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KNOWLEDGE MANAGEMENT AND SHARING IN MULTICULTURAL SME COMPANIES

Case: Ziliot International Ltd

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Abstract

The objective of this research was to find out strengths and weaknesses in knowledge sharing and management between employees of Ziliot International Ltd.

The research method is qualitative and the approach is a case study. The theoretical part of the research consists of theories on knowledge, knowledge sharing and knowledge management. The main theme of the theory covers knowledge sharing and knowledge management in communities of practice, together with theory on effective communication in communities of practice. The empirical data was collected through semi-structured face-to-face interviews. Purpose of the interviews was to gather information about employees' experiences of knowledge sharing and knowledge management in the case company.

The results of the interviews point out that the challenges in the knowledge sharing and the knowledge management are caused by the multicultural environment of the case company leading to difficulties in communication, and also by the structure of case company's management. The interviewees experienced challenges in sharing tacit knowledge in an environment in which forming trust relationships between employees is done partially in ITC-applications. Regardless of these challenges, similarities in the age structure and attitudes of the employees enabled forming of self-managing community of practice enhancing effectiveness of the work.

The main conclusion is that weaknesses in the knowledge sharing and the knowledge management caused difficulties in clarifying the common practice and the common goal. Insecurity towards the abilities of the management to guide the community of practice could be fixed by improving the communication within the management and by improving the knowledge sharing process within the community of practice itself.

Keywords
Knowledge management, knowledge sharing, SME organization, international, communities of practice

Miscellaneous

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Tiivistelmä

Tämän tutkimuksen tarkoituksena oli selvittää tiedon ja tietämyksen johtamisen ja jakamisen heikkoudet ja vaikeudet Ziliot International Oy:n työntekijöiden välillä.

Tutkimusote on kvalitatiivinen ja tutkimusmenetelmä tapaustutkimus. Tutkimuksen teoreettinen osuus koostuu katsauksesta tiedon ja tietämyksen johtamisen sekä jakamisen teoriaan. Pääteemana toimii tiedon sekä tietämyksen johtaminen ja jakaminen tietoyhteisöissä sekä tietoyhteisöjen välinen tiedon ja tietämyksen kommunikointi. Tutkimuksen empiirinen aineisto kerättiin puolistrukturoitujen suullisten haastatteluiden avulla. Tutkimuksessa haastateltiin toimeksiantajayrityksen työntekijöitä syksyn 2012 aikana. Haastatteluiden tarkoituksena oli saada tietoa työntekijöiden kokemuksista tiedon ja tietämyksen johtamisen sekä jakamisen suhteen.

Tutkimustulosten mukaan yrityksen haasteet tietämyksen jakamisessa ja johtamisessa johtuvat monikulttuurisesta ympäristöstä, joka vaikeuttaa sisäistä kommunikaatiota sekä yrityksen johdon rakenteesta. Työntekijät kokivat haasteelliseksi jakaa hiljaista tietoa ympäristössä, jossa luottamussuhteiden luonti työntekijöiden kesken tapahtuu osittain ICT -sovelluksien avulla. Haasteista huolimatta, työntekijät olivat ikärakenteensa sekä samankaltaisten asenteidensa ja uskomustensa avulla onnistuneet luomaan itsenäisen käytäntöyhteisön, joka parantaa työteon sujuvuutta.

Johtopäätöksenä todettakoon, että heikkoudet tietämyksen jakamissa ja johtamisessa vaikeuttavat yhteisen työnkuvan sekä tavoitteiden selkeyttämistä. Epävarmuus johdon kykyihin ohjata käytäntöyhteisöä voitaisiin korjata kehittämällä johdon keskeistä kommunikaatiota sekä tapoja joilla käytäntöyhteisön jäsenet jakavat tietoa keskenään.

Avainsanat (asiasanat)
Tietämyksen hallinta, tietämyksen jakaminen, PK-yritys, kansainvälisyys, käytäntöyhteisö

Muut tiedot

CONTENTS

FIGURES

1 INTRODUCTION

1.1 Knowledge management as a source of competitive advantage

The effect of knowledge on business performance has been acknowledged since the mid-1970s when economies and society in general became more information and knowledge intensive. Industries turning into more information and knowledge orientated replaced manufacturing industries and created a new economy of wealth creation. However, links between knowledge and business performance became more and more obvious only in the late 1980s after the beginning of the virtualization of information at the beginning of the decade. In 1988, Shoshana Zuborff suggested that advances in computer technology had the potential to make work more knowledge and skill intensive, through potential for problem solving (Hislop, 2009, 3-6). Regardless of the fact that already in the early 1960s Peter Drucker coined the term “knowledge worked”, it took nearly 30 more years for the popularization of knowledge management practices in the 1990s (Dalkir, 2011, 3-4). This interest is visible through an exponential increase in the number of academic articles and books published on the topic of knowledge management (Hislop, 2009, 7).

Knowledge management has been slowly developing the decades and even today there is no single definition of what knowledge management is. In my opinion Karl Wiig gave a fitting holistic definition of knowledge included in his definition of knowledge management. His definition, “Knowledge – the insight, understanding, and practical know-how that we all possess–is the fundamental resource that allows us to function intelligently.” Wiig (1993) explains well how knowledge is the key element for conscious actions and the absolute necessity when making educated decisions. Knowledge has been defined as “justified true belief” by Plato himself. However, for establishing a more concrete definition of the knowledge management, a more holistic definition seems to be necessary. Throughout the history of knowledge management, there have been several definitions of what knowledge management is and still, there is no one true answer. However, with all the definitions there has been a general understanding of the criteria of knowledge management objectives has been formed. According to Dalkir, these objectives are:

- Facilitate a smooth transition from those retiring to their successors who are recruited to fill their positions
- Minimize loss of corporate memory due to attrition and retirement
- Identify critical resources and critical areas of knowledge so that the corporation knows what it knows and does it well – and why
- Build up a toolkit of methods that can be used with individuals, with groups, and with the organization to stem the potential loss of intellectual capital

These objectives together with the general understanding that knowledge is either tacit knowledge tied into a person's beliefs, motivations and culture, or explicit knowledge which may be applied by a person as tool for teaching, systemizing or documented easily into a tangible form, create a good general understanding what can be the parameters applied for measuring successfulness of knowledge management practices (Dalkir, 2011, 16-17). Tacit and explicit knowledge has been further studied by Nonaka and Takeuchi who a created model of knowledge conversion explaining in four steps how tacit knowledge is externalized to create explicit knowledge and then again combined with already existing information to create new tacit knowledge.

Successful knowledge management has long been linked with competitive advantage. In today's information society, it is a general misconception that knowledge management is about being able to collect knowledge and turn it into something more explicit or tangible. On the contrary, knowledge management needs a wide implementation within a company which during longer period of time creates accumulated organizational knowledge and know-how through small incremental steps. These incremental steps give organization leverage in competition which can be identified by looking into the visible difference between a company's book value and market value. Also, the knowledge and knowing capability of an organization is an increasingly important source of competitive advantage for firms (Dalkir, 2011, 50).

