Søndergaard et al. 2007, Rivera-Vazquez et al. 2009). To be able to motivate individuals to share their know-how in
shorter time frame, rewarding systems are evident. In proportion, in the long run KS should not only be linked to daily interactions but also into the organization culture. (Lucas & Ogilvie 2006, Ling et al. 2009.)

According to Mueller (2012: 442), organization does not need incentive system in enhancing members to share knowledge because the positive experiences of KS motivate them intrinsically. Hew and Hara (2007: 2318) is on common ground with Muller that individual’s motivation is based on personal gain which means that individual shares knowledge in order to achieve more reputation as well as increase competence. Individual’s reputation has influence on KS willingness if individuals possess a similar reputation the KS is more fluent (Lucas & Ogilvie 2006).

Low organizational commitment hinders KS because individuals lack the motivation to acquire knowledge as well as contribute personal know-how to organizations advance (Yang et al. 2012). One significant barrier in KS is lack of opportunities to formal and informal interactions between individuals (Riege 2005). Although organization is able to provide an environment suitable for interactions, it increases knowledge sharing but does not affect to its quality (Chiu, Hsu & Wang 2006). Trust and individual motivation may act as “double-edged swords” either facilitator or barrier to KS. Individuals’ motivation to either share or hoard knowledge is determined the way knowledge is captured and treated by the organization and its systems. Tacit knowledge is highly personal and therefore many individuals may feel reluctant to share it straight via technology and instead would rather share it face-to-face. In addition, sharing of tacit knowledge requires dynamic discussions between individuals (Yang et al. 2012) as well as richer context and media (Gupta & Govindarajan 2000b, Bhagat et al. 2002). Trust is something that builds over time and strengthens through interactions. (Søndergaard et al. 2007, Mueller 2012.) Knowledge senders hoard knowledge if they do not trust the recipient and vice versa recipient does not utilize the received information entirely without trust (Riege 2005, Pawar & Rogers 2014).

In MNCs the global business environment emphasizes the importance of IT tools because many day-to-day activities are dependent on them and technology may act as motivator for individuals (Hew & Hara 2007). The implementation of such IT is
time consuming process especially in multicultural setting (Finestone & Snyman 2005). Individuals may hoard KS because they lack competence in utilizing the IT tools provided by the organizations or simply just lack the motivation to learn to use them. Without training individuals may not even know, which opportunities IT can bring to KS activities. (Riege 2005, Riege 2007, Li 2010.)

Effective knowledge sharing saves time and resources in MNCs because individuals do not need to “reinvent the wheel“. Organizations should control or organize the shared knowledge because otherwise the systems will overload with information, which may hamper the knowledge seekers acquiring. (Riege 2007, Boussebaa et al. 2014.) Same goes for organization members because in MNCs the turnover of the individuals is high, there needs to be effective ways to cherish KS in dynamic environments (Mueller 2012).

According to Lauring (2009: 390), in multicultural organization where organizational culture and management pursue the local culture, the KS across cross-cultural borders is challenging because local culture may be too powerful to tackle in daily practices and individuals’ behaviors. Native organization members may bring down the creation of multicultural environment by not valuing the diversity and making any adjustments. In some nationalities, even though management would support social interactions in work and after work, the native organization members do not utilize the benefit of strengthening relationships and socializing, which discourages cultural diversity as well as hinders multicultural knowledge sharing. (Lauring 2009.)
8 CONCLUSIONS

In this chapter the theoretical conclusions and contribution as well as managerial conclusion are presented. The validity and reliability of the research are determined and limitations concerning the research are defined. In addition, I have presented further study suggestions.

8.1 Theoretical conclusions and contribution

The purpose of this research was to add more understanding from the researched phenomena by answering to three questions: *What are the main barriers of knowledge sharing in multicultural setting between individuals, and how do these barriers combined with cultural diversity affect knowledge sharing between individuals?* In MNCs the global business environment leads to geographical dispersion (Pinjani & Palvia 2013, Haas & Cummings 2015), which may escalate knowledge sharing barriers caused by cultural differences. The main barriers are reflected from the cultural differences; especially language (Marschan-Piekkari et al. 1999b, Harzing & Feely 2008) and national diversity (Wolfe & Loraas 2008, Sandhu & Ching 2014, Haas & Cummings 2015) are significant barriers.

Geographical dispersion hinders face-to-face communication between individuals which is in multicultural interaction more preferable because of non-verbal communication. Time zone differences create their own challenges to knowledge flows between dispersed individuals because they may not have the opportunity to exchange information live. Individuals are forced to use e-mails to connect with other individuals, which limit the richness of the communication as well as KS. Geographically dispersed individuals need to utilize the information technology (IT) tools in order to share knowledge. IT tools themselves hoard knowledge; if they are not equal in MNC or the organization members lack the competence to apply them.

Variation in the lingual competences between individuals is the main reason why knowledge flows are a challenge in multicultural organization. Language diversities hinder the knowledge transfer between sender and receiver as well as lead to misunderstandings. Knowledge sharing is not certain even though a person may
fluent with other languages because the spoken language will always lack certain nuances and understanding of the national culture values (Lagerström & Andersson 2003, Zakaria et al. 2004, Henderson 2005).

