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INTERNATIONAL KNOWLEDGE TRANSFERS FROM FINLAND TO ESTONIA

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ABSTRACT

Knowledge transfer is one crucial element in the process of knowledge management. The competitiveness of multinational companies is based on how efficiently and effectively they are able to transfer knowledge to their foreign units. Choosing the right mechanism for the knowledge transfer is essential in order to successfully complete the transfer process. This research is aimed at exploring the mechanisms multinational companies use in transferring knowledge to their foreign affiliates, as well as the factors explaining their use, the types of knowledge transferred and the challenges encountered.

The frame of reference of this research consists of literature in knowledge management: definitions of knowledge, how to create, manage and transfer it and with what kind of mechanisms, as well as the impediments in knowledge transfers. The chosen research method was qualitative. The data was collected by conducting 10 semi-structured telephone interviews with Finnish managers of a domestic parent company, who either were on an assignment in their Estonian subsidiary at the time of the interview or had been on one shortly before it.

The main findings of the research indicate that people-based mechanisms were experienced to be the most effective methods in transferring knowledge from Finland to Estonia. Moreover, it was discovered that former socialism in Estonia still affects people's behavior and attitudes and that was considered a challenge from a knowledge transfer perspective. The most challenges were experienced to reside in greater power distance and in people's attitudes to change, as well as in their motivation to receive and absorb new knowledge. However, major differences were discovered between the old generation and the young generation of the Estonian employees – between those who have worked in the Soviet organizations and those who have not.

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1. INTRODUCTION

1.1. Background of research

*"The basic economic resource...is no longer capital, nor natural resources..., nor labour....**It is and will be knowledge**."* (Drucker 1993: 7, emphasis in original)

Research indicates that knowledge forms the basis of an organization's competitive advantage (see for example Argote & Ingram 2000; De Long & Fahey 2000; Davenport & Prusak 1998: 13). This knowledge-based view of the firm states that dealing with the knowledge assets – creating, organizing and using them – with the purpose of deploying them to create value, is the core activity of organizations. Their performance is determined by how well those activities are managed. Knowledge management is a relevant subject for organizations (De Long & Fahey 2000; Grant 2005: 173).

Technology has become increasingly important for firms. However, it cannot be a sustainable competitive advantage for organizations because technology as such will disappear over time. The same technology is basically available to everyone and competitors can easily copy most products and services. Material assets decrease in value when they are used. The value of knowledge assets, on the other hand, increases when ideas are shared. That develops new ideas and new viewpoints. A knowledge advantage is a sustainable advantage (Davenport & Prusak 1998: 16-17). The superiority of knowledge as a resource stems from the fact that knowledge is difficult to imitate and socially complex (Alavi & Leidner 2001). Nevertheless, in order to utilize the advantage, knowledge must be transferred and shared with other members in the organization.

Transferring knowledge within and across organizations is one important part of knowledge management. The globalization of today's business, as well as the increasingly intensifying competition among multinational and global organizations, has

resulted in a dramatic increase in cross-border transactions of organizations. This makes the need for effective cross-border transfer of knowledge greater than ever (Bhagat, Kedia, Harveston & Triandis 2002). Multinational companies (MNCs) must be able to replicate the knowledge in their foreign units. Effective knowledge transfers are the most important factor for successful, foreign business operations (Conn & Yip 1997) and the primary reason why MNCs exist (Gupta and Govindarajan 2000 a). However, this has proven to be a difficult task for the companies to achieve (see for example Husted & Michailova 2002; Goh 2002).

Knowledge management and knowledge transfer have been quite extensively studied by researchers. However, the focus has been primarily on the facilitators and inhibitors of knowledge transfer: factors that influence the process. Fewer studies have been conducted on the mechanisms of knowledge transfer. Furthermore, little is known about the appropriateness of using a particular mechanism: what determines which mechanism is the most appropriate to use and which is not (Jasimuddin, Connell & Klein 2005 b). This research aims to fill this gap, concentrating on the mechanisms for transferring knowledge across borders. In section 1.2., the purpose of research will be elaborated.

Existing research in the field of knowledge transfer include for example the following studies: Riusala and Suutari (2004) have examined the role of expatriates in knowledge transfer processes, as well as the challenges - the so called internal stickiness factors - they encounter within those processes. Smale (2008 a, b), for one, has focused on the global HRM integration. He has explored the mechanisms organizations deploy in integrating their global HRM practices and the factors that influence their use (Smale 2008 a). Kim, Park and Prescott (2003) have studied global integration in MNCs by classifying integration modes to centralization-based, formalization-based, information-based and people-based mechanisms. Jasimuddin (2008) has examined the soft mechanisms and hard mechanisms and those two mechanisms combined when transferring knowledge within a global corporation. This study concentrates on inter-unit knowledge transfers across borders with information technology (IT)-based mechanisms and people-based mechanisms and on the advantages and disadvantages they bring to knowledge transfers.

1.2. Objectives and context of research

This research is aimed at exploring knowledge transfers in MNCs, from the headquarters into the foreign units.

The objectives of research are:

- *What type of knowledge is transferred from a Finnish parent company to its foreign subsidiary and how has it changed over time?*
- *What kinds of mechanisms are used to transfer such knowledge and why – what factors affect the decision to use a certain type of mechanism?*
- *What kinds of challenges are encountered in knowledge transfers?*

The context of research is Estonia. This research will examine knowledge transfers from a Finnish parent company to its Estonian subsidiary, in particular. Time continuum is also a part of research: how things have evolved with time. It will be examined what the situation was like concerning the type of knowledge that needed to be transferred when the business operations had only started in Estonia, compared to how the situation is today. Predictions for the future transfer needs will also be explored.

Estonia is an interesting context for research because the country is the most advanced economy among the Central and Eastern European (CEE) countries. The transformation process has been rapid there. Nevertheless, it can be expected that half a century of Soviet occupation has left its mark on the Estonian business practices.

Estonia was a part of the Soviet economic system for nearly five decades, until early 1990s (Varblane 2001: preface). Since that time, the foreign direct investment (FDI) inflow into Estonia has been increasing, until recent years. Finland is the most important business partner of Estonia both in export and in import. When it comes to FDI, Finland is the second biggest investor after Sweden. Most of the FDI (80%) has been concentrated in Tallinn (Finpro 2008). Some of the reasons why Estonia has been an attractive investment target are the well-developed infrastructure in the area around

Tallinn, relatively skilled but also cheap labor force and low production costs (Varblane 2001: 20). Liberal trade policy and the intensive growth of the economy have also affected positively the investment decisions (Finpro 2008). However, some of these initial investment motives are no longer relevant today. Wages and other expenses have increased so that the foreign investments initially aimed at saving costs are being replaced by other motives, such as market-seeking and strategic-assets-seeking motives (Varblane 2001: 27). Furthermore, also in Estonia there is nowadays a shortage of skilled labor force in many areas (Finpro 2008).

Estonia has been the easiest market to do business among the Baltic countries and the Finnish companies have succeeded fairly well in establishing their business operations there. Finnish organizations have a positive image of Estonia as a business environment. The Estonian legislation and other official institutions are on the same level with the Western one. Nevertheless, there are differences compared to the Finnish legislation because the Estonian legislation model to some extent originates from Germany and other Central European countries. (Compiler Trade Portal 2004.)

There are still differences among unofficial practices but that gap is diminishing due to Estonia being a member of the European Union and to the foreign investments through which the Western corporate culture is being brought to the country. Practices are changing as the older generation retires. The people under 30 years of age have no experience of working in the Soviet organizations and that also brings changes to the Estonian corporate world. (Compiler Trade Portal 2004.)

1.3. Structure of research

The structure of research will be formed in the following way: The theory part will be composed of chapters 2 and 3. In the second chapter, concepts related to the definitions of knowledge are described first. In the ending part, knowledge management and its different functions are discussed - how knowledge is handled in the organization. The third part focuses on the knowledge transfer and on the mechanisms with which it takes place, describing the process of knowledge transfer, the factors that affect the use of a certain mechanism and the challenges related to knowledge transfers. The frame of reference is built up around these themes of the knowledge management literature. The main focus is on the knowledge transfer mechanisms. The fourth chapter presents the methodology, how the research is conducted, and evaluates the validity of study. The fifth chapter presents the empirical findings. In the last chapter, conclusions are made, as well as the contribution of the study is indicated and suggestions for further research are given.

2. ORGANIZATIONAL KNOWLEDGE

In this chapter, the goal is to clarify the complex concept of knowledge, how it can be defined, and in what form it exists in the organization. Subtitles 2.1. - 2.3. will deal with these issues. Subtitle 2.4. will handle the knowledge management and focus on how knowledge is generated, as well as how it is stored and retrieved in the organization.

Knowledge is essential for organizations. Employees and machines are valuable primarily because they possess knowledge (Grant 2005: 173). Knowledge exists at three levels: individual, group and organizational levels and is embedded in various parts in the organization (De Long & Fahey 2000). Knowledge lies in tools and technology, in tasks and their interrelationships, and in the various networks. However, the biggest part of knowledge is embedded in individual members of the organization. Human interactions are recognized as the primary source of knowledge and knowledge transfer (Argote & Ingram 2000).

Knowledge is valuable because it is close to action. Knowledge should be evaluated by the actions to which it leads (Davenport & Prusak 1998: 6). Knowledge is also a very complex resource: many types of knowledge are scarce, in most situations it is difficult to transfer and complex forms of knowledge may be difficult to replicate (Grant 2005: 173). Knowledge can be viewed from several perspectives. For example, Zack (1999) views knowledge both as an *object*; something to be stored and manipulated, and as a *process*; in which expertise is applied. According to him, organizations should manage knowledge as both, in practice.

The following subtitle deals with the definition and categorization of knowledge. Knowledge is not an easy term to define. One way in trying to define it, is to specify what it is and what it is not.

2.1. Data, information and knowledge

One of the most well-known distinctions in literature is made between data, information and knowledge (Hislop 2005: 15). These terms often cause confusion because they resemble one another. Although they are related to each other, they do not share the same meaning. Nonetheless, in order to succeed in the work of knowledge, it is important to be able to separate the terms and understand how to get from one to another (Davenport & Prusak 1998: 1).

Data is the smallest component of knowledge (Grönroos 2003: 116). It can be described as observations or facts out of context, in an organizational setting often called 'structured records of transactions', which simply tell what has occurred without giving any meaning (Davenport & Prusak 1998: 2; Zack 1999). Data can be mere words or raw numbers derived from an observation or measurement (Hislop 2005: 15). Data always needs interpretation. Know-how, which can be obtained with training or some other form of learning, is the key in converting data into information (Grönroos 2003: 116). Data itself is not very useful. However, for organizations it is vital because data creates information (Davenport & Prusak 1998: 3).

Information, for one, has a relevance or purpose. Adding meaning - the intellectual input - to the data, makes it information. When data is placed in some meaningful context it converts into information. It has a sender and a receiver. Information is meant to affect the behavior and the opinions of the receiver. It has a shape by being organized to some purpose (Davenport & Prusak 1998: 3-4; Zack 1999). Although one can interpret information, it does not have any value unless one knows how to apply it in use. Information must be further refined to knowledge, which is information applicable in a certain context or function (Grönroos 2003: 116).

Definition for **knowledge** is not as easily explained. It is much broader, deeper and richer concept than data or information. According to Davenport and Prusak (1998: 5), knowledge combines framed experience, values, contextual information and expert

insight, which can create a framework for evaluating and incorporating new experiences and information. Knowledge is created and applied in the minds of people. According to Alavi and Leidner (2001), once information is processed in the mind of individuals, it is converted to knowledge. In organizations, knowledge resides in print-out forms, such as documents but also in the practices, routines, processes and norms of an organization. The intuitiveness of knowledge, the fact that it cannot always be written down or explained in words, makes it hard to understand (Davenport & Prusak 1998: 5-6).

DATA	INFORMATION	KNOWLEDGE
= facts, raw numbers	= Interpreted data	= Personalized information
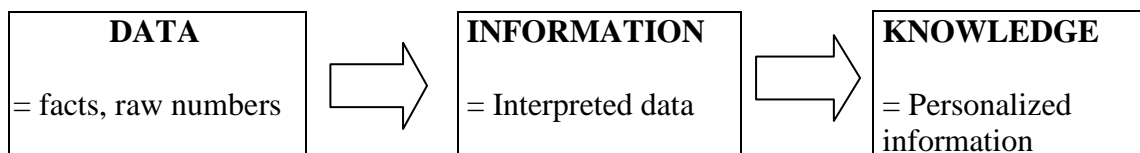
Figure 1. Conversion of data to knowledge (Alavi & Leidner 2001).

2.2.   Different types of knowledge

There is often confusion about knowledge and knowledge management, which is due to the fact that it is often unrecognized that there are at least three different types of knowledge: human knowledge, social knowledge and structured knowledge. All three types of knowledge should be taken into account to improve an organization's ability to create, share and use knowledge. (De Long & Fahey 2000.)

Human knowledge exists in individuals and usually combines both tacit and explicit knowledge. It is embedded in skills, expertise and experience of individuals – what they know or know how to do. Examples of human knowledge are the ability to play the piano and to speak foreign languages. **Social knowledge** resides only in the relationships between people and within groups. It is social knowledge when a team,

such as a group of scientists, possesses knowledge that is more valuable when shared among all the members in the team than owned by its individual members. It is mostly tacit in nature and is developed only by people working together. Social knowledge leads to a good collaboration between group members. **Structured knowledge** is explicit and rule-based and can be found in systems, processes, tools and routines of an organization. Whereas the two previous types of knowledge need a human knower, structured knowledge can exist independently. Structured knowledge is an organizational resource. (De Long & Fahey 2000.)

2.3. Dimensions of knowledge

Garud and Nayyar (1994) classify knowledge along three dimensions, which are simple versus complex, independent versus systemic and explicit versus tacit. The first dimension, **simple versus complex**, refers to the amount of information that is needed to accurately and completely go through with the transfer process. Complex knowledge causes more uncertainties and requires more factual information, thus making its transfer more difficult. To transfer simple knowledge, requires less information and is therefore easier and faster to convey compared to complex knowledge. The second dimension, **independent versus systemic**, deals with the extent to which knowledge is embedded in the organizational context. Independent knowledge can be described by itself. In order to describe systemic knowledge, however, it must be done in relation with the knowledge residing in the transferring organization, thus making its transfer more problematic.

The third dimension, **explicit versus tacit**, deals with how articulated or implicit knowledge is. Knowledge can be either explicit or tacit in nature. The distinction was originally made by Polanyi (1966). Explicit knowledge lies in formal rules, tools, processes and sets of instructions. It is systematic and can be easily codified, communicated and articulated in formal language (De Long & Fahey 2000; Pan & Scarbrough 1999). It is easily understandable and does not require any explanation or

interpretation. Typical explicit knowledge is almost anything that can be read in printed material, books, magazines or on the computer screen (Grönroos 2003: 117). There are several advantages of using explicit knowledge in an organizational setting. Explicit knowledge can exist independently, without a human owner. If an employee leaves the company, the knowledge will not disappear with him. Explicit knowledge is also easy to communicate and share with others and it can be protected through Intellectual Property Rights. The disadvantage of explicit knowledge is that storing that kind of knowledge usually requires huge and costly investments in information technology. It is also fairly easy for competitors to copy it (Jasimuddin, Klein & Connell 2005 a).