Considering the term “management”, we can find a problem with its interpretation together with an ideology such as knowledge management. Management implies that knowledge itself could be managed. Furthermore, usually management implies that there is a single entity or a department within a company that would take a responsibility for managing knowledge and apply knowledge management as a single element. However, knowledge is something that is not manageable in traditional sense. It requires commitment and continuous effort to gather knowledge throughout a company and from its every employee by utilizing a set of tools such as fitting ICT-systems and management practices which together address the challenges a company faces in knowledge management (Bukh, Christensen & Mouritsen, 2005, 36-37).

The idea of studying knowledge management as a tool for SME companies emerged while the author was working for the case study company Ziliot International Ltd. The past work experience in gave a somewhat realistic view of how some SMEs manage the knowledge sharing with heavy focus on ICT systems and reporting. At the time of the author’s training, Ziliot was a company with 8 employees of 5 different nationalities most of which were located at Jyväskylä, Finland, and only two software programmers were located in Bulgaria. Being a start-up company, Ziliot had little to no implemented management strategy or knowledge management practices. The author’s duties at Ziliot included organizing and recording meetings, creating employee information profiles, reporting functionality issues of Ziliot webpage, web design planning and time scheduling of various tasks. Later the author also created a news letter template for Ziliot and wrote blog posts on different topics. The author’s interest in management practices and lack of them at Ziliot enabled a clean and unaffected study on employee mindsets towards knowledge management, which tools should be applied and how different cultural backgrounds affect the sharing of tacit and explicit knowledge.

1.2 Research objectives

The objective of the research was to study how the knowledge management and the knowledge sharing are seen by the employees in a multinational start-up organization. The employees coming from various cultural backgrounds created an interesting environment for a study of how different types of knowledge can be shared effectively. The research questions are:

- What are the weaknesses in the knowledge management and the knowledge sharing in Ziliot?
- What are the best practices in Ziliot regarding the knowledge management and the knowledge sharing?
- How can the knowledge sharing be improved in Ziliot?

The main focus of the research is the communication process behind the knowledge sharing and how the knowledge management affects this process. Considering the cultural mix-up of the employees working in Ziliot, it becomes obvious how easy it is to miss the opportunity to bring together a truly multinational team as a result of not being able to create an open and encouraging company culture for the knowledge sharing. Focus on the knowledge sharing and the knowledge management was chosen because the employee’s tasks in Ziliot rarely required a special knowledge of using complex hardware and required almost always using a knowledge of a culture and experience. Also, as cultural background can be considered to be a highly tacit knowledge it can be difficult to articulate (Dalkir, 2011, 64-65). Considering that more tacit the knowledge is, more valuable it tends to be, it is more than vital for a multicultural start-up to enable successful knowledge management.

1.3 Ziliot international Ltd

Ziliot International Ltd is a base in Finland and provides a social networking platform aiming to fulfill the needs of B2B networking. Ziliot enables companies to connect with their local and other foreign manufacturers in the website and create new business contacts through the tools of the social media such as product promotion in the company profiles and user commenting. Ziliot aims to create a network of SMEs around the world for easier and more direct networking between each member of the service.

Professional B2B network sites like Alibaba have a huge amount of users with little to no real differentiation of the other similar manufactures and service providers. At the moment, companies are using social media sites like Facebook for only promotion without networking with each other. Ziliot aims to create a similar personalized user profiles like in Facebook with product information, images and contact details to create a personalized profiles for each user enabling them to contact other companies around the world. This helps in search of business partners, suppliers and manufacturers and streamlines the process or creating a new supply chains in an international scale. Also, entities like chambers of commerce can join the Ziliot network for promoting and validating their local companies in the Ziliot website. To explain the idea in its simplest form; Ziliot wants to create a networking tool similar to LinkedIn or Facebook, but for companies and together with tools that suite B2B networking and business transactions.

Ziliot Business model enables communication between governmental entities, chambers of commerce, manufacturers and service providers. Each member can look for partnerships, suppliers and distributors around the world and create complete supply chains through means of networking. For example, chambers of commerce together with other government entities validate their local companies and enable Ziliot to grant “verified” statuses for those members.

During the author’s research period in Ziliot, the company had 8 employees, two of which were Vietnamese, one Estonian, one Finnish, 3 Bulgarian and one Nigerian. The core team was located in Jyväskylä and only the employees responsible creating the website infrastructure were located in Bulgaria. Considering the different cultural backgrounds of the employees, it is easy to predict what kind of problems can occur in daily work. Communication, task sharing and the knowledge sharing caused somewhat notable issues, as it took a lot of learning to create effective ways of communication between all the cultures. As Ziliot was only a start-up company at the time, it did not have an established organizational culture and ways of communication. This led into a situation where each task and communication was conducted with different tools varying from Google Docs to many different internet based task sharing tools like Asana.

The management in Ziliot was formed by the co-founders Aniekan Okono and Teodor Kostov. Teodor was working closely with the other employees sharing tasks, planning the time schedules and communicating between Aniekan and the other employees. Aniekan's role was to oversee the process and plan how Ziliot is driven forward by studying the market conditions and creating a business strategy to meet those conditions. Having employees with Asian, African and European background made it easy to contact different companies in each target markets by utilizing tools such as Skype Instant messaging, bloggers in Vietnam, Germany and US, and by contacting local newspapers. The international team of Ziliot enabled using the cultural knowledge of each the market areas and helped Ziliot to lessen the barriers of communication caused by language and cultural issues.

Tasks in Ziliot included writing blog posts in the company blog with topics varying between explaining the website functionalities to promoting the ideology behind Ziliot's business model. Tasks also included creation of a newsletter promoting such items as a well created users profiles in the website. Other tasks included contacting bloggers and newspapers in our target markets in order to promote Ziliot's service and creating new functionalities for Ziliot webpage. These tasks together with directly contacting companies kept our team busy and required daily communication between all of the employees in Ziliot. The problem with all this communication was that the Asian, European and African cultures are difficult to match in terms of internal communication, expectations, sharing opinions and knowledge.

The knowledge management and the knowledge sharing in a start-up company with previously unacquainted employees can usually be quite difficult because of the amount of time spent developing organizational culture. However, this may not apply to such start-ups as family businesses, where the employees are likely to already have trust relationships between each other and are committed to the organizational success. This was not the case with Ziliot where employees had a lot of tacit knowledge about their local cultures but sharing this knowledge was difficult due to cultural barrier and lack of trust. This clearly represents one of the basic problems in sharing the tacit knowledge as explaining local customs and mentalities towards the B2B communication required a lot of effort. Also, recording this knowledge for later use was not organized in any way. For these reasons, capturing the tacit knowledge and preventing it from leaving the company together with the employees was problematic. To prevent this from happening, Ziliot needed to establish a company culture where the knowledge management is takes part in the knowledge sharing throughout the company. In order to create such culture, it is necessary to agree upon the ways of communication the tacit knowledge and the explicit knowledge when sharing knowledge. This complex process surely requires trial and error, but with a goal driven management and commitment it is possible to reach effective knowledge management practices.