National culture differences are affecting significantly to KS between individuals. Individuals from national culture, which values high power distance, individualism, high uncertainty avoidance, short-term orientation and masculinity, are more reluctant to share knowledge. Individualism and masculinity culture individual is more concerned about the personal gain and objectives. S/he hoards the possessed knowledge because it represents a source of power. Individuals who value high power distance and have high uncertainty avoidance are behaving according to strict rules and communicate only individuals with similar status, which inhibits the KS. Individuals with similar national or cultural background tend to form homogeneous clusters, which tend to hinder knowledge sharing outside these informal sub-groups. National culture values may in the near future diminish because the global business environment thrives for westernization. Collectivism cultures individuals have got more influences on individualism cultures and therefore emphasize more on personal objectives. (Qin 2008.)

The significance of structural diversity over national diversity was surprising. Functional diversity in multicultural organization hinders KS because individuals from different functions interpret knowledge from different point of view. Each function has its own terminologies, practices and experiences, which changes the individual’s KS interpretation and behavior. Lack of cooperation between individuals from different functions leads to unawareness of other individuals’ knowledge bases and hoards the appreciation of the information of other function members.

*How to overcome these barriers?* Geographical dispersion requires a lot more support from IT systems, which need to be synchronized throughout the organization. In addition, managements support in providing sufficient environment and time resources for exchanging know-how globally are equally as important. VCoPs and regular video meetings are crucial for geographically dispersed individuals because these allow individuals to communicate face-to-face and observe nonverbal communication.
Misunderstandings, uncertainty and in-group clusters caused by the language diversity can be hindered by strengthening the organization members’ language competence as well allowing them to make lingual mistakes. Homogenous lingual clusters and thin communication may be prevented by providing and presenting organization members with alternative groups and networks to share knowledge (Tange & Lauring 2009). In order to overcome national culture diversities organization members need to understand and respect the cultural differences as well as make adjustments (Zakaria et al. 2004, Finestone & Snyman 2005, Pinjani & Palvia 2013, Pawar & Rogers 2014) because cultural diversities are evident.

Utilizing KM culture is long and multiphase process which requires changes in organization members’ behaviors and attitudes (Finestone & Snyman 2005, Pawar & Rogers 2014). Organizations need to provide enough support and opportunities for members to connect seamlessly across organization. CoPs and VCoPs allow members to interact freely and create a feeling of belonging and equality as well as help to develop common goals and understanding. The idea behind CoP and VCoP is to create a community, where individuals may learn from each other’s instead of compete. This reduces the organizational hierarchy barriers by two-way knowledge flows. (Lucas & Ogilvie 2006, Yang et al. 2012.)

Organization need to pursue the collaboration between different departments in order to overcome the barriers caused by functional diversity. The knowledge flows are important between different functions because the shared knowledge may prevent “reinventing the wheel” and therefore save valuable time. Individuals should appreciate the knowledge received from other function individual and trust its reliability. Organizations should provide information of who knows what, in order the organization members to be aware of relevant knowledge sources.

8.2 Managerial conclusions

According to Finestone and Snyman (2005: 136), KS barriers can be decreased but they are never solved entirely because of cultural differences. Therefore it is crucial in global MNCs to adjust the KM fit to various organizational cultures and overall
company objectives in order to secure the KS seamless efficiency (Riege 2005). In organization’s knowledge management processes the language diversity should be observed with its own priority and not a byproduct of nationality because in today’s multicultural organization individuals may speak different language although they would have the same nationality. Another significant observation about language is that although individual may speak fluently certain language, the communication will always lack certain nuances and deeper meaning because the individual lack the competence from that specific nationality and its traditions. Even the expatriates may not achieve to get the deeper meaning of the national cultures although they live in the country several years.

Organization should pursue more informal opportunities to individuals to interact. CoPs are valuable option for decreasing the homogenous nation or lingual in-groups as well as individual isolation (Tange & Lauring 2009). CoPs do not force individuals to compete each other’s rather they allow members to interact freely as well as create a feeling of belonging and equality. CoPs help to develop common goals and understanding. In MNCs the value of VCoPs are growing with the globalization and therefore organization should provide the sufficient and seamless IT tools for individuals to interact with each other’s.

8.3 Validity and reliability

This research was implemented as systematical literature review and therefore own empirical data was not utilized. In this research the selection of the articles has been crucial for the validity and reliability. To assure the validity and reliability of the research the data collections was systematical and contain specific steps. The sources were done multiple ways in order to find all the relevant articles related to the research problem. The selected articles are peer reviewed and published in academic journals. The selected articles divide evenly to the defined time frame. In the data analysis the impact and relevance of each article to the literature review is presented.

The absence of own empirical material of the subject diminishes the reliability because the selected articles do not entirely answer to the overall research question. Each of the articles gives answers to some area of the research question. Another
factor affecting to validity and reliability is the article selection process. In the selection process, the selected and rejected articles were read through only one person, which affects to the evaluation of each article. The amount of articles have limited the process and read time of each article, which may have caused to reject an article, which could have brought value to the research.

8.4 Limitations and further study suggestions

The absence of own empirical data is a limitation to this research. The insufficient amount of relevant articles answering to the overall research problem limits this systematical literature review. In this systematical literature review one researcher was a limitation because the amount of collected data and its analysis.

Further study suggestion is to firstly study the knowledge sharing barriers between individuals in multicultural setting. Secondly the growing interest globalization is seen from the collected articles because the researches of virtual teams have increased and more importance is given to ICT. One possible research could be made from the knowledge sharing barriers between globally dispersed individuals from the cultural point of view. Another interesting field of study may be to research the global westernization and its effects on national cultural values as well as individual’s behavior patterns on KS.
9 REFERENCES