Tacit knowledge is not available as text. It is something we know but which is very difficult or even impossible to write down or explain in words to another person (De Long & Fahey 2000; Pan & Scarbrough 1999). Polanyi (1966: 4) states: "We can know more than we can tell". Tacit knowledge is intuitive and is gained by doing, through experience and practice. It cannot be studied in manuals. It is difficult to transfer and to utilize in a company. Tacit knowledge is not easily recognized, even its owner may not be aware of its existence (Viitala 2005: 132, 201). An example of tacit knowledge is surgery skills. It is not possible to become a surgery by only reading text books but those skills must be learned by doing and practicing. The benefit of tacit organizational knowledge is that hardly any investments in information technology are needed. Tacit knowledge is quite safe from attempts of copying and it generates plenty of new innovation in the company. One disadvantage is that tacit knowledge is difficult to store and communicate to others. In addition, tacit knowledge is easily lost if the person possessing it leaves the company and no measures have been taken to retain the knowledge in the organization. Furthermore, tacit knowledge is not protected by Intellectual Property Rights (Jasimuddin, Klein & Connell 2005 a).

Generally, within a company there lies plenty of tacit knowledge. The challenge is how to articulate that knowledge to others (Viitala 2005: 194). According to one research, 80 percent of the knowledge that needs to be transferred is tacit in nature, thus improving the processes to disseminate it is a relevant issue for organizations (O'Dell & Grayson 1998). The main difference between explicit and tacit knowledge lies precisely in their

transferability. Explicit knowledge can be transferred through communication regardless of time, space or people involved. Tacit knowledge can only be learned through its application, which makes its transfer between people a slow and a costly process with no guarantee of the outcome (Grant 2005: 173).

The difference between tacit and explicit knowledge has an important strategic implication. If explicit knowledge can be transferred easily, it is not wise to use it as the company's sustainable competitive advantage because it can easily leak out to competitors. The distinction between tacit and explicit knowledge has also implications to the firm's decision making strategy. The effortless transfer of explicit knowledge enables a centralized decision making in the organization. However, if the knowledge is tacit, decision making should be located with the people where the knowledge lies. For example, if sales people have tacit knowledge about their customers and how to do business with them, they should be allowed to make decisions independently. The decision making authority should not be restricted only to the sales managers who do not possess that relevant knowledge for successful business operations. (Grant 2005: 173-174.)

Table 1. Characteristics of explicit and tacit knowledge (Jasimuddin, Klein & Connell 2005 a).

Characteristic	Tacit knowledge	Explicit knowledge
Content	Non-codified	Codified
Articulation	Difficult	Easy
Location	Human brains	Computers, artefacts
Communication	Difficult	Easy
Media	Face-to-face contact	Information technology
Storage	Difficult	Easy
Strategy	Personalization	Impersonalization
Ownership	Organization and its members	Organization

2.4. Knowledge management

Leading management and organization theorists argue that to remain competitive, an organization must be able to "efficiently and effectively create, locate, capture, and share knowledge and expertise" (Zack 1999). The processes and practices through which companies generate value from knowledge are referred to as knowledge management. Originally, it encompassed information technology: how to store, analyze and disseminate information. Subsequent developments have focused less on data and more on organizational learning (Grant 2005: 172).

Knowledge management can be divided into two main dimensions: effective control of knowledge and the processes to increase, distribute and absorb it (Viitala 2005: 32). Nowadays, when the lifespan of new knowledge is shorter than before, effective knowledge management must excel in two tasks: creating and acquiring new knowledge, as well as sharing and mobilizing it across the organization. Constant generation of new knowledge is essential if a firm wants to remain competitive and the knowledge must be made accessible for everyone in order to prevent people from making the same mistakes twice or reinventing the old solutions (Gupta & Govindarajan

2000 b).

According to Zack (1999), in order for the knowledge-intensive organization to grow and to become efficient, the dispersed knowledge must be combined and shared. Yet, this is not well understood in organizations. Zack (1999) states that tacit knowledge, in particular, is poorly recognized outside of its birthplace. The biggest challenge for organizations is to spread and share internal knowledge. Organizations are complex entities. The knowledge that is needed and used is very hard to describe. Often the knowledge, which is embedded in organizations is fractured, hard to locate and to transfer, random, dispersed and poorly - if at all - utilized. The problem is that in many cases it is not defined what kind of knowledge is needed and used in organizations. This results in a random acquisition, processing and storing of knowledge (Viitala 2005: 199).

The purpose of knowledge management is to enhance organizational performance by explicitly designing and implementing tools, processes, systems, structures, and cultures to improve the creation, sharing and use of all three types of knowledge that are critical for the decision making. In order to effectively enhance an organization's capacity to manage knowledge, managers must take into consideration all three types of knowledge: human, - social- and structured knowledge. (De Long & Fahey 2000.)

The different views of knowledge, briefly discussed in chapter 2, affect the perceptions on knowledge management, as well. If knowledge is viewed as an object, then knowledge management should focus on building and managing knowledge reservoirs. If knowledge is considered as a process, then the focus should shift to knowledge flows and the processes to create, share and disseminate it. (Alavi & Leidner 2001.)

Knowledge management is a process involving different activities. It varies in terms of the number of activities and how they are referred to. For example Gupta and Govindarajan (2000 b) propose the elements of the knowledge transfer process to be knowledge creation, knowledge acquisition, knowledge retention, knowledge identification, knowledge outflow, knowledge transmission and knowledge inflow (See table 2).

Table 2. Elements of the knowledge management process (Gupta & Govindarajan 2000 b).

Knowledge creation	= learning by doing
Knowledge acquisition	= internalizing external knowledge
Knowledge retention	= minimizing the loss of proprietary knowledge
Knowledge identification	= identifying knowledge-sharing opportunities
Knowledge outflow	= willingness to share knowledge
Knowledge transmission	= effective and efficient transmission channels for transferring knowledge
Knowledge inflow	= willingness to receive knowledge and use it

The process can be said to include the minimum of four activities: creating, storing/retrieving, transferring and applying knowledge (Alavi & Leidner 2001). Knowledge generation and knowledge storing/retrieving will be discussed next in the following paragraphs and knowledge transfer in chapter 3.

2.4.1. Knowledge generation

There are two methods for an organization to generate knowledge: *creation of knowledge*, which means that knowledge is created internally within the company and *acquisition of knowledge*, which means that existing knowledge is identified and absorbed outside of the organization (Grant 2005: 176-177).

Davenport and Prusak (1998) propose six different ways how an organization can obtain knowledge. The first method is **acquisition**: The most straight-forward way to acquire knowledge is to buy it. A company can either buy an organization, which has valuable knowledge or hire knowledgeable employees. The second method is **rental**: Knowledge

can be leased or rented from outside of the company. Renting knowledge usually means renting the knowledge source, such as a consultant hired for a project. This normally includes some degree of knowledge transfer to the client. The third method is **dedicated resources**: One way to generate knowledge is to dedicate resources for it, such as R&D units, of which the only purpose is to create new knowledge for the company. The fourth method is **fusion**: The purpose of fusion is to bring together people with varying opinions to work on a problem and forcing them to think of a common solution. The fifth method is **adaptation**: The changing external and internal environment forces businesses to adapt. If firms do not respond to this need of change, they will fail to keep up with the business development. Finally, the sixth method is **knowledge networking**: Knowledge can also be generated through informal networks within companies. When group of people with the same interests come together and share their thoughts and ideas with each other, over time, that generates new knowledge in the organization. (Davenport & Prusak 1998: 52-66.)

The most well-known theories of knowledge creation in literature are the ones of Nonaka. He emphasizes the role of a dynamic company not only as an information processer but also as a knowledge creator (Nonaka 1994). There was a time when Japanese companies were very successful in the business world. According to Nonaka and Takeuchi (1995: 3), their successfulness stemmed from their unique capabilities of creating and managing new knowledge. New knowledge always begins with an individual. Organizations cannot create knowledge without the social interaction of its members. The dynamic model of knowledge creation is based on the assumption that human knowledge is created and expanded through social interaction between tacit and explicit knowledge. This interaction is called the knowledge conversion (Nonaka & Takeuchi 1995: 61). Existing knowledge can be converted to new knowledge through four patterns (Nonaka 1994).

Nonaka's and Takeuchi's (1995) model of knowledge conversion is called the SECI-model. In this model, organizational knowledge creation involves a continuous interaction between tacit and explicit knowledge. It forms a growing spiral as knowledge moves through individual, group and organizational levels. The four modes

of knowledge conversion are: socialization, externalization, internalization and combination.

In the **socialization** mode, tacit knowledge converts into new tacit knowledge. People learn tacit knowledge directly from others by observing, imitating and practicing without using language. The newly acquired skills become part of their prior tacit knowledge base. However, socialization is not a very effective form of knowledge creation because the knowledge does not convert to explicit and thus disseminating it across the organization is very difficult. (Nonaka & Takeuchi 1995: 62-64, 70.)

Combination refers to converting explicit knowledge into new explicit knowledge. This happens when a person gathers pieces of existing explicit knowledge and combines them into a new whole by sorting, adding and re-categorizing. People combine knowledge through documents, meetings and telephone conversations, for example. The combination mode neither increases the organization's existing knowledge base. (Nonaka & Takeuchi 1995: 67-68, 70.)

The last two modes of knowledge creation involve the interaction between tacit and explicit knowledge. That is when the company's knowledge base increases. **Externalization** refers to converting tacit knowledge into new explicit knowledge. Tacit knowledge is changed into a form, which can be easily shared with other members in the organization. This mode is also called 'articulation' because externalizing tacit knowledge occurs by talking to others, by articulating. (Nonaka & Takeuchi 1995: 64-67.)

Internalization refers to converting explicit knowledge into tacit knowledge. It is related to "learning by doing". When new knowledge is disseminated across the organization, people start using it and at the same time begin to internalize it. It means that the new knowledge deepens and broadens their understanding and increases their existing tacit knowledge base by becoming valuable assets. However, in order for the organizational knowledge creation to occur, the tacit knowledge developed at the individual level must be socialized with other members, which starts a new spiral of

knowledge creation. (Nonaka & Takeuchi 1995: 69-70.)

Closely related to the SECI-model is the concept of "ba", which translates into "place". It means a shared space, either physical, mental or a combination of them, where people interact with each other. It is a common space for creating knowledge. What separates ba from ordinary human interference, is its association with knowledge creation. Ba is a platform for encouraging individual and/or collective knowledge. Knowledge resides in ba where it is acquired through a person's own experiences or reflections of them from other people. (Nonaka & Konno 1998.)

There are four types of ba, which correspond to the four stages in the SECI model: 1) originating ba, 2) interacting ba, 3) cyber ba, and 4) exercising ba. **Originating ba** encompasses the socialization stage of knowledge creation and is the first ba from which the process begins. It is the place where people share feelings, emotions and experiences through face-to-face contact. **Interacting ba** represents the externalization process. It is the place where tacit knowledge is converted to explicit knowledge through dialogue and collaboration between people. **Cyber ba** refers to the virtual space of interaction and it represents the combination stage. Combination of explicit knowledge works best in collaborative environments where information technology is utilized. The **exercising ba** supports the internalization stage by enhancing the conversion of explicit knowledge to tacit. The exercising ba is a place where people can continuously and actively learn. Ultimately, an organization's knowledge base will be formed as the knowledge generated in each ba is shared. Understanding the different characteristics of ba can enhance an organization's knowledge creation process. (Nonaka & Konno 1998.)

Tacit knowledge   to   Explicit knowledge

face-to-face

Tacit knowledge

from

Explicit knowledge

Socialization	**Externalization**
Originating ba	Interacting ba
Internalization	**Combination**
Exercising ba	Cyber ba

peer-to-pear

group-to-group

On-the-site
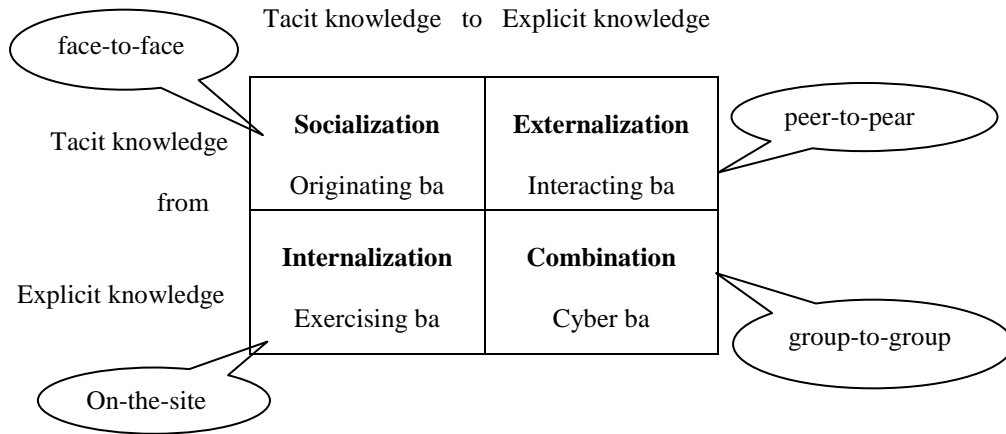
Figure 2. Modes of the knowledge creation and the four characteristics of ba (Nonaka 1994; Nonaka & Konno 1998).

2.4.2.   Knowledge storing and retrieval

After the organization has obtained knowledge, either by creating it inside or by acquiring it from outside, the knowledge must be stored and organized in order to be effectively utilized in the organization. At this stage, information technology plays a key role by creating databases for storing the knowledge as well as for accessing it (Grant 2005: 176). In order to gain the maximum benefit from knowledge, an organization should carefully define their knowledge stocks in terms of their:

- important concepts, categorizations and definitions
- rationale for the functions and end results;
- situations and intentions for developing and applying knowledge
- links between different knowledge types (Viitala 2005: 204).

The storage, organization and retrieval of knowledge are also referred as the organizational memory (Stein and Zwass 1995). It can be found in various forms in an organization. Organizational memory resides in written documentation, structured information stored in electronic databases, codified human knowledge stored in expert

systems, documented organizational procedures and processes, as well as tacit knowledge acquired by individuals and networks of individuals (Alavi & Leidner 2001).

In literature, there is a distinction made between individual and organizational memory. Person's observations, experiences and actions form the individual memory (Alavi & Leidner 2001). Stein and Zwass (1995) define an organizational memory, also known as a collective memory, as the means by which knowledge from the past influences present organizational activities. Organizational memory includes components, such as organizational culture, information archives, physical work setting and production processes and work procedures. Advanced computer technology and sophisticated retrieval techniques, such as query languages and multimedia databases can be efficient tools in improving the organizational memory by speeding up the access to it (Alavi & Leidner 2001).