2 RESEARCH STRATEGY AND IMPLEMENTATION

2.1 Choosing the research method in the Ziliot case study

There are two main research methods used in field of business; qualitative and quantitative researches. They mostly differ in the way the data is collected and how the analysis is conducted. Research is a process of finding out information and investigating the unknown to solve a problem. Quantitative, or scientific, research method aims to solve a problem or test a hypothesis by asking questions that have answers tied to a predetermined value. This enables researchers to conduct large scale studies and analyze answers in fast manner by the comparing variance in predetermined values. A qualitative, or ethnographic, approach aims to understand the reasons that cannot be analyzed in numerical values. Observing, discussing and asking for more in-depth questions during an interview are necessary in this method. The main focus is to understand behavior, reasons, perception and meaning behind interviewee's actions (Maylor & Backmon, 2005, 4-6).

The Structure of a research is determined by the research method used. Quantitative research relies on well determined, usually numerical values, with the data gathered from numerous respondents. Research is well structured and only analyses questions that can be measured by these methods. Quantitative research is less structured and relies more on discussion and observation of interviewees. Therefore, the researcher has to be able to adjust and gather data that comes in a spoken, written or behavioral form. In qualitative research, there should be predetermined questions than can be openly discussed to seek more in-depth data.

The author aims to understand the behavior, perception and motives regarding interviewees' knowledge and the effectiveness of the ways of sharing this knowledge. To understand these issues, a qualitative research method was chosen. Also, because Ziliot is a start-up SME company, it is only possible to analyze a small group of employees. Thus validating the research with quantitative data would be impossible.

2.2 Research approach

A case study approach aims to understand complex social phenomena by allowing an investigation to establish a holistic and a meaningful definition of a real-life event such as a management processes. Two types of case study approaches exist: intrinsic case and instrumental case. The intrinsic case has a particular interest in specific phenomena within an organization such as a leadership succession in a nonprofit agency. The instrumental case studies more than specific phenomena. The purpose is to create a more holistic understanding of a leadership effectiveness caused by processes, training and social factors (Klenke, 2008, 59-60).

Case studies are particularly well suited for investigating phenomena in which an existing theory, data or knowledge does may not apply. The case study builds an incremental knowledge by utilizing mostly a qualitative research and applying existing information such as management theories applied in management. It is important to point out that the case study approach applied into Ziliot is a single case study as it analyzes only a specific organization that has not been analyzed before and because the author has access to analyze all part of the organization from inside out (Klenke, 2008, 63). Also, the phenomenon of the knowledge management and the knowledge sharing in SME, together with the multicultural work force of Ziliot, enables an interesting study of the management practices in clash of different cultures. Ziliot case studies single phenomena aiming to enhance the knowledge sharing processes within the organization which is well suited criteria for a single case study as generalization for larger use is not necessary.

Together with the case study, a number of semi-structured interviews were conducted. The aim of these interviews was to gather more in-depth information about certain phenomena in Ziliot and to provide the author with more holistic understanding. Semi-structured interviews were conducted at the end of the author’s research period in the company. Benefit of this way of implementation was that the research period extended through 5 months of work in the company providing possibility to observe the organization from the knowledge management point of view and then create establish a complex understanding of underlying factors such as motives and emotions through use of semi-structured interviews. Long observation period also enabled the author to form a required level of mutual trust with other employees which enabled asking interview questions that otherwise may have offended the interviewees and be left without answer.

3 KNOWLEDGE

3.1 Data, information, knowledge

To understand knowledge we must first understand how it differentiates from data and information. Knowledge is neither data nor information. However, knowledge cannot exist without them. New knowledge is created by taking existing beliefs of a person and combining it with information created on basis of a data. Koskinen and Pihlanto explain this conversion process by defining data as raw facts such as numbers and letter which are then given context create information. Combining information with an individual's existing beliefs, skills and perception create knowledge. Thus, data, information and knowledge are all distinct entities. (Koskinen & Pihlanto, 2008, 29)

To explain data, information and knowledge we can think of the learning process from reading a book. Individual words in a book represent data which combined with the other words in the book create sentences giving them a context. However, a book itself has value only as information. It needs an individual reading the book and combining the book's information with an individual's existing skills, perception and beliefs to create new knowledge.

Unique combination of different knowledge in a company can create a competitive advantage when three criteria are filled: the knowledge must be valuable considering the core competence of the company, the knowledge must be difficult for competitors to imitate and difficult to substitute (Krogh, Ichijo, Nonaka, 2000, 73). The importance regarding the core competence of a company lies in successfully creating added value to the core tasks or competences. Difficulty to imitate the knowledge can be caused by patenting which requires conversion to from tacit to explicit knowledge and can be a costly process, or by retaining the tacit knowledge as such and utilizing it as a personal or a social knowledge. This enables companies to protect their knowledge capital by without documenting it into a written form.

Written documents can be easily copied by the competition to use in such markets which are not protected by this patented knowledge. Krogh, Ichijo and Nonaka explain this further by comparing quality issue management in Japanese and American car manufacturing. Their example shows how car manufacturers in Japan are able to benefit from a close distance between factories and suppliers. Having greater amount of face-to-face communication within the supply chain creates lesser need for the slow exchange of manufacturing procedures, transferring engineering documents and product specifications. (Krogh, etc. 2000, 75.)

3.2 Knowledge in organization

Knowledge has a unique role in an organization when considering value of the knowledge. Items like buildings, machines and equipment can be measured with a certain value which by time usually decreases due to depreciation. However, knowledge is much more difficult entity to measure. Value of knowledge, both explicit and tacit form, can be measured but with a very different way. Explicit knowledge within a company is usually tied into a form of intellectual capital as patents, document and general information. Intellectual capital (IC) has become increasingly important in today's knowledge economy. Some companies create intellectual capital statements which represent their estimated value of IC tied into the organization (Burg, Christensen & Mouritsen, 2005, 53-54). Measuring tacit knowledge requires more complex processes. Tacit knowledge does not present itself in a tangible form, thus estimating its amount, value and usability is difficult. Giving a value to the tacit knowledge requires tools that enable measurements of an intangible entity, which by itself is impossible. However, management tools such as a balanced score card (BSC) enable measurement of performance, communication and sharing with predetermined paradigms. BSC enables transferring abstract goals, such as contribution into a common goal, to a measurable form enabling evaluation of tacit knowledge output of a person (Dalkir, 2011, 352). These measurements allow somewhat standardized method of evaluating so called knowledge worker who usually contributes to both tacit and explicit organizational knowledge.

A popularly used definition of a knowledge worker is “someone whose work is primarily intellectual, creative and non-routine in nature, and which involves both the utilization and creation of abstract/theoretical knowledge” (Hislop, 2009, p. 75). Many different occupations can be considered to be knowledge work. Architects, lawyers and doctors, to name a few, all fit into the previous definition. This wide spectrum of occupations is caused by the value definition of the knowledge worker itself. However, Hislop continues to use Frenkel’s three criteria to define knowledge worker. Frenkel defines knowledge worker as anyone who firstly has a high level of creativity in their work, secondly, requires making extensive use of intellective skills, and finally, makes use of theoretical rather than contextual knowledge (Hislop, 2009, 74-75). Importance of the knowledge worker in any knowledge based company is obvious. Contribution to the organizations knowledge pool increases competitive advantage which, especially SME companies, is the key for surviving. A high turnover can cause big problems for any company, but especially SME companies tent to suffer significant losses in performance when a knowledge worker leaves the company. Knowledge worker usually possesses both explicit and tacit knowledge which has not been documented in any way increasing the importance of a good knowledge management practice in the organization (Hislop, 2009, 87). Thus, identifying who are the knowledge workers in a company is crucial for success. This requires that the management works closely together with the employees and keeps monitoring their performance. Knowledge workers can be acquired through hiring but they can also be developed over time within already existing labor force. Building employees’ knowledge by actively developing their skills through training, job cycling and mentoring can create new knowledge workers within an organization.

3.3 Problems with defining Knowledge Management, IT solutions and Nonaka’s SECI model

As Dalkir (2011) points out in his introduction to knowledge management, there are many ways to define what knowledge management is. Also, the definition itself varies between different types of knowledge and the ways in which knowledge is understood. According to intellectual or asset based view, knowledge management consists of “leveraging intellectual assets to enhance organizational performance”. From a business perspective, knowledge management consists of various practices and tools to record tacit and explicit knowledge by organizational learning and sharing this information within the organization. The process-technology perspective emphasizes the importance of knowledge as a component of performing various tasks and actions. To conclude what knowledge management is we need to understand that it involves different fields such as organizational and cognitive science, information technologies, education and training, technical writing, etc. Different organizations have different definitions for knowledge management. However, most of those definition and practices touch more than one of the previous topics creating more holistic and in-depth practice for knowledge management. Nevertheless, as discussed in the introduction chapter, knowledge management can be defined by four guidelines which, regardless of the various tools required, define the reasons for knowledge management’s existence within any organization. (Dalkir, 2011, 5-9.)

Bukh, Christensen and Mouritsen (2005) point out how knowledge management may suffer from an over emphasis on IT solutions within organizations. IT solutions can be thought to provide all the necessary tools for knowledge management. However, such solutions cannot be implemented as IT-only works as a platform for data storage and information sharing. As the authors point out, what is considered important by management may not be considered important by employees and knowledge management within an organization cannot rely only on IT as e.g. the existing knowledge may be difficult to embed into the system. These problems occur because employees are rarely those who created the IT system. Thus using it may be complicated, and coding tacit knowledge into tangible information is never easy. Also, organizations may discard already existing information caused by their focus on the IT system itself and not less on cultural and organizational issues which require knowledge management. As IT systems are only a part of the knowledge management activities, organizations may not include tasks like knowledge generation and knowledge integration when focusing only on databases and intranets. IT is necessary for any organization's knowledge management. This creates a challenge for any organization to understand the variety and content of different knowledge management fields, how to determine which fields are important in their organization and how IT systems can improve their performance in these fields. (Bukh, etc. 2005, 36-38.) However, careful planning and implementation of IT-systems is necessary as unsuitable systems can greatly hinder the knowledge management and the knowledge sharing processes.

Nonaka's SECI (Socialization, Externalization, Combination, Internalization) theory has been widely cited in many knowledge management articles and has shaped today's knowledge management in many ways. However, it can be argued that Nonaka's SECI model of knowledge creation model only applies in the Japanese organizational culture. Hislop (2009) criticizes Nonaka's model in three ways. Firstly, the example behind SECI models socialization process is most likely to be only an example, not a real life situation. Hislop presents Stephen Gourlay's argument from Gourlay's book Conseptualizing Knowledge Creation: A Critique of Nonaka's Theory (2006) where Gourlay criticizes the anecdotal nature of Nonaka's socialization example. Secondly Gourlay focuses on the conceptual problems, not only of Nonaka's model, but also in the way Nonaka assumes that all tacit knowledge can be converted into explicit knowledge. Gourlay argues that not all tacit knowledge can be converted into explicit knowledge and also shares his view with a number of theorists such as Rodrigo Ribiero and Harry M. Collins (Ribiero & Collins, the bread making machine, 2007.). Thirdly, Gourlay questions the model's universal assumption of nature of the culturally embedded knowledge and the way Nonaka's model is only reflecting Japanese values and culture. Nonaka applies Japanese business culture into his model without considering how it differs from other business cultures and practices, thus making a universal application of the model impossible. (Hislop, 2009, 121-123) For these reasons the author will not consider Nonaka's model valid for the case study company. Hislop presents in his book more applicable theories and practices which are more suited for Ziliot's organizational culture and management practices.

3.4 The share/hoard dilemma

In knowledge sharing, workers face a decision whether to participate into the sharing process and contribute to the public good of an organization's knowledge or retain their knowledge for some personal reason. Both sharing and hoarding have their benefits for a worker. Sharing knowledge rewards employees from the process or sharing as such. Also, group and organization benefits in terms such as increase in performance. While sharing, an employee may receive material or immaterial rewards and also gain enhanced status. Disadvantages of sharing knowledge comes with the process being time consuming and potentially gives away a source of power and expertise to others. Knowledge hoarding has advantages in term of avoiding giving away a source of power or status. Disadvantage is that an employee never receives a full recognition for their knowledge and for what they do. Hislop also points out that, in a number of studies a fear of losing a social status or a course of power caused by sharing keeps the employees from participating in the sharing process (Hislop, 2009, 148-151). Tension between employees and an organization may be caused by the fact that ultimately it is up to the employees whether, when and how to apply their knowledge. Other sources of a tension can be caused as sharing knowledge to the public good of an organization relieves an employee from the ownership of this knowledge. This possibly creates a fear of a situation where this shared knowledge can be used against its former owner in terms of loss in a status or power (Hislop, 2009, 152). In the end, it is in the management's responsibility to form such an environment for the employees in which the knowledge sharing process is beneficial. This requires forming trust relationships with the employees and between the existing communities of practice.

To overcome previous problems in the knowledge sharing, Hislop presents three areas where the management can overcome the problems. Firstly, inter-personal trust is in a crucial role as trust builds an employees willingness to share and contribute to an organization's common knowledge. Lack of trust between individuals is likely to decrease the extent in which the employees are willing to share their information. Hislop presents Newell & Swan's (2000) three dimensions of trust to explain the psychology behind trust. Firstly, companion dimension of trust is based on judgments of goodwill or friendship which is built over time. Secondly, competence dimension of trust is based on perception of other's competence to carry out relevant tasks. Lastly, commitment dimension of trust stems from the contractual obligations. Typically, inter-personal relationships at work among employees are likely to involve all of these dimensions. Organizations must find a way to create this trust, not only in individual level, but also within groups and teams. Trust cannot be developed quickly. It requires time, extensive interaction, commitment and collaboration (Hislop, 2009, 158-159). When working in a multicultural environment, this process requires adaptation of organizational culture by combining different aspects of the employees' own cultures. The result is a kind of a mix of different elements of these cultures. However, the outcome should be commonly accepted by all of the employees.