Technology is considered essential in knowledge storing. Yet, its relative importance depends on the knowledge management strategy the organization decides to pursue. According to Hansen, Nohria and Tierney (1999), an organization can use either codification or personalization to manage their knowledge. In codification, knowledge is codified and stored in databases, making IT indispensable in organizations adopting the codification approach. The goal is to reuse existing knowledge with high-quality and reliable information systems. These systems should be comparable to an electronic library where there is a variety of different documents, as well as search engines with which to find and use the needed documents. Big investments in IT are necessary in order to keep the systems up to date. In personalization, knowledge is shared through direct, personal contact. The purpose of IT in this case is not to store knowledge but to facilitate the communication of knowledge between people. Instead of developing IT systems, the goal is to develop social networks that connect people so that tacit knowledge can be more easily shared. Therefore, heavy investments in IT are not required in organizations adopting the personalization approach. (Hansen et al. 1999.)

In this second chapter, the concept of knowledge was defined, as well as the different types and dimensions of it were described. The various elements of knowledge transfer

process were presented, with the main focus being on creating and acquiring knowledge, and storing and retrieving it in the organization. The following chapter will concentrate on one key element of the knowledge management process and the key theme of this research: transferring knowledge across borders. In 3.1., the process of knowledge transfer is described. In 3.2., the factors that affect the choice of mechanism are introduced. In 3.3., the barriers impeding effective knowledge transfer are presented. Lastly in 3.4., the knowledge transfer mechanisms are discussed: the two different types of them, and the advantages and disadvantages they provide for the transfer process.

3. CROSS-BORDER TRANSFER OF KNOWLEDGE

Cross-border transfer of knowledge has become a relevant issue due to globalization. Firms are organizing themselves globally, in search for new markets, lower labor costs and expertise. In addition, other business trends, such as increased use of joint ventures, strategic alliances and mergers and acquisitions, emphasize the importance of effective transfer of knowledge across organizations (Argote, Ingram, Levine & Moreland 2000). Nowadays, organizations realize better than before the importance of knowledge to the organizational competitiveness and have started to pay more attention to the process of transferring knowledge from one place of the organization to another (Dixon 2000: 1-2).

Organizations, which are more capable in the knowledge transfer process, are more productive and more likely to manage harder times compared to those firms that are not so skilled at it (Argote et al. 2000). However, an effective knowledge transfer is difficult to achieve (Argote et al. 2000; Zack 1999). Nowadays, organizations are such complex entities that the knowledge in them is fragmented. Knowledge is hard to locate and disseminate. Most of the knowledge potential is hereby left untapped (Zack 1999). Huber (1991) has discovered that organizations often do not know what they know and have weak systems for locating and retrieving knowledge that resides in them. In many cases, organizations recognize important knowledge but they do not know how to effectively transfer it across borders (Conn & Yip 1997).

Riusala and Suutari (2004) have studied what type of knowledge expatriates transfer to their foreign affiliates. The results indicated that various types of knowledge are being transferred. They can be classified to seven categories: management knowledge, cultural knowledge, sales and marketing knowledge, technical and production knowledge, product/service knowledge, HRM knowledge and accounting/finance knowledge. In a study by Smale and Suutari (2008), the key types of knowledge that were transferred from Finland to the subsidiaries in Estonia and Czech Republic were management knowledge, such as reporting principles and issues in strategic and operations management, cultural knowledge, which included company values, and technical

knowledge. Transfers in marketing knowledge and HRM knowledge were discovered to be less emphasized.

3.1. The process of knowledge transfer

In literature, there are several definitions for 'knowledge transfer'. May, Puffer and McCarthy (2005) describe it as "a process of systemically organized exchange of information and skills between entities". Jasimuddin (2005) defines it with more detail, proposing that the factors in the process include: with whom to transfer (agents involved), what is to be transferred (content and context of knowledge) and how it can best be transferred (mechanisms). Davenport and Prusak (1998: 101) state: **Transfer = Transmission + Absorption (and Use)**. The equation emphasizes that in addition to having two actions in the transfer process, sending the knowledge and the absorption by the receiver, knowledge must also be taken in use in order to make the transfer complete. If the absorbed knowledge does not cause any change in behavior, it is useless.

Szulanski (2000) has created a process model for knowledge transfer, which identifies different stages. The process includes four stages, which are initiation, implementation, ramp-up and integration. The **initiation** stage starts when a knowledge gap in the organization is detected, which is followed by the search for opportunities to fill that gap. Ultimately, the decision to proceed with the transfer is made. Initiation stage includes all the events prior to the decision to transfer. When the transfer decision has been reached, the **implementation** stage begins. At the implementation stage, information and resources are exchanged between the sender and the receiver. Transfer-specific social relations are established between the parties involved. The information and material flow is typically the highest at this stage. The transferred practices may be adjusted to fit the needs of the recipient. The **ramp-up** stage begins when the receiver starts using the new knowledge. At this stage, the recipient has to deal with unexpected problems when using the new practice. At first, the usage is quite ineffective but a

satisfactory level will be reached with time. When this has been accomplished, the **integration** stage begins. When a satisfactory performance has been reached, the usage of new knowledge becomes routinized and it will be integrated in the firm's operations.
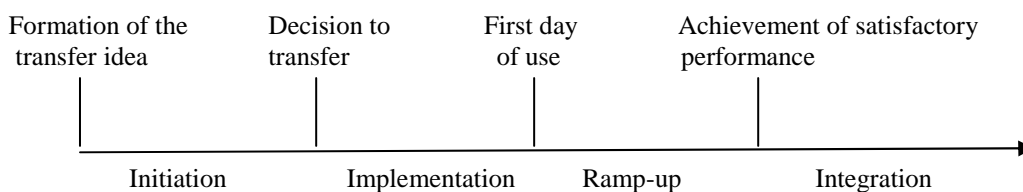
Formation of the transfer idea	Decision to transfer	First day of use	Achievement of satisfactory performance

Initiation   Implementation   Ramp-up   Integration

Figure 3. The process of knowledge transfer (Szulanski 2000).

According to Gupta and Govindarajan (2000 a), effective knowledge transfer within or between one or more organizations is a function of the following five elements:

The first element is the **value of source unit's knowledge stock**: The greater the value is, the greater is its attractiveness for other units. The second element is **motivational disposition of the source unit**: There can be many barriers, which may reduce the unit's motivation to share knowledge, such as inter-unit rivalry. The third element is **existence and richness of transmission channels**: Clear communication channels, as well as open and frequent communication between the parties facilitate the knowledge flows across organizations. The fourth element is **motivational disposition of the target unit**: The managers in the target unit may refuse to adopt the knowledge from the source because of ego-defense mechanisms and power struggles. That kind of resistance is based on ignorance or underestimation of the value of knowledge. The fifth element is **absorptive capacity of the target unit**: It is defined as the ability to not only receive knowledge but also assimilate and use it. The closer the new knowledge is to the target unit's prior knowledge and the greater the similarities between the source and target unit, the higher the absorptive capacity of the receiving unit.

3.2.   Factors affecting the choice of knowledge transfer mechanism

There is an understanding that knowledge transfer will be successful if an appropriate mechanism is used. The 'appropriateness' refers to the extent to which the mechanism is useful and suitable to carry through the transfer process (Jasimuddin 2007). Dixon (2000: 22-28) proposes that there are three criteria, which affect the process of knowledge transfer: 1) **Who the intended receiver is** (in terms of similarity of task and context): It is argued that the more similar the task and the context of the knowledge receivers are to those of the knowledge senders, the better the transfer method will work in that situation. 2) **Nature of the task** (in terms of how routine and frequent it is): The statement with this criterion is that if the task occurs frequently and is routine with established stages, the knowledge will be transferred more effectively. 3) **Type of knowledge being transferred**: The more explicit the knowledge and the smaller the scope of knowledge (the less different functional areas impacted by the implemented knowledge), the better the transfer results. These three factors influence the choice of knowledge transfer mechanism. Other factors emerged from research, which are suggested to affect the choice of transfer mechanism are the status of the actors, personal ties and the location.

Several other authors also argue that the **type of knowledge** is a crucial factor in choosing the most convenient transfer mechanism (see for example Smale 2008 b; Goh 2002). There must be an appropriate fit between the type of knowledge and the transfer mechanism. Guzman and Trivelato (2008) emphasize that understanding the distinction between tacit and explicit knowledge and its significance to the firm's knowledge transfer processes is vital because the processes to transfer codified-oriented knowledge are different from the ones needed to mobilize tacit-oriented knowledge. The transfer mechanism must be tailored to the type of knowledge in order for the transfer process to be efficient and effective. In this context, efficiency refers to the cost and speed of the transmission channels, and effectiveness to whether the receiver has actually received the message (Gupta & Govindarajan 2000 b). Simonin (1999) states that the degree of tacitness determines how well and how easily knowledge can be transferred across

organizations. Explicit knowledge is what is printed or stored in manuals, patents, reports and databases. It can be easily articulated and captured. To transfer this kind of knowledge, technology-based, structured processes, such as information systems are suitable methods (Goh 2002). Tacit knowledge transfer generally requires extensive personal contact. The transfer relationship maybe a partnership, mentoring or an apprenticeship but some kind of working relationship is usually needed (Davenport & Prusak 1998: 95). When taking into consideration the classifications of knowledge, one can roughly conclude that when knowledge is explicit, simple or structured in nature, IT-based mechanisms are the most appropriate to use, whereas when knowledge is tacit, complex or social in nature, people-based mechanisms are more suitable.

Previous research indicates that the **status of the actors** involved in the transfer process also affects which knowledge transfer mechanism is chosen. If the members are at the same organizational level, any mechanism can be used. Nevertheless, face-to-face interaction is preferred if it is possible in that situation. When another member is at a higher organizational level, such as an immediate boss or a second line manager, IT-based tools are the preferred choice. When the other party is a second line manager, soft tools are almost never used to transfer knowledge. (Jasimuddin 2007.)

Personal ties between the members also affect the transfer process. There are two kinds of ties: strong personal ties and weak personal ties. When people have strong personal ties, they tend to be indifferent about which mechanism to use. However, when ties are weak, IT-based tools are most likely employed. Yet, in some situations people-based mechanisms are used to improve the current relationship if the personal ties are not strong. (Jasimuddin 2007.)

Location between the knowledge senders and receivers play a dominant role in selecting the appropriate transfer mechanism. On a general level, it can be argued that the longer the distance between the members, the more likely an IT-based mechanism is chosen, such as an e-mail. People-based tools are frequently used when the parties are at a close distance. Using face-to-face interactions in a distant proximity might be very inefficient because of higher costs involved. (Jasimuddin 2007.)

3.3. Impediments in knowledge transfers

Knowledge transfers are always problematic but especially when the transfers take place between different countries. Knowledge is always context-related (Jasimuddin 2005) and when the parties of the transfer process are located in different country contexts, which add cultural and institutional challenges, a successful transfer is even harder to accomplish. Impediments to knowledge transfers can be said to include the characteristics of knowledge, knowledge sender's and recipient's ability and motivation to receive/share and absorb knowledge, the relationship between the parent company and the subsidiary, as well as country-level factors.

As it has been stated before, tacit dimensions in knowledge complicate knowledge transfers. Kogut & Zander (1993) have introduced three constructs, which measure the tacitness/explicitness of knowledge: codifiability, teachability and complexity. Codifiability measures the degree the knowledge can be encoded and expressed in printed format, such as a document or a database. Teachability measures how easy it is to teach the knowledge to a new audience and complexity refers to the knowledge including interacting elements.

Burgess (2005) has studied employee willingness to share knowledge by dividing motives into four levels: individual, interpersonal, relationship and group. According to her research, the biggest barriers to knowledge transfers are the lack of organizational rewards for sharing knowledge and rivalry between units. Szulanski (1996), for one, has discovered that instead of motivational factors, major barriers to internal knowledge transfer are knowledge-related, such as the receiver's lack of absorptive capacity, ambiguous interpretation of knowledge and a difficult relationship between the sender and the receiver.

Kostova and Roth (2002) have placed knowledge transfer in an international context and created a framework, which applies particularly to MNCs transferring knowledge into their foreign subsidiaries. There are two contexts, which affect knowledge

transfers: the external institutional context of a country and the internal relational context within an MNC. Institutional context refers to the country's institutional profile including regulatory components (laws and regulations), normative components (values, beliefs and norms) and cognitive components (interpretations and frames of thought). The more these components differ between two countries, in other words the bigger the institutional distance is, the harder it is to achieve a successful transfer. The external and internal environment can cause institutional pressures in MNCs when the subsidiary should comply with the local laws and national values, but at the same time, is expected to follow the rules of the parent and adopt the parent's values, as well. (Kostova & Roth 2002.)

Relational context refers to the parent-subsidiary relationship. That relationship is defined through three characteristics: dependence, trust and identity. Dependence refers to the belief of the subsidiary managers that the unit is dependent on the parent in providing crucial resources, such as technology and capital. Trust is defined as the parent having good will and acting honestly and fairly towards the subsidiary. Identity refers to the degree of attachment the host employees have for the parent. The lower the dependence, trust and identification, the more challenges are encountered in knowledge transfers. (Kostova & Roth 2002.)

In Kostova's (1999) earlier research, the theoretical framework incorporates organizational context, in addition to the relational and social (country's institutional profile) contexts. Organizational context refers to the organizational culture in the receiving unit. It includes the degree of favorability for learning, innovation and change, which affects how successful the knowledge transfer will be, as well as how compatible the values of a specific practice are with the ones of the unit's organizational culture. Based on the work by Kostova (1999), Szulanski (1996) and Kogut & Zander (1993), Riusala and Suutari (2004) have created an integrative framework consisting of impediments on the country-level, unit-level and the parent-subsidiary-level, as well as of the barriers related to the characteristics of knowledge. This framework will be used in the empirical part when presenting the challenges encountered in knowledge transfers from Finland to Estonia. The framework will be briefly presented next.

The barriers related to the **characteristics of knowledge** include: *codifiability* – it is very hard or impossible to codify knowledge, *teachability* – teaching the knowledge is slow and difficult, and *complexity* – knowledge is multifaceted and is not easily defined. Barriers related to the **social context** include: *regulatory* - transferred knowledge is not compatible with the local laws and regulations, *normative* – knowledge is incompatible with the national values of the host country, and *cognitive* - local employees have trouble understanding the knowledge. Barriers to the **organizational context** include: the *general* climate in the host unit is not supportive towards learning and change, *practice-specific* - there is a collision between the unit's organizational culture and the transferred knowledge and the *absorptive capacity* – local employees lack the skills to implement and utilize the knowledge effectively. Lastly, barriers to the **relational context** include: *commitment* – local employees are not committed to working towards the parent's goals and objectives, *identity* – local unit cannot identify itself with the parent but regards itself as a distinct unit, *trust* – host employees question the parent's motives, and *power dependence* – the degree to which the unit could exist without the parent company. (Riusala & Suutari 2004.)