Second aspect in knowledge sharing is creating inter-personal trust within an organization that stems from a group identity. Hislop argues that an employee's strong sense of feeling a part of a group or a team is more likely to prevent the knowledge sharing as it discourages creation of the trust relationships. Also, Hislop argues that a strong feel of individuality regarding a task within a group or a team is likely to prevent the knowledge sharing as it increases cultural barriers within a multicultural working environment. However, a feeling and sharing of identity with a team or a group is likely to encourage the knowledge sharing by increasing the trust relations between employees (Hislop, 2009, 160). This feeling of being part of a group builds over time. Closely working together with the employees and communicating face-to-face between each other is likely to faster this process. Strong emphasis on IT-solutions may take this focus out of the employee interaction and hinder the process of building a shared identity.

Personality is the last factor to consider in trust relationships between individuals in an organization. Hislop refers to Cabrera & Cabrera's (2005), as well as Moorandian et al.'s (2006) studies about personal traits. According to Hislop, personality is rather understudied topic in knowledge management. However, it still plays an important role by shaping employees' attitudes towards the knowledge sharing. Both studies present five factors influencing individual's personality. Openness is characterized as the extent to which someone is imaginative, creative and curious. Extraversion characterizes the extent to which someone is sociable, talkative, enthusiastic and assertive. Neuroticism charities the extent which someone experiences negative emotions such as anxiety, anger or quilt. Conscientiousness the extent to which someone is careful, self-disciplined, hardworking, dependable and reliable. Agreeableness the extent to which someone is generous, trustful, cooperative and forgiving. (Hislop, 2009, 161)

Despite both studies using the same model they came to different conclusions. Cabrera & Cabrera's conclusions was that openness (to change) personality trait encouraged knowledge sharing. However, Moorandian et al.'s study found correlation between agreeableness and a positive view towards knowledge sharing. For these reasons Hislop concludes that it is inconclusive how personal traits relate to an individual's view towards openness for knowledge sharing or in their willingness to participate in any organizational knowledge processes. (Hislop, 2009, 161) Regardless of the correlation differences, it can be concluded that when hiring new employees it should always be kept in mind what kind of organizational culture is present at the moment and how applicants compare to that culture. It might be difficult to find employees that fit into that culture straight away. However, their personal attributes determine whether they are able to adapt into this culture or not.

3.5 Communities of practice

Communities of practice refer to informal groups of individuals who share a partially or completely similar work related activity. Informality in these groups is caused by the social structure of the group as it is necessary to participate in the social interactions as part of the work (Hislop, 2009, 165). Size of these communities of practice can vary from a few employees to as many as is it necessary to complete a specific part of the organizational activities. For example, a sales team can be considered as an individual community of practice as they are very likely to share common knowledge about products and services, and also communicate between each others on daily basis.

The Communities of practice concept includes two main ideologies: the practice based view on knowledge, and the group based character of organizational activity. Firstly, in the practice based view, knowing and doing are tightly linked to each other when undertaking a specific task. Thus, learning-in-work is seen as an occupational necessity (Hislop, 2009, 168). Each new employee has to develop the necessary skills on basis of the employee's existing knowledge, the information required to complete the given tasks, together with support given by the co-workers and management. Second ideology, the group based character of organizational activity, emphasizes social interaction in a group of employees and how, regardless of the nature of the work, a amount of common knowledge must be shared within the group. This is conducted by two main necessities of the organizational activities. Firstly, employees in a group posses and develop a stock of common shared knowledge. Secondly, groups usually also share values and attitudes resulting in a common perspective to their tasks (Hislop, 2009, 168). Together with the shared knowledge and values, the employees identify themselves as a part of a group creating usually fruitful environment for the knowledge creation and sharing. This is based on an assumption that each individual employee is committed to increase the performance of their group once the feeling of collective identity is created. Moreover, shared values and common knowledge is greatly important when sharing tacit knowledge, which by its nature, is very difficult to share and may greatly increase the organizational performance as discussed in previous chapters.

Communities of practice are by their nature autonomous, self-managing systems which can perform in a great level without any kind of a top-down management. Thus, trying to manage this kind of a system possesses some risks. Such attempts may in fact have adverse effects on the performance of a community. For example, trying to formalize a community may create rigidities which inhibit a group’s innovativeness or adaptability which may interfere with the current knowledge sharing processes (Hislop, 2009, 174). On a management point of view, communities of practice seem to create problematic environment that opposes changes and other managerial activities.

In his book, Hislop presents two steps to manage communities of practice. The first one, a “light touch” management, suggest that the management of communities of practice should be done by small incremental changes which enable natural adaptation to a change and also nurture the existing form of communities of practice (Hislop, 2009, 174). However, this approach can suffer from a rather vague definition of managerial decisions which lack detail and are unlikely to result in a completely wanted outcome and also hinder the current form of the knowledge processes in the community. Second step is more likely to have better results as it focuses on enhancing the positive actions in the communities of practice. This is done by emphasizing practice-based, peer supported methods in learning, instead of formalized, classroom based methods. Also, Information shared in this way should not be privileged but commonly shared to all employees within the communities of practice. It should also be taken into count that communities of practice take significant amount of time to change, thus continuity and patience is required to develop these entities. Lastly, indentifying, nurturing and supporting already established communities of practice by reinforcing their self-managing systems and mechanisms of social interaction together with adequate amount of autonomy enables communities of practice perform and develop over time with least amount of negative side-effects (Hislop, 2009, 175).

In the end, forming of communities of practice cannot be avoided in any organization that wants to perform in its best possible level. Management should see communities of practice as an opportunity to increase competitive advantage by encouraging the knowledge sharing processes in these entities. Trying strictly to control communities of practice only has negative effects. Thus, learning to work with them is a managerial must for any organization.

3.6 Cross community knowledge processes

Cross community knowledge processes differ in many ways from intra-community knowledge processes. Employees in a community of practice identify themselves as members of those communities. However, knowledge processes between different communities of practice involve collaboration between employees who do not share same community identity and only have a limited amount of common knowledge. This kind of communication requires crossing boundaries between different communities of practice as well as enabling efficient knowledge processes when sharing vast amounts of information in variety of contexts involving overcoming community, occupational, organizational, functional and national boundaries. (Hislop, 2009, 183) When we add a multicultural environment into this equation it can be very difficult to find effective ways to enable the knowledge sharing process between different communities of practice. However, successfully doing so should give great benefits in terms of diversity of the knowledge and the clarity of the overall description of the organizational processes and the supply chain.

Cross community knowledge processes usually occur in situations such as product development usually in high-technology markets as they usually have hardware and software implementations as well as production based requirements. Also, cross-cultural boundaries play a significant role in the knowledge processes of multinational organizations together with inter-organizational supply chain based collaboration. These are only a few examples of cross community knowledge processes. However, any situation involving collaboration between employees who usually do not work together, share different community identity and only have a limited amount of common knowledge require cross community knowledge management to some extent. Another factor signaling the importance of cross community knowledge processes is that knowledge within organizations is becoming more and more fragmented into separate, specialized communities or practice. Therefore, one of the main tasks of knowledge management is to facilitate knowledge sharing and processes between these diverse communities of practices by enhancing communication, collecting diffused fragmented information and combine it as necessary. (Hislop, 2009, 185-186) International organizations have to work hard on this process. It requires time, effort and determination to create the effective cross community knowledge process. However, it is crucial for long-term success that this is taken into count when building organizational complexity. Even for the feedback process from the customers to the people designing the product it is necessary that the information is effectively transferred through the communities of practice.

Regardless of organizational structure and culture, employee nationalities or field or work there are three main types of boundaries: syntactic, semantic and pragmatic. Syntactic boundaries are due to difficulties in understanding information in its presented form such as technology oriented jargon. Semantic boundaries refer to different interpretations of the same information by different groups which can be successfully overcome by developing the understanding of and the sensitivity to other groups' interpretations. This can be caused by cultural differences between groups leading to difficulties in expressing knowledge. Lastly, pragmatic boundaries may be due to different interpretations or information as well as different interests or motivations. This kind or boundary requires finding common interests for the groups in question and also involves at least one of the groups to share and transform their knowledge. Thus, pragmatic boundaries are the most time consuming to overcome. Overcoming them requires commitment and investment of time to enable a gradual change within at least one of the communities of practice adapting it to fit into the cross community knowledge process. (Hislop, 2009, 193-194)

To overcome syntactic, semantic and pragmatic boundaries, Hislop refers to Carlile's two articles published in 2002 and 2004. Carlile (2002, 2004) proposes four different kinds or boundary object types which are used to overcome a certain boundary. Table 3.1 briefly explains these boundary object types and their characteristics.

Boundary object type	Boundary object characteristics
Repository	Common data or information that provides a reference point for groups involved in cross boundary work.
Standardized forms/methods	Shared forms and methods of working allow differences of opinions across a boundary to be acknowledged, accounted for and understood.
Objects/models	Complex representations (such as drawings and computer simulations) which can be observed and shared by the groups involved in cross boundary situations.
Maps	Representations of dependencies between the groups involved in cross boundary working.

Table 1. Carlile's boundary object types

Once defined, one or more boundary object types by Carlile should be applied to overcome each of the different boundary types: syntactic, semantic and pragmatic. Syntactic boundaries being the easiest one to overcome require only an adaptation of the repository object type. As discussed earlier, syntactic boundaries are due to difficulties in understanding information provided by other community/group. To overcome this, a repository boundary object determines that transferring and sharing knowledge between communities/groups should allow the development of common knowledge base between these parties which enables successful crossing of the syntactic boundary.

Semantic boundaries require a more complex adaptation of different boundary objects types. This is caused by lack of common knowledge and different interpretations of given information between communities/groups. Firstly, standardized forms and methods of working should allow people to get a better insight into the perspectives and thus help to understand the different ways common forms are used. Secondly, utilizing objects/modes gives means to understand and communicate employees' perspectives in work and work related issues. Lastly, maps can be used to indentify inter-dependencies between communities/groups to create better understanding how group or community relations work.

Pragmatic boundaries are the most difficult to overcome because groups/communities do not share the same interests. To overcome this type of boundary, Carlile suggests the use of both objectives/models and maps. Maps enable people to appreciate or better understand the differences of interests between groups/communities. The use of objectives/models can provide the means allowing people to form a sense of common interests to communicate complex representations of information between communities/groups, thus enabling transformation of their knowledge to achieve a collective goal. (Hislop, 2009, 195-197)

3.7 Power, politics, conflict and knowledge processes

Power can be defined as *(scarce) recourse whose use allows people to shape the behavior of others* (Hislop, 2009, 205). This definition can be applied through scales such as individual, organizational and economical power. To understand the relation between power, politics and conflict within an organization, we first must understand the three properties of knowledge and how they can be utilized as a power resource. Firstly, knowledge is scarce; specialist knowledge is possessed only by a limited number of people. Also, tacit nature of this kind of knowledge means that it requires time to develop. Secondly, knowledge may satisfy wants by fulfilling individual needs through possessing and using, or satisfy organizational needs and goals through possession and utilization. Lastly, knowledge has no alternatives. Individual and organizational wants, goals and objectives all require use of a specific type of knowledge (Hislop, 2009, 204). It is clear that knowledge plays an important role in any organization. However, organizations must also understand how to use the knowledge within and be effective with it. Otherwise, even organizations with a great amount of knowledge fail to utilize it and crumble under the internal power play and politics of those holding the knowledge.

To explain how politics effect on power and conflict, it must be understood how politics are the very action by which people deliberately attempt to have influence on others by using power recourses to fulfill their individual/organizational objectives and goals. Political process within or between groups, communities of practice and organizations is formed by each individual entity having competing or conflicting interests. Different power recourses then affect on the outcome of the political process. In the political process the outcome of a conflict situation is decided by each entities' way of using modes of influence such as control over economical resources, utilization of political tactics such as deciding what knowledge to share and with whom, and what kind of attitude/response entities have to power utilized by others. (Hislop, 2009, 206-207) Power, politics and conflict together with the process behind these factors in the knowledge management seem to be rather difficult to define. However, it is important to acknowledge that power plays a very important role in the knowledge management and must be taken into account when dealing with such issues as share/hoard dilemma and utilization of knowledge workers within an organization.

In his book, Hislop also presents Michael Foucault's suggestions of power being something which is produced and reproduced by the dynamics of changing social relationships. This differs from the previous ideology in terms of seeing power as something embedded into the knowledge itself. Thus power constitutes by different entities interactions with each other. This view presents power as a strategy rather than a resource as in Foucault's definition power, rather than being possessed, is exercised through actions and strategies. (Hislop, 2009, 213) Foucault's view gives an interesting contrast to more practice based epistemology of the previous view in which power can be exercised outside of its knowledge body. Both of these may apply equally, but in the author's view Foucault's epistemology applies better in SME organizations where organizations are more likely to be less formal and hierarchical. The practice based epistemology then applies better into industry level where two or more organizations are competing or even in bigger scale geographic scale.