3.4.   Mechanisms for knowledge transfer

Knowledge transfer mechanisms are the media through which the knowledge is transferred. Mechanisms can be broadly classified into two dominant categories based on the tacit-explicit dichotomy (Jasimuddin 2008). There are different ways how these categories are referred to. Hansen et al. (1999) speak of codification approach and personalization approach as methods to transfer organizational knowledge. Jasimuddin (2008) talks of hard mechanisms and soft mechanisms. The first category tends to transfer tacit knowledge through face-to-face contact and the latter explicit knowledge with information technology (IT) (Jasimuddin 2008).

3.4.1.   IT-based mechanisms

Knowledge, which is explicit, objectified and easily articulated in words, can best be transferred through IT-based mechanisms. Examples of such knowledge are product designs and specific manufacturing processes (Inkpen & Dinur 1998; Jasimuddin 2005). IT-based mechanisms include several, different kinds of tools. Huber (1991) lists some examples: groups support systems, groupware, computer-assisted communications technologies including the Internet, intranets, e-mail, voice mail, video conferencing and electronic bulletin boards. In table 3, there are some IT-based mechanisms presented in more detail.

Table 3. Examples of IT-based mechanisms (Roberts 2000).

Electronic mail (e-mail): For daily communication and transfer of documents (agendas, schedules, reports etc.).

Voice mail: Asynchronous audio communication.

Teleconferencing: Telephone conversation between more than two people.

Video conferences: Group meeting among people in different geographical locations (often formal).

Desktop videoconferencing: One-to-one meeting, or small groups (often informal). May include shared computer displays.

CAD and CAM: For the transmission of specifications from design to manufacturing.

Discussion lists: Information can be shared and stored through questions and answers encouraging the codification of knowledge.

Information databases: For open access to different data.

Groupware: Includes services listed above and is becoming more widespread. Examples are Lotus Notes and Novell Groupwise.

It is suggested that IT mechanisms play a central role in the transfer of organizational knowledge (Alavi & Leidner 2001). They are the only effective tool, which can connect a large amount of people in geographically dispersed locations (Gupta & Govindarajan 2000 b; Goh 2002). They are cost-efficient and can transfer a significant amount of knowledge at one time. Codifiable knowledge can be easily replicated and transferred at low or no marginal cost, presuming that it is possible to transfer it independently of tacit knowledge (Roberts 2000). Davenport & Prusak (1998: 102) talk about the velocity of knowledge transfer, which refers to the speed with which the knowledge moves through the organization. IT-based mechanisms have high velocity; they can move knowledge fast within and across organizations. IT has the great ability to connect people, as well as to store and retrieve huge amount of knowledge, in addition to providing an infrastructure for moving knowledge (Davenport & Prusak 1998: 45).

IT can increase knowledge transfers by providing more opportunities to search for knowledge. Generally, the quest for knowledge sources is limited to one's closest colleagues. However, new knowledge is seldom found in one's immediate work networks because people in the same group tend to possess similar knowledge. Furthermore, research indicates that people are often unaware of what others are doing. IT-based tools can create a forum that facilitates the contact between knowledge seekers and potential knowledge providers. For example, a corporate directory helps employees to locate the person who may possess the knowledge that might solve their problem. With IT-based mechanisms, people can more rapidly locate either the knowledge or the person possessing it, than without such tools. (Alavi & Leidner 2001.)

Organizations tend to favor computer-mediated tools. Although IT greatly facilitates the knowledge transfer, it does not happen without efforts. Bolisani and Scarso (1999) point out that before being able to reap the benefits of IT, double transformation process is required: transfer from knowledge to information to data, and back from data to information and finally to (new) knowledge. Some organizations make the mistake of spending too much time and effort on creating the systems, and not enough on the actual content, or they try to force fluid knowledge into rigid data structures (Davenport & Prusak 1998: 45.) It means that some organizations get distracted from the main purpose of employing IT systems, which is to distribute knowledge efficiently and effectively to a large amount of people.

Although hard tools are a very efficient method for transferring explicit and codified knowledge, they increase the risk of knowledge leaking out to competitors. To make knowledge more explicit, enhances its transfer internally but it also increases its spillovers to other organizations (Argote & Ingram 2000). Moreover, many authors find technology alone not a sufficient means for knowledge transfer but emphasize the need for a human intervention (Albino, Garavelli & Gorgoglione 2004). For example Dixon (2000: 4-5) warns using technology to replace the face-to-face interaction in knowledge transfers. She advises that technology should be combined with a face-to-face contact in order to gain the best results. One cannot replace the other but they can supplement each other.

Jasimuddin (2005) argues that a face-to-face contact between the knowledge contributor and user should be a starting point in the process of knowledge transfer because knowledge is embedded within particular contexts and communities. Therefore, information technology should follow the social interaction. According to Zack (1999), in order to effectively use information technology for communicating knowledge, there must be a shared interpretive context in the organization. When the parties of the knowledge transfer share a similar background, they are able to communicate knowledge via electronic channels better. When the parties share the context only to some degree or when the work community is not highly connected, more interactive modes such as e-mail or discussion databases are proper tools. The richest modes, such as video conferences, are the most supportive tools in knowledge transfer when the context is not well shared (Zack 1999). Trust building is an important aspect of the social interaction without which the IT-tools cannot be exploited to the fullest, according to literature. The lack of personal contact reduces the commitment and trust (Davenport & Prusak 1998: 47). According to research done by Dixon (2000: 4-5), knowledge management systems used by companies would not work without the trust building through face-to-face contact.

3.4.2. People-based mechanisms

People-based mechanisms can best transfer knowledge, which is unstructured, tacit and embedded, such as beliefs and norms of behavior (Inkpen & Dinur 1998). Those types of knowledge require rich transmission channels, such as face-to-face communication and the transfer of people (Gupta & Govindarajan 2000 b). Tacit knowledge compared to explicit knowledge is relatively more difficult to transfer because the socialization and learning procedures require that the knowledge sender and receiver be at the same place, at the same time (Roberts 2000).

Determining how each knowledge type can be transferred is challenging for organizations. Tacit knowledge is personal, existing in the mental models and expertise after years of experience in a particular field. It is complex and difficult to communicate to others. Therefore, tacit knowledge may be best transferred via more interpersonal and

unstructured methods, such as mentoring, teamwork, chat rooms, personal intranets and opportunities for face-to-face conversations, for example group dialogue or personal reflections on experiences and lessons learned. (Goh 2002.)

Davenport and Prusak (1998: 88) have a clear argument when thinking about the best method to transfer knowledge. They say that companies should "hire smart people and let them talk to one another." In practice, this does not always happen in workplaces. People are so consumed with their every-day work routines that they do not have time to engage in deep conversations with their colleagues as much as they should.

The challenge for organizations is how to bring tacit knowledge out for everybody's use. According to one survey, up to 70% of the learning at the workplace is informal, occurring through people telling stories, gossiping, watching others work. People tend to learn the most when they participate in meetings, interact with customers, mentor other employees or when they are being taught themselves. This emphasizes the importance of social interaction at the workplace (Pfeffer & Sutton 2000: 18, 24-25) and the use of soft tools promotes socialization (Alavi & Leidner 2001).

It is argued that people learn best from stories. Stories entail experience. They are based on feeling and thought. They are human in nature, the same way as knowledge, which may explain why there is a link between these two (Davenport & Prusak 1998: 81-82). A good example of the benefits of narratives as a method to transfer knowledge is that of Xerox. In that company, it was noticed that the copy machine technicians do not learn their job from reading manuals or sitting in courses but from listening to their colleagues' success stories in the coffee room. This was discovered only after it was forbidden to use the coffee room for the purpose of optimizing the operations and the use of time. After a while, the repair operations started to take longer and the professional skills of the technicians started to deteriorate. It was realized then that the negative changes occurred because the technicians did not only chat with their colleagues in the coffee room but they also shared their successful repair processes with each other and taught new ways to solve problems. These success stories have now been collected on the company data base for everybody's use (Aaltonen & Heikkilä 2003:

18).

People are able to transfer both tacit and explicit knowledge, whereas technology can transfer only explicit knowledge effectively. People possess the sensitivity and flexibility, which technology lacks. People are able to modify the knowledge so that it fits the new context. This is important because the knowledge reservoirs must be compatible with the new environment. It cannot be taken for granted that the piece of knowledge will suit the new environment. Sometimes knowledge must be adapted to fit the new context. (Argote & Ingram 2000.)

Expatriation is one effective method of knowledge transfer because it can transfer knowledge embedded in people's minds and experiences. The disadvantage of that method is, however, its high cost, difficult management and the challenge in measuring its value (Smale 2008 b). Furthermore, it should be taken into account that if the only objective of expatriation is to transfer technical knowledge or to fill a position for which no local employees are available, selection may be based solely on technical skills and extensive cross-cultural training might not be needed. However, when the expatriate is expected to transfer mostly soft issues, such as culture and informal information, soft skills including interpersonal skills and cultural empathy might be more important. Those skills might have to be taught. Yet, only few companies identify soft issues as important reasons for expatriation and that creates a challenge (Harzing 1999: 362). Smale (2008 b) elaborates the same issue: There are characteristics within an individual transfer mechanism, which have to be taken into account when deciding on the best transfer tool. For example, when using an expatriate to transfer knowledge, that person must also possess good interpersonal and teaching skills in order to convey the knowledge to a new audience. Those features must also be evaluated when assessing the real potential of the mechanism (Smale 2008 b).

In many cases an organization's most valuable knowledge is tacit in nature, residing only in people's minds; in their skills and expertise. That kind of knowledge is also the most vulnerable to disappear. If tacit knowledge is concentrated only on one person and if he leaves the company, he will take the knowledge with him. In order to prevent the

loss, soft tools, such as mentoring and apprenticeship, are important methods to capture tacit knowledge. That way more than just one person possesses the knowledge and it is more likely to stay in the company. (Davenport & Prusak 1998: 81.)

People-based tools usually have high viscosity, meaning that they are rich in the transferred knowledge. In an apprenticeship or a mentoring relationship, the receiver will gain a large amount of tacit knowledge on a certain topic, over time. When reading reports or using an online database, for example, the knowledge will be much thinner (Davenport & Prusak 1998: 102-103). However, using people-based mechanisms, such as an apprenticeship or learning by doing, requires more time for the knowledge to be transferred (Roberts 2000). Moreover, soft tools may prevent the wide dissemination of knowledge. Also, they might be more effective when used in smaller organizations (Alavi & Leidner 2001).

All in all, organizations tend to focus on the hard factors of knowledge transfer, such as information technology and structured organizational processes, and ignore the important soft factors because they are clearly harder to develop and require more focus and effort (Goh 2002).

Table 4. Characteristics of knowledge transfer mechanisms.

	IT-based mechanisms	**People-based mechanisms**
Examples	E-mail, video conferencing, intranet, electronic bulletin boards	International teams, training, expatriates, committees, story-telling, meetings
What type of knowledge	Explicit, easily articulated	Tacit, unstructured, embedded
Advantages	Easy distribution to big group of people cost-efficiency, high velocity, connect people easily	Able to transfer both types of knowledge, high viscosity, people can modify the knowledge, builds trust and commitment
Disadvantages	Risk of knowledge leaking out, missing context, often not effective without personal contact	Requires more time for the knowledge transfer, people must be at the same place at the same time, narrow dissemination

From research it has emerged a new approach to knowledge transfer, called the hybrid strategy. It combines the existing mechanisms: soft tools and hard tools. There are weaknesses in both types but with the hybrid approach, one can try to minimize the problems. It can be difficult to accomplish a successful transfer using only one particular method. A successful hybrid strategy takes advantage of the positive sides of both soft and hard mechanisms (Jasimuddin 2008; Jasimuddin, Klein & Connell 2005 a). This supports the argument that knowledge cannot be classified as containing only tacit or explicit elements but is a mixture of both (Zack 1999). Most authors view that technology is not sufficient without the human intervention. Goh (2002) states that both structured, technology-based methods and less structured approaches are needed for a successful knowledge transfer. Companies are constantly searching for the right balance between the use of technology and people (Albino et al. 2004).

Continuum of tacitness
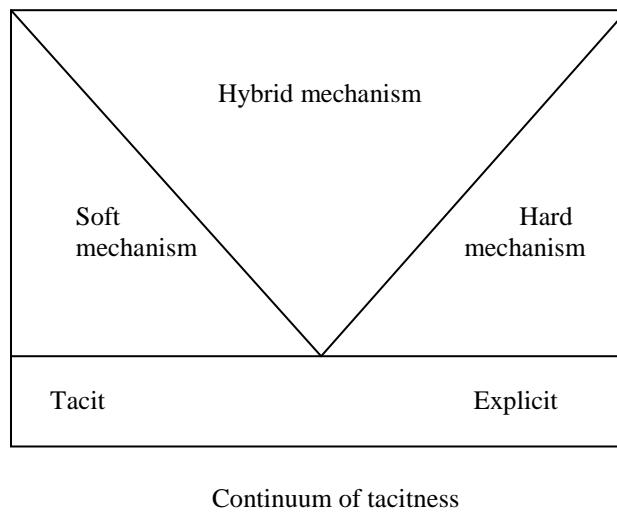
Figure 4. Hybrid strategy in knowledge transfer mechanisms (Jasimuddin 2008).

In this last chapter of the theory part, knowledge transfer across borders was discussed. It included the stages of the knowledge transfer process, the affecting factors behind the choice of mechanism, the sources of impediments in cross-border knowledge transfers and ultimately, an investigation of the IT-based and people-based mechanisms, as well as their positive and negative effects on knowledge transfers. Next, the focus will be turned to the methodology of research. To start with, the used research methods are described, as well as how the data was collected and the data analysis proceeded. Finally, the validity and reliability of the study are evaluated, and key limitations of research are pointed out.

4. RESEARCH METHODOLOGY

The fourth chapter deals with the methodology of this research. The first section describes the method that was used for the research, the second section the collection of data step by step, the third section the process of analyzing the gathered material, the fourth section evaluates the validity and reliability of research, and finally the last section points out the key limitations.

4.1. Research method

The method chosen for the empirical investigation is qualitative research because in discussion-based interviews linguistic interaction is emphasized, which enables the interviewer to approach difficult issues and topics, which have not been extensively studied before. Issues, which would not come out otherwise, can be reveled in interviews. Interview as a method of collecting data is flexible and suitable for many different purposes. Answers can be clarified and interviewees can be asked to argue their opinion, which provides deeper information for the interviewer. Additional questions can be asked when needed. Interviews have also disadvantages, though. They are context- and situation related. There is always interpretation included in the results, thus generalizing the conclusions must always be carefully considered. (Hirsjärvi & Hurme 2008: 11-14, 35.)