3.8 ICT and knowledge management

Information and communication technologies (ICT) have been a significant part of the knowledge management from the very early stage. ICT played had a lot of influence in the early knowledge management writings and ICT also played a key role in most of the early knowledge management initiatives. However, ICT's role in the knowledge management has undergone a significant change from being just a way to store information and utilize communication to being much more than that. Today's ICT enabled knowledge management thrives to success by taking into account socio-cultural aspects of organizations to build and sustain trust in the inter-personal relationships. (Hislop, 2009, 220, 233)

ICT enabled knowledge management can be seen from two perspectives. Objectivist perspective purposes ICT, firstly to build libraries of codified knowledge which enables employees to search for knowledge from already existing source rather than developing their own solutions. Another purpose is to organize task-related codified knowledge into documents and standardized operating procedures which are used to build blueprint approach to task-related operation processes. This assumes that once the "best practice" way of procedure is identified it can be coded and shared throughout the organization for further use. Practice-based perspective, on the other hand, purposes ICT firstly to map expertise of employees to find relevant knowledge in an organization by creating an electronic library of skills and knowledge together with information about the employees who possesses these attributes. Secondly, ICT is used to provide collaboration tools to facilitate ICT-based communication and knowledge sharing. This stimulates rich inter-personal interaction between employees regardless of geographical distance as ICT provides means to encounter face-to-face like information richness without physical contact (Hislop, 2009, 222-

226, 230). Organizations must closely inspect their internal knowledge processes before implementing ICT systems aiming to support their internal knowledge management processes. Trying to force unfit ICT system into use of employees only hinders the knowledge sharing process. This was also visible during the Author's research period in Ziliot.

ICT technology itself enables a substantial range of tools to facilitate knowledge processes within an organization. However, it should be noted that successful implementation of knowledge management requires almost always face-to-face interaction. This is because communicating knowledge and sharing information requires an effective medium supporting information rich communication. Today's ICT has four main ways of communication. E-mails represent the lowest level or information richness which only enables effective sharing or highly codified, easily presentable knowledge. Phone calls enable a bit higher level if information richness by enabling some social clues such as tones of voice and instant feedback. Video conferences have high level or information richness with visible gestures and expressions, but suffer from lack or spontaneous because of time required for set up. For these reasons face-to-face interaction enables the riches form of information which is most likely to result in effective knowledge communication processes. However, as this requires physically being in the same place with rest of the group the face-to-face interaction suffers from high costs which, in case of truly global teams, make it impossible. (Hislop, 2009, 230)

Both of ICT's implementations can provide equal means to create successful implementation of ICT. However, regardless or organizational viewpoint on ICT's in the knowledge management, developing and sustaining trust in social relations through use if ICT has proven to be crucial for success regardless of the difficult nature or this issue (Hislop, 2009, 231-232). As discussed in previous chapters, trust and positive relationship within organization play a very important role in knowledge management. Problems in forming and sustaining trust over ICT based interaction are most prominent in global virtual teams where employees are separated by time and culture. Hislop refers to Järvenpää & Leidner (1999) study of this kind of a team.

Järvenpää and Leidner studied this kind of global teams which had no time to develop personal based trust. However, some teams were able to form so called swift trust between employees which allowed effective co-operation. This kind of trust is fragile but demonstrates well how the first steps of trust relationship require (Hislop, 2009, 233-234). However, these are only few cases representing unique environment for the ICT system to be utilized in. It can be concluded than in general, ICT systems are not able to provide tools to necessary to simulate the complexity of face-to-face interaction.

Järvenpää & Leidner found out that if group member show enthusiasm for the task in hand and willingly participate in active social communication the group is more likely to build and develop personal trust over time. Other required attributes for ICT based trust building are ability to cope with uncertainty and individual initiative to undertake tasks. To sustain trust relationship within group employees, according to Järvenpää and Leidner, must show predictable communication and give substantial and timely responses. Also, groups must be able to transcend in effective way between social, procedural and task focus. Lastly, groups must have positive leadership and phlegmatic response to crises. (Hislop, 2009, 235) These qualities in a group or a team represent well the elementary necessities to build trust between employees who have had no previous interaction. Also, the complexity of these requirements means that building an effective multicultural team based only on communication through ICT systems is highly unlikely.

3.9 Organizational culture and HRM

The most difficulties with forming an organization culture that encourages knowledge sharing were discussed in chapter 3.4 Share/hoard dilemma. We can further investigate different human resource management (HRM) practices which can be seen leading to more positive attitude towards knowledge sharing. These practices include recruitment and selection, job design, training, coaching and mentoring, and reward and practice appraisal (Hislop, 2009, 248).

In terms of knowledge sharing, the recruitment and selection of new employees should be done on the basis of already an existing organizational culture. As discussed before, consensus and a general feeling of group identity enable a more positive attitude towards knowledge sharing. Thus, recruiting employees with similar attitudes and values compared to the already existing organizational culture is likely to have better results than recruiting employees who do not share similar attitudes and value. Also, employees with similar attitudes and values are more likely to become happy and committed in their work which enhances the development of a strong identity and trust towards the organization. (Hislop, 2009, 248) However, defining current organization culture in multinational SME companies is not always possible as employee turnover might significantly hinder this process. Also, startup companies might either have really strong and selective attitudes towards new employees, especially in cases of family businesses, or have almost no consensus at all in cases of companies which are in the very beginning of their life.

Job design is considered crucial in affecting employee attitudes towards knowledge sharing. Most of the employees prefer jobs which are challenging and fulfilling, providing opportunities for employees both to learn something new and use their existing knowledge. Thus, in-job learning and supportive training, coaching and mentoring are required. Hislop also argues that knowledge workers prefer to have a high level of autonomy in their work. (Hislop, 2009, 249) However, autonomy could be seen to danger knowledge workers sharing process as working outside of the communities of practice or only partially taking part in it distracts knowledge sharing process. Thus, it should be considered how each organization can simultaneously provide autonomy and encourage towards the employees sharing values, attitudes and ultimately knowledge.

Training old and new employees can provide a welcome opportunity for self-development. Opportunities to take part in work related training processes are seen to develop a positive collective identity among employees, and these opportunities are considered especially important for knowledge workers. However, training processes may present a threat as training can also increase employee turnover as a result of the new skills acquired by employees. Regardless of this threat, training still has positive results as the employees would be more likely to leave the company if there was no any kind of training available. Also, this threat is most like to be overcome by providing training in universal skills encouraging better communication and supporting the positive sides in organizational culture instead of providing training of more narrow skills (Hislop, 2009, 249). Training is one of the key methods for building knowledge workers within an organization and should be carefully considered throughout the HRM practices. International and multicultural organizations represent an environment where training or general skills can be highly beneficial for the knowledge sharing process as the training allows better understanding of each other's attitudes and culture.

Coaching and mentoring are becoming more and more important in the knowledge sharing process. Hislop refers to quite many studies conducted in this area and concludes that the informal process behind coaching and mentoring provides an encouraging environment for a knowledge sharing process (Hislop, 2009, 249). These activities can be done both formally and informally. However, all the three studies presented by Hislop confirm that the informal communication between mentor/coach and the less experienced partner are more likely to result in more open communication enhancing the knowledge sharing process (Hislop, 2009, 250). For multinational companies, this kind of informal communication might be difficult to establish due to the fact that cultural differences can hinder the understanding of information included in rich communication such as gestures and facial expressions.