For an interview type, a semi-structured interview - also known as a theme interview - was chosen. It means that instead of detailed questions, the interview proceeds along certain central themes. It allows interviewees to speak freely and emphasizes the importance of interpretations and meanings they give for the discussed issues. Theme interview is a semi-structured method because the themes are the same for everyone. It lacks the exact form and order of questions typical for a structured interview but it is not as free in format as an open-ended interview, either. (Hirsjärvi & Hurme 2008: 48.)

4.2. Data collection

The material for this research was gathered from 10 Finnish expatriates who were either working in Estonia at the time of the interview or had been working shortly before it. Expatriates working on a management level were chosen as a target group because they were considered to be centrally involved in the knowledge transfer process, and thus to be able to provide the most information on the topic.

Gathering of research data began by identifying organizations, which met the requirements for this research: a Finnish, multinational company with a subsidiary in Estonia. Those companies were searched in the Internet using business directories. After finding suitable organizations, an e-mail was sent to the companies' human resources department, explaining the purpose of research and inquiring if the company is employing such potential interviewees. These persons were approached by e-mail and if they were willing to participate in the research, the date and time of the interview were agreed on. Some of the interviewees were found with the so-called snowballing method: interviewees suggesting other potential interviewees. The first two interviews were pilot interviews in which the format of the questions was tested. Some changes were made after both interviews. The first interview was conducted in November 2008 and the rest in March-May 2009. All the interviews were made by telephone, in Finnish language and each lasted about 30 minutes. The framework of the interview was sent to the interviewees well in advance of the interviews, so they were given a chance to get acquainted with the themes before the interviews took place.

The interviews were started with questions of the individual and company background details. Based on the objectives of the study, questions were asked first related to the type of knowledge that is being transferred to the Estonian unit. Time factor was also included in this theme: what type of knowledge was transferred in the past and how it is assumed to be in the future. Next, the respondents were asked questions about the mechanisms that are being used to transfer that knowledge. Transfer mechanisms had been divided into IT-based mechanisms and people-based mechanisms. Respondents

were also asked to describe the advantages and disadvantages when using each type of mechanism. They also replied to questions concerning the factors, which determine the choice of transfer mechanism and finally, the types of challenges they face with the knowledge transfers.

The statistics of the interviewees and their companies are presented in tables 4 and 5. There was one company from which two expatriates were interviewed and another one where the number of interviewees was three. All other interviewees were from different companies. One of the respondents was a female and the rest were male. The average age was 40. The respondents had been working on average 3 years in Estonia. One respondent had a significantly longer working experience of 12 years there. Four of the respondents were on a fixed-term assignment in Estonia at the time of the interview, five had already returned to Finland and one was working with a local contract in Estonia. Everyone was working or had been working at the management level in Estonia. The size of the Estonian units varied a lot. The smallest unit employed only 25 people and the biggest unit about 1000 people. The time the companies had been operating in Estonia ranged from 4 to 18 years. One of the companies wished not to expose their industry sector in the research.

Table 5. The interviewees in the research.

Interview ee no.	Age	Position	Education	Work experience in Estonia (years)
1.	31	Plant manager	Master of Science in Technology	1
2.	48	CEO	Graduate of Commercial Institute	12
3.	39	Business unit manager	Master of Science in Technology	2
4.	37	Logistics manager	Master of Science in Technology	2
5.	33	CEO	Master of Science in Technology	2
6.	39	CFO	Master of Economic Sciences	2
7.	54	Area manager	Graduate in Engineering	1
8.	41	Production manager	Bachelor of Food Technology	2
9.	47	CEO	Graduate in Engineering	3
10.	32	Business controller	Master of Economic Sciences	1

Table 6. The companies in the research.

Compa ny no.	Industry sector	No. of personnel in the Estonian unit	No. of personnel in the corporation	Operating time in Estonia (years)
1.	Building industry	280	15 000	16
2.	Food industry	80	1100	18
3.	Electronics industry	1000	5200	18
4.	-	670	6100	4
5.	Electronics industry	1000	5200	18
6.	-	670	6100	4
7.	Machinery trading	25	5600	11
8.	-	670	6100	4
9.	Wood processing	68	5000	12
10.	Energy	160	15 000	9

4.3. Data analysis

The approach to this research is mostly deductive in nature. Although the purpose is to examine the data in a multifaceted and detailed way, as well as to potentially reveal unexpected issues, the essential role of previous research strongly refers to the deductive approach. The existing theories served as a starting point for this research, from which the research objectives were derived. The aim of research is explorative.

The objective is to research phenomena, which are less known, as well as to find new viewpoints. (Hirsjärvi, Remes & Sajavaara 2007: 134, 160.)

In data analysis, the meanings are searched in the text. The aim is to build a verbal and explicit description of the researched phenomenon. The data is organized into a concise and clear form without losing the information it contains, with the objective of drawing reliable conclusions. Qualitative processing of the data is based on logical deduction and interpretation, in which the data is first decomposed into parts, conceptualized and finally recoded in a new way into a logical whole. (Tuomi & Sarajärvi 2003: 106, 110.)

All the interviews were recorded and fully transcribed immediately after the interviews. About 65 pages of typed text were formed out of the 10 interviews. The transcribed interviews were sent back to the interviewees for their revision. Some changes were made based on their corrections. The data analysis started by reading thoroughly all the interviews several times and getting acquainted with the content. The themes in the interviews were based on research questions, which originated from existing theories. These themes were identified in the data and the research material was divided in parts by classifying it under the themes. The parts of material were combined under each theme and rebuilt into a new whole in order to make interpretations and conclusions. The results are presented in the next chapter together with direct quotations from the interviews.

4.4. Validity and reliability of research

The quality of research can be evaluated through concepts of validity and reliability. There are many different interpretations of these concepts in literature. Both of them originate from quantitative research and therefore some of them do not apply as well to the qualitative research as they do to the quantitative one. Anyhow, it is meaningful to observe the reliability and validity of any study.

Reliability means authenticity and consistency of research. If the same study was to be conducted again by another researcher using the same kind of procedures as the earlier researcher, he would reach the same conclusions in a reliable study (Yin 2003: 37). The reliability of this study was improved by maintaining the chain of evidence; describing in detail how the data was collected and by recording and transcribing all the interviews, as well as allowing the interviewees to make corrections on the transcript. Direct quotations are presented in the results section as evidence behind the conclusions. Furthermore, key concepts, such as definitions of 'transferred knowledge' and 'knowledge transfer mechanisms' were explained to the interviewees, which increased the probability that all the respondents understood the key concepts in the same way.

The validity can be estimated from different angles, such as: construct validity, internal validity and external validity. Construct validity refers to the fit between the concepts used in the new research and those already established in some relevant area. If the concepts are congruent with the ones already successfully used in previous analyses, it increases the construct validity of research (Dey 1993: 260). Internal validity refers to the harmony between theoretical and conceptual definitions of research. There has to be a logical connection. A strong familiarity of the researcher with the scientific area increases the internal validity (Eskola & Suoranta 1998: 214). In this study, previous research was used as a frame of reference, which improves the validity. External validity signifies how well the research findings can be generalized beyond that one study (Yin 2003: 37). In this research, the aim was an analytical generalization, which means that a particular set of results is aimed to be generalized to a broader theory (Yin 2003: 37).

4.5. Limitations of research

There are some limitations in this research. Firstly, the primary focus is knowledge transfers from the parent company to its foreign subsidiary in Estonia, although it is no longer so that only the headquarters possesses the important knowledge to be

transferred. Valuable knowledge resides in foreign subsidiaries in developed and less developed countries, as well. However, for the purpose of my research, the main focus is on the knowledge transferred from the Finnish headquarters to its foreign subsidiary. Furthermore, this research involves a single-country context, as knowledge transfers only to Estonian units are examined. Secondly, knowledge transfers at the organizational level are the main focus, not knowledge sharing at the individual level. Thirdly, all the interviewees were Finnish expatriates working for Finnish companies. Perhaps more variation would have been expected if the study had included participants from other cultural backgrounds as well. Interviewing the local managers in Estonia, for example, could have brought different viewpoints. Fourthly, the number of interviewees remained relatively low. More accurate conclusions could have been made, had there been more data. Lastly, the interviews were conducted via the telephone, which is not as efficient method for gathering information as face-to-face discussions.

Now having described the methodology of research, the empirical findings are presented next in the following chapter.

5. EMPIRICAL RESULTS

The empirical findings of the research are described in this chapter. First, the amount of knowledge that is transferred to the Estonian units is described on a general level. The subsequent subtitles deal with the objectives of the study: 5.1. describes the types of knowledge that are transferred, 5.2. describes the used mechanisms in the transfer processes, as well as the factors affecting the choice of mechanism and lastly, 5.3. describes the challenges that are faced in knowledge transfers.

The amount of knowledge transferred among the companies interviewed varied. There were six different companies participating in this research. A few of them deployed the same patterns in each unit. The expatriates of these companies talked about "the concept of the firm", which integrated all the operations and processes across the foreign subsidiaries. In a couple of other companies, the support functions, such as finance and HRM were integrated, while the sales companies remained independent in the foreign units. In one company, the operation modes were currently more local, with no active knowledge transfer occurring. However, there had been knowledge transferred during the establishing of the business operations and the transfer processes were expected to continue again in the future.

5.1. Types of knowledge transferred

This section describes the types of knowledge that are transferred from Finland to Estonia. It starts by explaining what kind of knowledge was transferred in the beginning when the business operations had only started, followed by the situation today, as well as predictions for the future. From most of the interviews it became evident that in the very beginning, nearly all know-how was transferred to Estonia. The flow of knowledge was often the highest at that time. Especially production-related knowledge, such as quality standards and testing, was among the first types. That was necessary in order to

get the production process running. The knowledge transfer was started with the basic functions, such as production. They were integrated with the ones in the parent company and thus brought to the same operational level. Some respondents described the starting times of their companies in the following way:

"When we started the business operations, practically all know-how was transferred then."

"When this acquisition was made, at that time the cooperation was strongly related to the production. There was a certain foundation here but it was in fact rebuilt. It was a very strong capture of the production."

"After the establishment of our subsidiary, we started to transfer know-how and first to those processes, which are directly related to production, for example quality, testing and that sort of knowledge."

Product development was also started to be integrated in the very beginning. It is one area where knowledge transfer has been continuously taken place and is expected to continue. For example, companies introduced new products in the Estonian markets, thereby gaining competitive advantage. By bringing knowledgeable people in R&D into Estonia, product development could get started:

"The next step was product development. People with skills in product development were brought to the unit to help in that area and we collaborated with the concern in product development."

"Product development has been continuous […].

Moreover, financial knowledge and management knowledge were mentioned as types of knowledge that were transferred in the beginning. Accounting principles were harmonized and the management model was started to be integrated with the Western one. One expatriate commented how the management skills still need to be improved in

Estonia. That type of knowledge is needed there even today. It is difficult to alter the old management style that was learned in the era of socialism. It takes a long time to change the mindset of people. Respondents talked about transfers of financial and management knowledge for example as follows:

> *"The integration of finance and integration of support functions, on the whole, have been increasing for the last three years."*

> *"When I was transferred here, the integration of management was emerged. Management practices were started to be standardized."*

> *"Regarding managerial knowledge and management training, there is still a lot to do in Estonia. That kind of know-how must be improved there all the time."*

In some of the companies, the control in the foreign unit was clearly tighter in the beginning when the integration phase was the most active. There were more Finnish expatriates implementing the new processes and procedures. Later on, when the business operations were running, the Estonian units became more independent with local managers taking more control over the business. The number of Finnish expatriates also decreased. This was also one thing that used to be different compared to the situation today. As one expatriate explained it:

> *"The control was bigger in the beginning. There were more Finnish expatriates here and the integration phase was ongoing. […]. There are local CEOs here, so they can operate quite independently at the moment."*

Today the type of knowledge that is transferred does not relate to the basic productional functions anymore. The transfer may have been started with the basic know-how but has later progressed into transfer of R&D, for example. As one respondent expressed it, since the starting years, there has been a shift from the 'transfer of production' to the 'transfer of know-how':

"At the moment, the knowledge that is now transferred from Finland, does not relate so much to the business operations or to the products anymore, but more or less to product development, what happens to our raw materials, for example."

"In a way, we have shifted from the transfer of production to the transfer of know-how.."

Cultural knowledge has also been among the first types to be transferred and it has continued until present. The Western working methods and corporate culture have been considered important areas to be brought to Estonia and the need for those skills still exists. The old management style of the Estonians is aimed at being replaced by the more modern, Western one but it does not happen fast. One respondent commented how the Estonians have high tolerance for taking risks and that must be controlled at times by bringing more considerateness. Some comments related to the cultural knowledge were:

"At the moment there are two Finnish expatriates in Estonia. They bring there the Finnish procedures and corporate culture. The type of knowledge that is being brought there is basic professional skills and mindset, more Western style of working".

"Perhaps knowledge related to the business culture is being transferred because in Estonia, people are used to fast growth and they have the ability of taking risks, a bit too much sometimes. We have had to transfer "cautious mind" to some extent".

In addition, knowledge transfers are nowadays taking place in various other fields, such as technology, IT and logistics. One expatriate commented how his company has already transferred or is transferring basically everything, except the administration of the concern. These are some of the comments related to present transfers:

"[...]. It could be said that all the above mentioned: IT, product development,

quality, sourcing.. all of those are being transferred."

"In a sense, the whole field is developed and supported from Finland, such as primary production, logistics, finance and so on."

"Technical knowledge, naturally. Every time when something new is developed, it is transferred to the whole concern."

There was clearly less knowledge transferred in the areas of sales and marketing, as well as HRM knowledge. These did not come up in the interviews or the respondents directly stated that they are not primary objectives for knowledge transfers. These functions were managed locally in most of the companies. The respondents commented, for example:

"For example sales and marketing, they function pretty much with local manners."

"There are own policies in HR in Estonia."

Regarding future transfers, however, sales & marketing and HRM knowledge were mentioned. Transferring knowledge in sales and marketing was seen as one method to maintain competitiveness against new competitors. Moreover, further integration was expected in logistics and data administration, for example. As it was mentioned earlier, transfers related to product development will also continue in the future. Comments related to future transfers were, for example:

"In the future, transfers will surely be concentrated more on sales and marketing, as the competitive arena becomes more demanding and foreign rivals enter the markets."

"Common methods in finance and in HRM will surely be developed further and I would believe that we will use more common procedures in the areas of data

administration and logistics in the future."

Some respondents experienced that the present economic turmoil brings uncertainty to the business, making predictions for future transfers quite hard. A lot is dependent on the general market situation and how it will change. That will determine what kind of knowledge will be needed. Furthermore, most of the interviewees had not been working in Estonia or even in the company at the time the business operations started there, therefore comprehensive information of knowledge transfers in the beginning was somewhat limited. All in all, it is difficult to make accurate generalizations of the types of knowledge transfer because they are clearly dependent on the industry sector the company is operating in, as well as on the degree of integration and on the stage of the life cycle the company is currently at in the Estonian unit.

When enquiring of the knowledge transfers from the subsidiary to the headquarters, the findings indicated that a relatively small amount of knowledge is transferred from Estonia to Finland at the moment. For one reason, the respondents stated the general high level of knowledge in Finland. The Finnish business environment was experienced to be so advanced compared to the one in Estonia, so that there was not much to be transferred. One respondent saw this as a real problem. He felt that without Estonia being able to provide knowhow back to the parent company, the Estonians will not totally grasp the idea of knowledge transfer. The comments related to the lack of reverse transfer were as follows:

"It is more from the side of the group, top down. Estonia is not transferring knowhow that much at the moment."

"Estonia and the Estonian organization and corporate culture has quite little to offer towards Finland, which makes the reciprocity a very big challenge. It is challenging to find concrete, distinct components of reciprocity from Estonia to the parent company, and still they are needed. Without them the true meaning of knowledge transfer is not internalized so well within the local organization."

However, there were a few examples of reverse knowledge transfer mentioned. Knowledge related to the learning of doing business in a foreign environment, in general, was the most important one. Estonia has also acted as a stepping stone to other Baltic markets. Knowledge that has been gained from operating in Estonia has been used to entering the other Baltic countries:

> *"Knowledge transfer is more such that the Finns learn to know other markets and procedures better, for example in Estonia. That is really the type of knowledge transfer that can be spoken of."*

In some of the companies, Estonian expatriates had been working in Finland for some time. That can also be considered as one type of reverse knowledge transfer, as they have brought their own knowhow to Finland:

> *"We have had Estonians, for example in IT, we just had one guy who was almost 2 years in Finland learning."*

One company had developed significant marketing knowledge in Estonia. Nevertheless, that knowledge cannot be fully capitalized in Finland due to the Finnish marketing regulations, which are more restricted than in Estonia. Furthermore, some ideas for product development were said to have transferred from Estonia. One respondent explained how the indicators for monitoring production in Finland were taken from their Estonian unit:

> *"This year it was decided that the indicators for production with which the production is being monitored, they were taken from Estonia. They were taken as a foundation for Finland as well."*

All in all, most of the respondents expressed a positive attitude towards the idea of reverse knowledge transfer. One respondent explained how their goal is to constantly search for good examples from all units and take them in use in the parent company. One respondent emphasized the importance of adopting the right attitude, which is to be

open to the possibility that some things are done better in Estonia, instead of believing that all knowledge and know-how must be transferred from the Western organizations to Estonia:

"The goal is to find good performances, examples and changes all the time from everywhere. The pattern can also be so that from Estonia we take a certain procedure in use."

"Here one must be cautious of deploying the "besserwisser" attitude. The Estonians are even ahead of us in certain issues. We do not necessarily always have something to transfer and there is no point in starting to transfer 'by force'. Sometimes the parent companies can learn from their subsidiaries how to manage certain issues differently."

Presentation of the empirical results will continue next with the knowledge transfer mechanisms.

5.2. Mechanisms for knowledge transfer

The mechanisms that are used for transferring knowledge are described in this section. As they were divided in the theory part, first the IT-based mechanisms will be discussed, followed by the people-based mechanisms. It will be described what those mechanisms are, which advantages and disadvantages they provide, as well as what kind of factors affect the choice of mechanism.

5.2.1. IT-based mechanisms

It became evident from most of the interviews that the level of information technology in Estonia is considered to be quite high, in general, and the people there feel

comfortable using different kinds of electronic communication tools. IT-based mechanisms are quite effectively and extensively utilized in the companies interviewed. Comments regarding the people's skills in IT were, for example:

"I would say that, in general, the Estonians are even ahead of Finns when it comes to electronic communication. They would be more willing to exploit different electronic communication tools than the Finns. For example Skype, messenger and chatting, they use more time on them and are more interested in them than at least my Finnish colleagues."

"The Estonians are competent in issues regarding IT. You cannot underestimate their knowhow in these things. The personal skills of many employees are better than the ones of the Finns."

Furthermore, the infrastructure in data communications promotes the use of information technology in Estonia. It is widely utilized in public administration systems. In that sense, the Estonian society enhances knowledge transfers and deployment of knowledge. This might be one reason why the Estonians are quite familiar with the use of IT. One expatriate described the utilization of IT as follows:

"What is positive about Estonia is the fact that there is WLAN throughout the whole country. No matter in which town or hotel you are, it is available. For example in Finland, this is not the case."

"With an ID card you have a direct access to the system of the tax administration where all the information is displayed pre-filled. You also sign it electronically. People also vote here electronically. It has been in use in several elections already."

The IT-based mechanisms, which are used to transfer knowledge from the headquarters in Finland to the subsidiary in Estonia, are for example telephone, e-mail, intranet, web conferences, teleconferences and videoconferences. The most commonly used

mechanisms are the more traditional tools: e-mail and teleconferences. They were mentioned by all interviewees. The respondents described the use of IT-based mechanisms as follows:

> "We have e-mail, intranet and teleconferences. These are the most important tools. Nonetheless, e-mail is used the most in knowledge transfers."

> "Especially teleconferences are used a lot and video conferences are increasing."

> "We have intranet and the possibility to use web conferences, and naturally the e-mail as a traditional tool."

Although in most of the case companies IT tools were extensively utilized, there were a couple of exceptions where the more advanced tools, such as the intranet and video conferences, were not yet in use. However, they were planned to be deployed in the future in some of the companies. The current economic recession has somewhat increased the use of IT-based mechanisms in organizations. Expenses are trying to be minimized and that includes restricting the travelling between units. People are advised to use more teleconferences and video conferences, instead of arranging personal meetings. This trend became apparent in some interviews. One respondent commented:

> "We have now got teleconferences in use because we have to save on travelling expenses as in other firms. Travelling expenses are monitored closely."

The most frequently mentioned **advantages** of employing IT-based mechanisms to transfer knowledge were cost and time efficiency. Time use is easily optimized with the help of IT tools. When travelling is not required, more time can be used for the actual work. This advantage becomes highlighted in projects where continuous contact is needed:

> "Sometimes it is good to use IT-tools, especially when there are projects, which require continuous contact. In that case, the reduction in travelling helps to save

working time for the actual doing and sometimes that can be really significant."

Cost savings are gained when travelling required for the personal contact can be excluded. The speed with which the information can be distributed is also considered as a great asset. Furthermore, a bigger group of people can be reached at the same time. These are some examples of the benefits of IT tools the respondents discussed:

"The advantage is that savings on expenses can be gained when travelling can be avoided."

"The benefits are low cost and speed."

"Information comes quickly and it comes to everyone."

One interviewee commented how IT tools can be used for preparing a case in advance. Sometimes it is more effective to first put your ideas in writing, instead of immediately organizing a meeting and having people come together. Meetings may become more productive if the issues have already been prepared well beforehand. Valuable time is saved also this way. The interviewee explained it like this:

"One advantage with an e-mail is that the written form forces you to formulate your thoughts. I have preferred to start a project in writing, by preparing and giving the proposals in writing. Only after the foundation has been laid, if something remains unclear, then we can meet and discuss the unclear issues. Time can be saved this way."

It was also pointed out that an effective use of IT-based mechanisms requires that there already exists a trusting relationship. There should be a previous, personal contact where the partners have met and talked with each other and built the trust. After the relationship has been formed, there are no limitations for the use of IT mechanisms. The respondent explained this point as follows:

"The effective use of IT tools necessitates a confidential relationship, which has been built there earlier. [...]. When this has been taken care of, afterwards there are no restrictions for the use of IT tools."

The respondents experienced the **disadvantages** of IT-based mechanisms to be the growing number of misinterpretations and the costly investments in the required technology. Moreover, IT-based mechanisms were not considered as reliable and efficient tools to transfer knowledge as people-based ones.

The context is missing when people are not communicating face-to-face and that can increase misinterpretations due to cultural differences. Electronic knowledge transfer is complicated if people do not share a common language. People may use the same concepts but they understand them differently. These issues are highlighted in the absence of personal contact. Moreover, setting up IT systems is costly, therefore changes must be often made little by little. Examples of disadvantages related to these points were:

"When there is the language barrier, it is easier to meet personally. You can explain better and it is easier to ask questions. There will be more misunderstandings when using IT tools."

"If you use only e-mail or even teleconferences, the context is often missing then, in which context the issues are discussed. The cultural differences may affect the level of conversation. The same concepts are used in discussions but the meanings behind them are different. These disadvantages are often highlighted in the absence of face-to-face conversation."

"The IT systems require huge investments when changes are being made. Therefore it is not possible to do everything at once."

It was also noted that information distributed electronically can be more easily forgotten and left unnoticed by the receiver. It was also experienced that when training is given

via IT-based mechanisms, the learning results are often not as good as when training is given personally:

> *"With an e-mail and other electronic communication tools, there is often the problem of forgetting the message and leaving the task undone."*

> *"If you train via telephone, e-mail or web conference, the results are often worse."*

Lastly, it was pointed out that receiving knowledge via electronic tools requires one's own activity. It is often up to the employee himself that the knowledge is searched for and retrieved from the database and ultimately taken in use. One respondent explained how in his company there is a rule that everybody should check the intranet pages every day to learn the newest information. However, it is still up to the employees themselves whether they check the pages or not. Moreover, the amount of information that can be distributed electronically is limitless. It can be a benefit but it can also be a hindrance because people are bound to receive information, which they do not need for their daily functions. It requires some critical and selective thinking to be able to pick the valuable pieces from the information flood and disregard the rest. Comments related to these points were, for example:

> *"The bad side is that it requires your own activity, whether you will or want to check the intranet pages or not."*

> *"The disadvantage is that you receive a lot of information, which is not so important for you. It takes some time and requires activity to browse it through."*

One respondent commented on the difference between knowledge (tieto) and know-how (osaaminen). Knowledge can be easily transferred via electronic devices, without direct personal contact. However, in order to implement that knowledge and to convert it to know-how, which can be applied in use, often requires human interaction:

"For example a power point file sent as an e-mail attachment transmits the knowledge but for to utilize it as knowhow in your daily functions, I have not seen a single case that it would be possible simply via e-mail. In order to implement a real change, a human contact is needed."

This leads us to discuss the people-based mechanisms next.

5.2.2. People-based mechanisms

The people-based mechanisms, which companies use to transfer knowledge, are meetings, seminars, different kinds of trainings (management training, project training, trainee programs), interviews and expatriates:

"We have different kinds of interviews, meetings and conferences. Expatriates have also been used."

"We have expatriates [...]. We have used trainings, such as project training and management training and meetings, naturally."

Another frequently used people-based mechanism, in addition to trainings, is international teams. This was, however, dependent on the organizational structure. In companies where matrix structure was in use, international teams were an essential method to distribute knowledge, as opposed to line organizations where the local CEO was responsible for the business activities. One respondent described the use of international teams in his company in the following manner:

"We have two integration teams [...]. And on the operational level, at least in purchasing, there is an international team that keeps contact. Material purchases are global with strengths combined. Synergy is gained this way."

The respondents experienced that the most important method among all the people-based mechanisms is trainings. This was stressed in every interview. There was one

company, which had its own training unit. This was the biggest concern in the research. The size seems to matter in this case. The bigger companies are most likely to have internal training programs and training units. The significance of trainings was commented like this:

> *"Collaborative training events play a crucial role. We have our own unit, which concentrates on spreading knowledge, in other words, organizing trainings within the firm."*

> *"In my opinion it is significant that there is a model for internal training. It is important to develop it and to combine it with the use of expatriates, could be beneficial."*

One common **advantage** that is included in practically all people-based mechanisms is the trusting relationship, which can be formed between the partners when they are in personal contact with each other. This facilitates the subsequent interaction because with time the communication improves and the risk for possible misunderstandings diminishes. The trust between the parties makes it easier to contact the other person if questions or problems arise. Direct contact with other people is regarded as a best possible method to transfer knowledge, without a doubt:

> *"The advantage is that when you know people personally, it is easier to be in contact and to ask questions and understand other persons. Misunderstandings can be corrected immediately."*

> *"All these direct contacts between people, they are the best ways to communicate and forward things. There is less room for wrong interpretations and it can be seen better if the issues are understood, much better than if it was text or some other form of communication."*

Advantages related to **training**, in particular, were mentioned to be commitment and a better and faster detection of the learning results. Some respondents experienced that

when something is taught personally, there is more commitment to it from the learner's side. The learning results can also be seen faster, if the person has truly understood the material. Some comments related to the advantages of training were:

> *"The benefits of a direct interaction are the personal contact and commitment that follow. When something is taught personally, the learner usually is more committed to it."*

> *"It is always easier to control a group training and how it starts going. The results can be seen better. If training is given via the internet for example, it takes more time to notice if the teaching has succeeded or not."*

The advantage of using **expatriates** to transfer knowledge is that he/she can show personally how to do the work and the teaching can be extended over a long time period. This is a very effective way to transfer knowledge completely and accurately. However, it also requires the expatriate to be persistent in his/her work. Sometimes it can take years to teach the local employees. Usually this is related to cultural or management knowledge, such as teaching the locals team working skills and self-initiative. Expatriates can transfer these types of knowledge very effectively and they are often the only viable method to do it. The respondents' comments reflected the important role of the expatriates as teachers of cultural issues:

> *"A different kind of working style is shown via an example and knowledge is being transferred with a long-term effect. Goals are achieved with the help of perseverance and examples during a long time span."*

> *"It brings the presence and the working culture of the parent company to the subsidiaries."*

The use of **international teams** was experienced to be very beneficial. Every team member's understanding is being developed when information is exchanged as equal affiliates of the team. Meanwhile, the one-sided image of Finland being the only party

to bring knowledge can be eliminated. Interviews were also said to have the same purpose. When the local employees are asked about different issues, their opinions are taken into consideration, instead of forcing the Finnish way to do things. It builds up the dignity of the local employees when they are treated as equal knowledge providers. One respondent commented the use of international teams as follows:

"We have international teams with 5 countries and it is a true richness. The development comes from all of these countries to the team, instead of trying to say that all the knowledge and knowhow is in Finland. That is definitely not the case. This industry develops so fast that new ideas and innovation are needed all the time."

All in all, it was emphasized how important direct interaction and communication between people are in knowledge transfers. The importance only increases when there is a foreign culture involved. People-based mechanisms were clearly experienced to be more effective in knowledge transfers than IT-based ones. The respondents stressed the significance of communication and direct interaction as follows:

"Communication and the amount of communication can never be underestimated. It is crucial that issues are communicated on as many levels as possible and as deeply as possible. When you are working outside of Finland, in a different culture, the number of misunderstandings can get quite high. And if it is combined with a bad communication, it means a lot of trouble."

"Going through an issue face-to-face is surely more effective than via some IT system."

The most common mentioned **disadvantages** of using people-based mechanisms were their expensiveness and the fact that they are time-consuming. Usually, the personal contact between people requires travelling and that consumes both time and money:

"Travelling expenses are the weakest link in direct interaction. Naturally, one

should strive for optimizing them."

"Travelling is expensive and it takes time. There are not many other negative sides, in my opinion. There are more positive things if only time and money is invested."

It stood out from the interviews that trust is an important factor for relationship building. If for some reason the trust cannot be built, it hinders the effortless interaction. If mutual respect is missing, people-based mechanisms cannot be utilized to the fullest. The respect has to come from both the side of the Finnish employee, as well as from the side of the Estonian employee. According to some respondents, improvement is needed in how the local knowledge is valued but also in how the local employees regard people coming from another culture, in some cases:

"If you do not respect the local knowhow, then the trust will never be formed. I would say that in personal relations the key is whether the trust exists or does not exist."

"If an expatriate is used in a new environment, it may cause difficulties relating to how new practices and people coming from outside are regarded in the newly acquired firm. It has been noted that there is still some development to be done in the use of expatriates and above all, the attitude towards people coming from a different country and culture could be more neutral and receptive as it is now."

In addition to the respect towards the local people and their know-how, an expatriate must possess the right characteristics. He must know the business very well, naturally, but also have people skills and teaching skills. One of the key roles of an expatriate often is to be the knowledge transferor. He must have competence in delivering that knowledge and at the same time, take into consideration the cultural differences in people. Therefore, the selection of an expatriate who will be sent abroad should be done carefully. The respondents explained how they have experienced wrong expatriate choices and what is required from an instructor:

"We have had bad experiences also. We have sent wrong people as expatriates. That person has perhaps not understood his position and how he must behave, that he is a business card of the headquarters at that moment. But that happens quite rarely. There are mostly positive things. With the expatriate selection we aim at choosing a person with a very open and social personality who knows the firm's processes well."

"If there are groups from many countries, it requires the instructor to know more than just the material he is teaching. He must know the cultural background and the history. He must know which way is the best to teach and transfer that knowledge."

Findings related to the choice of mechanism will be presented next.

5.2.3. Factors affecting the choice of mechanism

When deciding on the mechanism for knowledge transfer, issues such as geographical distance, recipient of knowledge and type of knowledge were affecting factors among the respondents. Particularly the nature of knowledge impacted the selection.

It has been stated in literature that the further the location where the knowledge needs to be transferred to, the more challenging it is to use people-based mechanisms (Jasimuddin 2007). It stood out from the interviews that the short distance between Estonia and Finland facilitates and encourages the use of soft tools. Given the distance between these two countries, organizing personal meetings is not always regarded as such a big expenditure considering the benefits they bring. Estonia is the neighboring country of Finland, so naturally it is easier to use people-based mechanisms in this context than in any other:

"We are this close to Finland and the distance is short. Personal contact is much easier to arrange, compared to the Eastern Central Europe: Romania and Hungary for example, where the distance is significantly longer. It is much more

challenging to transfer knowledge there."

"The distance between Finland and Estonia is so short that quite often it is convenient to arrange the meeting face-to-face."

Regarding the recipients of knowledge to whom the knowledge is transferred, the affecting factor is whether the knowledge receiver is an office worker or a shopfloor worker**.** Usually, all the office workers have their personal computers. Therefore, knowledge can be easily distributed using IT-based mechanisms. However, shopfloor workers seldom have their own computers, thus people-based mechanisms, such as trainings, are often the only viable method to transfer knowledge to them. As one respondent explained this:

"The biggest difference in communication is between office workers and shopfloor workers. All the office workers have their own personal computers but when you go to the level of a shopfloor worker, the only methods to transfer knowledge in practice are personal trainings or meetings."

In most cases, the mechanism is chosen based on the type of the transferred knowledge. If knowledge is simple and can be easily expressed in a written format, IT-based mechanisms are most likely utilized. Whereas, it is a question of transferring tacit knowledge or generating bigger changes in the work environment, such as implementing a new process, then soft tools are the preferred choice:

"The nature of knowledge affects so that IT tools are used for the transfer of small issues and technical details, which can easily be expressed in a written format. But direct interaction is better for bigger things and for implementing changes."

"The use of electronic tool is good at the management level, for the control and managing the transfer project itself. Personal meetings are not necessarily required in that case. But when the nature of the transferred knowledge changes into knowhow and something that is in people's heads, then IT tools cannot

replace the personal contact, at least not completely. It is very difficult to transfer
tacit knowledge electronically."

It is not always a question of which one type of mechanism to select but in some cases a combination of both hard tools and soft tools is the best solution. The IT tools are often used to support the knowledge transfer but in order to truly transmit the message, direct interaction is needed. IT tools must be combined with people-based tools, in some cases. One respondent explained how written text is not sufficient without human interaction:

"Manuals alone are not enough if there is nobody here to take them in use and
give guidance. [...]. Manuals only act as a support".

The challenges encountered in knowledge transfers will be presented next.

5.3. Challenges in knowledge transfers

This last section describes the challenges that are faced in knowledge transfers. The issues, which came up in the interviews, are divided according to the four main categories in the research of Riusala and Suutari (2004): characteristics of knowledge, the social context, the organizational context and the relational context. The respondents mainly discussed the social and organizational contexts of the host country. Culture-related challenges and the willingness of the older generation to receive and absorb knowledge were experienced to cause the most problems in knowledge transfers from Finland to Estonia.

To begin with, it emerged from the interviews that challenges in knowledge transfers between the parent company and the foreign unit do not always relate to the context of knowledge transfers or to the characteristics of knowledge, but to the organizational structures of the company. Especially in large organizations can emerge the problem of

not knowing where and with whom the needed knowledge is located. This emphasizes the importance of effective knowledge management systems so that the information would be readily available for everyone. One expatriate explained the sometimes difficult equation of knowledge in a large organization:

"When the company is big enough and there are many parties involved, as simple thing as not knowing where to turn to when knowledge is needed, often causes challenges. We have aimed at having as simple and straightforward organizational structures so that the communication would be as easy as possible. But when there are so many parties involved, combined with the organizational changes occurring in specific time intervals, it creates challenges for the communication as well."

Regarding the **characteristics of knowledge**, it was noted how especially tacit knowledge brings challenges to the knowledge transfer. The most valuable knowledge often lies in knowledgeable employees who have worked in the company for a long time and who know the business thoroughly. Knowledge embedded in experience and practice is experienced problematic to transfer. This refers to the low codifiability of knowledge. That type of knowledge is hard to make explicit. Some respondents described to complexity of transferring tacit knowledge:

"Our firm is 40 years old and some people have been working here since then. It is very difficult to transfer knowhow gained through experience. Everyone must learn new things and I would say that in every task, experience has an extremely high value. That cannot be transferred."

"It certainly is the nature of knowledge. All knowledge cannot be found in books. It is still relatively easy to transfer knowledge, which is printed and in a process, but to transfer tacit knowledge, that is time-consuming."

Social context includes challenges related to the legislation, the language and cultural factors in the host country. Regarding the regulatory environment in Estonia, the

respondents pointed out that the situation has improved from the earlier years. The fact that Estonia became a member of the European Union some years ago has simplified business from the legislative point of view. It has unified laws and regulations, thus removed some obstacles from the knowledge transfer processes. However, there still remain some national regulations, which differ from the equivalent Finnish ones and which have caused impediments to the transfer of certain issues. As it was stated in the earlier section of knowledge transfers from Estonia to Finland, challenges related to the legislation thwarted also the reverse knowledge transfers, an example being the differing marketing regulations between the two countries. Respondents commented impediments related to the legislation, for example:

"When Estonia became independent, the foundation for many legislative issues was taken from Germany's legislation, which is very different in structure and in logic compared to the Finnish legislation. [...] These types of things have been continuously complicating the understanding, that we just cannot do this in a Finnish way because the Estonian legislation does not allow it."

"The national legislation in Estonia is different from the one in Finland, relating to financial administration, production, and many other areas that may not be even thought of. [...]. That can pose restrictions."

Language problems among cultural barriers were also experienced to impede the knowledge transfer in some cases. Some respondents explained how finding a common language is not always self-evident in Estonia. Not every Estonian employee possesses strong Finnish or English skills, despite the common image people often have in Finland. The Estonians who live in the Tallinn region are more likely to be fluent in foreign languages than those who live in the other areas of the country. Some of the companies interviewed are located outside the capital city. Language skills of both parties are essential in getting the message through correctly and if those skills are missing, it will inevitably hinder knowledge transfer:

"If there is not a proper language proficiency in the organization, transferring

knowledge is very difficult no matter what kind of courses, teachers and manuals there are. The key is to have a shared language."

"The proficiency in English is not self-evident in Estonia. Estonian and Russian languages are much stronger than English. It means that there can be difficulties in transferring knowledge and knowhow if a shared language does not exist."

Related to the cultural context of Estonia, a greater power distance was discussed as one challenge. The organizational structure is more hierarchical and managers are expected to have all the power and knowledge. The subordinates are used to be given orders by managers, which prevents the self-initiative. People are cautious in expressing their own ideas and opinions freely. The respondents described the management culture in Estonia as follows:

"People have got used to a very authoritative management style and the self-initiative has been forbidden."

"There is a so called old-fashioned management culture in Estonia. If the manager says it, it is a much stronger signal than if for example a colleague on the same level says it.

"In Estonia and Russia, there is the problem of getting people involved with improvements. People are withdrawn in a way and in those countries it is an insult if you make a suggestion for improvement, which someone else perhaps should have made. When you talk with employees and the manager comes by, everybody gets quiet. Nobody says anything after that."

Many respondents discussed the previous Soviet era in Estonia and how it has influenced the people there. Traces of that former regime can still be seen in people's behavior. One respondent explained how the Estonians may reject knowledge brought from outside because it can be associated with the former centralized government, which imposed strict rules in the society. When the Western organizations enter Estonia

with their own values and practices and start implementing them, the Estonians might regard it as somebody dictating what to do and how to be, all over again:

"Naturally we are all outcomes of our history and the long-term Soviet history of Estonia has left its mark in the values of the Estonians. It is a very big challenge nowadays to find the supportive factors from the values, which the Estonians can genuinely relate to. Management and knowhow brought from outside are easily associated with the centralized governance of Moscow in history and that usually causes negativity."

When the respondents commented on the culture-related challenges in knowledge transfers, there was a clear distinction made between the younger generation who has not worked in the Soviet era and the older generation who has experienced it. The older people are still affected by the history and it shows in their resistance to change, for example. The younger people are more adaptive and they have a different mindset, such as a more positive attitude to new things. This is how one respondent commented this topic:

"Younger people are more open-minded because they have seen more than just the Soviet Union. When the Baltic was under control of the Soviet Union, everything was quite restricted. The knowledge was tightly controlled. Many older people who are still working in the Baltic countries have been brainwashed during the Soviet Union, so that it is not easy to change their attitude. The younger people are more flexible and they have a different attitude to new things."

Several respondents stressed the importance of having the right attitude when entering Estonia. The wrong approach is to go there to teach with the idea that all the knowledge lies in the West and has to be transferred to Estonia. That kind of attitude may remind the local people of the old Soviet era when people were closely monitored, thus causing negativity towards the Western-owned companies. Knowledge must be introduced to the local employees in the right way with an explanation of the reasons why it is done.

Expatriates have to be aware of the cultural issues in Estonia if they want to succeed in their work. The respondents commented this topic as follows:

"Regarding knowledge transfer, it is so important that you understand the culture where you are in. The biggest mistake is to go there to teach with the big brother attitude. It only leads to resistance. Many Finnish companies have made that mistake."

"It is so much easier if you know the historical backgrounds. The challenges stem from having the wrong attitude. The Germans, the Swedish and the Russians have always entered by commanding. If you take the same attitude, you will bang your head against the wall."

Challenges related to the organizational context of the host unit are discussed next.

Organizational context includes for example the receiving unit's willingness and ability to receive and absorb new knowledge. These are key factors in completing the transfer process. Knowledge receivers should be willing to accept the knowledge and be able to implement it. As one respondent commented this:

"[...]. Another thing is motivation. Where the knowledge is transferred to, the people there must be willing to take it in use and act according to this new procedure. These things usually take time. They do not happen in a blink of an eye or just by snapping your fingers."

When inquiring of the willingness and ability of the host unit to receive knowledge, it was noted that the Estonians are not very open in absorbing new knowledge. They prefer to do things in their own way and act a bit hesitative towards implementing new things. Therefore, some monitoring is often required after meetings to ensure that the decisions truly are implemented. The comments related to the willingness of the host unit to receive and absorb new knowledge were as follows:

"The Estonians here are not so open towards absorbing new things. There is a little bit of problem in that. People act a bit suspicious when it comes to new things. It is harder to implement. […]. You must be in contact afterwards to make sure that it proceeds as agreed."

"If there is no long-term follow-up, these things do not progress from the level of talking and that is acceptable there."

However, there was a clear distinction made again between the younger generation and the older generation. The younger people in the unit are well-educated and very eager to learn new things and implement them. Their motivation makes the knowledge transfer a very easy and rewarding task. The older people in the unit are more likely to be reluctant to receive and absorb new knowledge due to the Soviet culture, which regarded knowledge as a tool for power. There was one comparison made about the learning culture between Estonia and Finland. In Finland, people usually are quite cautious in taking some new procedure in use and it happens only after a lot of preparation, discussion and planning. In Estonia, the approach is much more active with the attitude of 'learning by doing'. People want to test and experiment new things immediately and see if they work or not. Regarding the motivation to receive and absorb new knowledge, this is how one respondent commented the differences between the younger people and the older people in the unit:

"Those employees who were working when there still was the Soviet regime, the borderline goes there. The younger and the older are in different worlds. Those who were brought up in the Soviet culture were taught that knowledge is power and a bargaining tool with which to secure your own position. And against this notion, it is understandable that they are not willing to share knowledge. But they have also learned that somebody tells you what to do, so they are not very motivated to receive, absorb and utilize knowledge. The younger employees, on the other hand, have received an education with teaching of the market economy and such. They are very international, skilled in languages, very motivated to study, very active in absorbing all new things and implementing them right

away."

Nonetheless, it was pointed out that the attitudes have gradually started to change in the older generation, as well. For some of the companies interviewed, the different mindset of the older employees has not been a relevant issue because they employ mostly younger employees. As one respondent described this:

"[…]. A difference in generations can be seen. […]. But in our unit, we have mostly younger employees so that has not caused a challenge in our transfers. At the moment, it can be said that the younger employees are motivated, they want to learn new things and changes are fairly easy to pull through."

Lastly, the relational context will be discussed.

Relational context includes for example the employees' commitment towards the organization they work for. There were not major challenges related to the parent-subsidiary relations based on the interviews. On the contrary, the respondents had mostly positive things to say about the relationship between the parent and the subsidiary. The situation has only improved in this regard. One positive change, which has directly affected the commitment of the local employees towards their foreign employers, is the change in the turnover of personnel. Previously the employee turnover used to be very high because of the economic boom in Estonia that was going on until recently. People were constantly searching for better positions with better salaries and they changed jobs easily. The commitment was very low from the side of the Estonian employee. Organizations were all the time facing the risk of key people walking out of the company. Nowadays, due to the economic decline, the situation has improved in the sense that employee turnover has significantly lowered. The deteriorated employment has gotten people more cautious and more committed to their current employer. The increased commitment, for one, has facilitated knowledge transfers for the foreign organizations. The comments related to the lower staff turnover were, for example:

"High staff turnover used to be a problem before. People would not stay but

changed jobs a lot. The affecting factor was the economic boom, which led to higher salaries. People aimed at optimizing their salary. But now it has calmed down. The situation now is totally different than for example a year ago."

"People stay in projects and are motivated and want to work for the company, whereas before, there was the constant fear of key people switching to another firm in a second. That way it has facilitated knowledge transfers for our part."

Finally, related to the challenges in general, one respondent pointed out the fact that whenever business is conducted in a foreign environment, there will always be problems involved. No matter the location, companies will inevitably face more challenges than in the domestic arena. The amount of challenges tends to be dependent on the distance from the home country. The further the location, the more challenges, and vice versa. As the respondent commented:

"Doing business in an international environment is perhaps something that is not necessarily well understood in Finland. It is not understood what it means in practice to do business in a foreign country, in a foreign culture and with a language barrier. Although Estonia is close to Finland, there are the same types of challenges even here."

After having presented the empirical findings, the conclusions will follow in the next chapter. Contribution of the study and suggestions for further research are also given at the end of the chapter.

6. CONCLUSIONS

In this final chapter, the main findings based on the empirical data of this research will be discussed. Contribution of the study will also be indicated and suggestions for further research will be offered. The purpose of this research was to investigate: 1) what types of knowledge are transferred from the headquarters in Finland to the Estonian subsidiary with the time perspective included: types of knowledge transfer in the past, present and predictions for the future, 2) what kinds of mechanisms are used for transferring such knowledge and what factors explain their use, and 3) what kind of challenges are encountered in knowledge transfers.

Relating to the first objective, the type of knowledge that is transferred from the headquarters to the Estonian unit was dependent on several factors, such as, the industrial sector of the company and the time the company had been operating in Estonia – the stage of integration. According to the respondents interviewed, nearly all know-how was transferred in the beginning. This is logical because the transfer need is the highest then as all the processes and procedures must be transferred to the new unit. Among the first types of knowledge was productional knowledge – the production system had to be upgraded to the same level with the concern. Product-related knowledge, R&D, also began at an early stage, together with cultural knowledge. Transfer of corporate values and the Western management style and procedures have continued until present. That type of knowledge is considered important and the need for it still exists. Today, knowledge transfers take place in several other areas as well, such as technical, financial and product development. The least amount of knowledge transfer occurs in marketing and HRM. In the future, product related knowledge is expected to be continued. Furthermore, transfers in sales and marketing will potentially be increased if the need arises. That depends on how the general market situation changes. All in all, predictions for the future transfer needs were experienced to be somewhat difficult, partly due to the economic turmoil that is ongoing at the moment.

Knowledge transfers from Estonia to Finland are still quite minimal. The most

important type of reverse knowledge transfer can be said to be the general knowledge and know-how of conducting business in a foreign market. Especially in the case of Estonia, the country also acts as a kind of training arena for the organizations on their way to the other Baltic countries, which are more demanding markets to do business in. It can be questioned to what extent the local knowhow in Estonia is truly exploited. Particularly, the younger employees are well-educated and innovative, very motivated to learn and to develop themselves professionally. It could be assumed that more opportunities would exist for the flow of knowledge to the other direction, as well - from Estonia to Finland.

It can be concluded from the interviews that Estonia is a quite advanced society when it comes to utilizing information technology. Some respondents experienced that Estonia is even ahead of Finland in deploying IT. Moreover, Estonians willingly use different kinds of IT tools in their work. The fairly high usage of IT in Estonia was a somewhat surprising finding. Relating to the second objective, the most frequently used IT-based mechanisms to transfer knowledge to the Estonian units are the traditional tools e-mail and teleconferences. The more advanced communication tools, such as web conferences and video conferences, are also quite extensively used. The advantages of using IT-based mechanisms to transfer knowledge were stated to be high velocity and time efficiency. Knowledge can be distributed to a large group of people at one time and at a fast rate, and time and money is saved when the travelling required for the personal meeting can be eliminated. These findings are congruent with the earlier research (for example Goh 2002; Davenport & Prusak 1998; Roberts 2000). A new angle to the perspective of time saving was to use the IT tools for advance preparations when starting a new project, for example.

The disadvantages of IT mechanisms include the missing context, which increases misunderstandings. Particularly, if the knowledge sender and receiver do not share a common language, it is easy to misinterpret the message. Furthermore, IT tools are not considered as so reliable because an e-mail, for example, is more easily forgotten and may not lead to action. It was highlighted that often the personal contact is required before the use of IT mechanisms. Knowledge transfers can be completed more

effectively with IT tools if there has been a previous personal contact and the trust has developed between the parties. The need for personal interaction prior the use of IT mechanisms is supported by previous research (Jasimuddin 2005). The importance of trust building in social interactions, which naturally is missing when using IT tools, is also emphasized by Davenport & Prusak (1998), in literature. Many respondents experienced that using solely IT mechanisms is not sufficient for an effective knowledge transfer. Dixon (2000) and Albino et al. (2004) have also stated this.

People-based mechanisms were extensively used by companies, examples being expatriates, international teams, meetings, interviews and seminars. The most often used mechanism was trainings. That was also considered to be the most effective method to transfer knowledge, as it has been proposed in literature (for example Davenport & Prusak 1998). The advantages of people-based mechanisms include what the IT mechanisms lack. When people are in personal interaction with each other, it allows a relationship to be formed, which facilitates future contacts - either via people or IT. Misunderstandings decrease when unclear issues can be solved instantly. Moreover, the results can be seen faster, if the training has succeeded or not. The most significant disadvantages of people-based mechanisms are related to the travelling that is required to bring people together from different locations. It is costly and it takes time, which delays the transmission of knowledge. Roberts (2000) has discovered these same disadvantages: Knowledge transfer becomes complicated because the parties involved must be at the same place, at the same time, and the transfer process becomes slower when using people-based mechanisms.

People-based mechanisms were clearly experienced to be the most efficient and effective tools to transfer knowledge. The respondents experienced that the direct interaction between people cannot be replaced by any other mechanism. This has also been stated by Dixon (2000). The usefulness of personal interaction is highlighted when the transfers take place between different country contexts. Nevertheless, many organizations are nowadays, during an economic decline, instructing their employees to use more IT tools in order to cut down the travelling expenses. Video conferences and teleconferences, in particular, have thus become essential tools for communicating with

foreign units.

Based on the interviews, it can be concluded that the country context does not really have an effect on whether people-based or IT-based mechanisms work better in Estonia. Estonia is a more collectivist culture than Finland and in those kinds of cultures people-based mechanisms are usually favored, and it is more natural to use them. However, this kind of apparent preference for people-based tools based on cultural factors is not evident in Estonia. People-based mechanisms are preferred because they transmit the knowledge better than any other tool. It has been proposed in literature that IT mechanisms have a key role in the transfer of organizational knowledge (Alavi & Leidner 2001), however, in this research the people-based mechanisms were clearly given more emphasis.

It emerged from the interviews that the most important factor affecting the choice of mechanism is the type of knowledge. According to literature as well, it is a crucial factor (for example Smale 2008 b; Goh 2002). When knowledge is simple and explicit - expressible in a written format - IT mechanisms are used. Whereas, the knowledge is more complex, tacit knowledge in people's brains or embedded in processes and when the aim is to generate bigger changes, people-based tools are chosen. Many authors in literature have also divided the use of mechanisms according to the nature of knowledge: Explicit knowledge is the most effectively transferred with IT tools and tacit knowledge with soft tools (for example Inkpen & Dinur 1998; Goh 2002; Davenport & Prusak 1998).

It can be concluded that often IT mechanisms act as support tools in knowledge transfers when the actual transfer takes place via people-based mechanisms. IT tools are used for reporting, monitoring and for the general management of a project. Whereas, people-based mechanisms are deployed when the project is initiated and when fundamental changes must be introduced and the related knowledge / know-how must be implemented. This supports the hybrid strategy in literature (Jasimuddin 2008; Jasimuddin et al. 2005 a) that both types of mechanisms are needed in many cases and by combining these two types of tools, the outcome of the knowledge transfer process

can be optimized.

Relating to the third objective, it emerged from the interviews that transferring knowledge across borders is always problematic, no matter the context. Even when the location of the foreign unit is in the neighboring country, challenges are encountered. Differing formal (e.g. laws and regulations) and informal (e.g. norms and culture) institutions of the host country bring challenges to knowledge transfers. Challenges experienced in Estonia were mostly related to the social and organizational context of the host country: to the cultural issues and to the motivation of the host unit to receive and absorb knowledge. The cultural challenges originate from the former socialism when people were closely monitored and the individual freedom was restricted. This refers to the authoritative management culture that was seen as one impediment. Managers are the ones who are assumed to have the power and knowledge, therefore innovativeness and self-initiative of the subordinates may not be particularly encouraged.

The willingness to receive and absorb new knowledge, as well as how changes are regarded, are seen as a major challenge in Estonia. This applies to the older generation, in particular. The differences between the younger and the older generations were highly emphasized. The older employees are less motivated to learn new things and prefer to maintain things as the way they are. The younger people, on the other hand, are very motivated to learn and absorb new things and to develop themselves professionally. There still exists a generation gap between those who have worked in the Soviet organizations and those who have not, although the gap is diminishing gradually.

The findings of this research concerning the challenges are quite in line with the earlier research by Smale and Suutari (2008) of the knowledge transfers from Finland to Estonia and Czech Republic. Greater power distance was discovered to impede knowledge transfers, whereas the organizational culture was noticed to be good with a positive attitude towards learning and innovation. Only in this research, the generation gap was more strongly brought forth – how in general the younger people support knowledge transfers, whereas the older generation hinders them to some extent. One

significant change had occurred in the commitment towards the parent company in regard to personnel turnover. In the earlier research by Smale & Suutari (2008), it was discovered that a high personnel turnover represented a big problem. At that time, the Estonia was experiencing an economic boom so jobs were abundantly available. People easily changed firms for a better position. Key knowledge was easily lost then. Today, the situation has changed completely as the economy is experiencing a downturn. Employees want to hold on to their jobs, therefore there is more commitment towards the employer and the knowledge is more likely to stay in the company. This has facilitated knowledge transfers to Estonia.

The scientific contribution of this study relates to the deeper investigation of the two types of mechanisms used to transfer knowledge to Estonia – the advantages and disadvantages they provide, and the factors explaining their use. The contribution to the corporate world includes guidelines on how to conduct business in Estonia, as well as in a foreign environment in general.

Estonia is the neighboring country of Finland, thus it is often regarded as an easy context to do business in. Companies are not always prepared to encounter problems in a context so close to Finland. Yet, there are challenges as in every foreign environment. The former socialism has impacted the business culture in Estonia and some of the challenges faced today stem from that era. The history of the country has influenced people's behavior and that should be taken into consideration when doing business in Estonia. Exploring the history and culture of the country is useful in order to better know how new things are best introduced and how the knowledge transfer is best completed.

The differences between younger and older employees should be acknowledged. The younger employees usually are very motivated and eager to learn new things. That initiative and willingness to experiment should be supported although the number of mistakes might increase to some extent. Furthermore, the competence in the use of IT of the employees should be utilized in cases where knowledge can be easily transferred with IT. In general also, attention should be paid to the type of knowledge and which

mechanism it is transferred with. Sometimes IT-based mechanisms are perfectly enough to get the message through but sometimes direct interaction is also needed, either a people-based mechanism alone or that combined with an IT-based one. By first taking a moment to really think about how the transfer can be best completed, helps achieving the optimal outcome.

As the older people can be more skeptical towards new knowledge and might not be very motivated to implement new procedures and take them in use, it is important to explain to them thoroughly what the new procedures are, why they are being implemented and how they will potentially lighten their workload. This kind of approach, instead of only informing them of the coming changes, can significantly decrease the older employees' resistance to new things. Having the right attitude, in general, is vital too. "Finland-centered" thinking should be avoided. The approach should not be only going there to teach and give orders but to acknowledge and respect the local know-how and the local insight of doing business in that environment, and to utilize it whenever possible. That makes the local employees feel appreciated and transmits the message that their work contribution to the organization is valuable. These are important points especially for the expatriates going to Estonia.

This research was conducted from the point of view of the Finnish managers who had experience of working in Estonia. It would be interesting to study the same themes but from the perspective of the local employees / managers in Estonia - how they experience the knowledge transfers from the West and how they relate to working in a Western organization. Different viewpoints could be expected as a result. Furthermore, interesting would also be to conduct the same research but with a different country context, such as with the newest EU members Romania and Bulgaria. Estonia is considered to be the most advanced country among the CEE countries - Romania and Bulgaria, on the other hand, among the less developed ones. It would be intriguing to compare the results between these two country contexts (Estonia vs. Romania / Bulgaria), how much there would be differences in the amount and type of knowledge transferred and challenges faced.

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APPENDIXES

Appendix 1. The framework of interview.

Background information of the interviewee
- age
- education
- position / task during the assignment in Estonia
- work experience in Estonia (duration)

Background information of the company
- industry
- size of the concern and the Estonian unit (personnel)
- operation time in Estonia

How much knowledge is transferred from the headquarters to the foreign units?
> To what extent the parent company and the subsidiaries are globally integrated / to what extent the subsidiaries are independent units?

What type of knowledge is transferred?
- What type of knowledge is transferred from Finland to Estonia at the moment? What about from Estonia to Finland?
- How has the knowledge transfer (type / amount) changed during the years, when the business operations had only started in Estonia, compared to the situation today? How is it expected to be in the future?

The mechanisms used in knowledge transfers
- With what types of mechanisms knowledge transfers take place from Finland to Estonia?
  - *IT-based mechanisms*: What kinds of mechanisms are used, what type of knowledge is transferred with them, what are the advantages and disadvantages of using these kinds of mechanisms to transfer knowledge?

- *People-based mechanisms*: What kinds of mechanisms are used, what type of knowledge is transferred with them, what are the advantages and disadvantages of using these kinds of mechanisms to transfer knowledge?

- Which mechanisms are experienced to be the most effective in knowledge transfer and which ones the least effective? For what reason?

- Which factors affect the decision to use a certain type of mechanism?

Challenges in knowledge transfers
- What kinds of challenges are experienced in knowledge transfers?

Have there been problems due to, for example:
- Type of knowledge transferred
- Cultural context of Estonia
- Motivation and ability of the Estonian unit to receive and absorb knowledge
- Attitude of the Estonian unit towards the Western organization