Reward and performance appraisals are a difficult topic for knowledge management. Hislop, again, refers to a number of studies on this area but, according to Hislop, they do not offer a consensus in this topic. Studies show that, while having a positive short-term result, appraisals can inhibit the knowledge sharing process as a result of sharing becoming a tool to receive appraisals. Appraisals/rewards including monetary benefits are seen to be especially dangerous as this enables those possessing knowledge to share it only when these kinds of benefits are presented. Studies that Hislop presents seem to have quite similar results on rewards, and appraisals given in terms of recognition are more likely to have better results among employees. Also, group-based appraisals and rewards are more likely to enhance a positive attitude towards the knowledge sharing process among employees. However, in cases of the knowledge workers, studies show that a highly competitive pay package is one of their primary concerns. (Hislop, 2009, 251)

Reward and performance appraisals present a unique and difficult problem to organizations. As money is one of the key factors motivating employees to perform, it possesses many complicated qualities such as performance based wage systems and equality among employees. Especially difficult are the knowledge workers in SME organizations as they usually require competitive salaries and might also be some of the carrying forces of the whole organization. Thus, it should be very carefully considered how to prevent these key employees from leaving the organization.

3.10 Knowledge management in multicultural organizations

In his book Hislop presents only a few examples of multinational organization. That may be because in comparison to only national organizations, multinational organizations are more complex but ultimately present very similar problems as national organizations do. Because the knowledge management process requires universally applicable factors such as trust, communication and willingness to share. Ultimately the process is the same in both national and multinational organization except for a difference being in the forming and qualities of the organizational culture itself. Regardless of the nationality of the employees, they will both fit into the culture and share knowledge, or become unfit and thus less likely to share. Only the required attributes to fit into the culture vary. To examine the issue with multicultural organizations, the author refers to a study by PhD. Adriana S. Burlea about knowledge management in multicultural organizations (Burlea, 2002, Economy Informatics, no. 2).

According to Burlea, it is important that a community/group both informally and formally channel their individual knowledge towards organizational goal. Thus, it is very important to clarify this goal for all the employees for them to be able to perform as required. The supporting information systems and organizational culture must both be integrated to fit into a multicultural organization's needs. Thus, establishing a climate that equally supports all nationalities and employee cultures is vital. This can be done by recruiting employees with the suitable general knowledge that fits into the current organizational culture, which is sometimes overlooked as employees with high qualifications that can be acquired over time, are regarded as more suited candidates (Burlea, Economy Informatics no. 2, 2002, 1-2). Not taking into account the general knowledge factor may result in the recruited employee being unfit for the organization culture and thus unable to form commitment and trust-relations towards the organization inhibiting the knowledge sharing process. This is due to the fact that unsuited employees lacking the required personal traits to fit into the existing organizational culture are not able to effectively share their knowledge with other employees.

The cultural dimensions of an organization are present on two main levels. Firstly, management should always keep in mind the multicultural nature of the organization. Thus, organizational goals and values should be presented through the management and exercised in such way that these values are harmonized through the organization. Lastly, the quality of work environment and conflict management plays an important role in multinational organization. Various cultural demands should be taken into account through flexible and complex management practices. Also, taking into account local and international legal systems such as health and safety measures enhances the positive attitude towards the knowledge sharing creating more trust and commitment among employees (Burlea, Economy Informatics no. 2, 2002, 3-4). This represents an important and difficult topic in the international organizations. They need to take into count local, global and domestic sets of laws and thus should always act by the highest principle of these laws.

Finally, it can be concluded that transparency, openness and willingness to understand different cultures are significant in cross-cultural knowledge management (Burlea, Economy Informatics no. 2, 2002, 2). This is a similar process to the cross-community knowledge management where at least a partial understanding of each other's cultures enable better communication and trust resulting in a knowledge sharing process. In the end, how employees see the organizational culture and their willingness to participate in it define their successfulness in becoming a part of that culture. It is the management's job to find these employees among the candidates. However, to find these employees one must first define their own organizational culture. Thus, a national as well as a multinational recruitment process should start with analyzing the organization itself rather than the employee candidates.

4 IMPLEMENTATION

4.1 Data collection

To be able to answer a research question one must have an access to kind of data that can justify researcher's conclusions. There are two main types of data that researcher may use; primary and secondary data. Both primary and secondary data are based on empirical data based on observations and recordings of a given issue such as customer behavior or management strategies. (Saunders, Levis and Thornhill, 2003, 2-3) Main difference between primary and secondary data is that primary data is acquired by such methods as interviews, observation and questionnaires specifically formed to answer the research question in hand, where as secondary data is a collection of already existing information that enable researcher to interpret and conclude in order to answer to the research questions (Saunders, etc. 2003, 188-189, 221, 245). It should be also noted that primary and secondary data should be compared when analyzing the results. Finding supporting theories from the secondary data to match the findings of primary data or testing the existing hypothesis of the secondary data are ways to compare these findings. In the Author's research there was somewhat clear correlation with the existing knowledge management theories and the results of the interviews.

4.2 Primary data

There are two ways to acquire primary data. Forming primary data through observation is a process involving systematic observation, recording, description, analysis and interpretation of people's behavior (Saunders, etc. 2003, 188-189, 221). Data can be also acquired through semi-structured interviews, in which a purposeful discussion of a topic enables researcher to gather and validate data. This discussion can be directed with questions aiming to gather more in-depth information if such interesting topic appears. This enables better understanding of different relationships between variables such as how management practices enable trust relationships within an organization (Saunders, etc. 2003, 251-252). For these reasons a qualitative semi-structured interview process was chosen to be used for gathering the primary data presented in this paper. Also, semi-structured interviews allowed more flexible flow of interviews and possibility to adapt the interview process into multicultural mix of employees.

4.2.1 Participant observation

Participant observation refers to a research method where the researcher attempts to fully participate in the life or a group or community. In this method the researcher is able to share the experiences and phenomena in the organization by not merely observing but also by participating. This enables deeper understanding of delicate nuances of meaning and motive behind actions. (Saunders, etc. 2003, 222-224) As the author's research period extended through period of 5 months it was beneficial for the research to actively study the Ziliot organization through that time. Danger of participant observation comes with revealing the specific researched phenomena which may skew the communication and actions of the employees in the organization. However, during the author's research period the topic of research and phenomena of interested were not revealed to the employees, thus limiting the danger of causing biased results.

Analyzing participant observation is done by three different types of observations. Primary observations are events or communication in the organization which are recorded as raw data without interpretation. Secondary observations require interpretation before recording as the event or communication requires clarification. Experiential data is observer's interpretations of the event or communication which includes perceptions and feelings. All these observations should be recorded as soon as possible for being able to implement credible analysis (Saunders, etc. 2003, 225-227). The actual analysis of observation data can be done similarly to semi-structured interviews and is explained in chapter 4.5. Analyzing data of the observations and interviews.

4.2.2 Semi-structured interviews

Gathering primary data through semi-structured interviews can present data quality issues. These issues may rise with reliability of the data, biased view on the topic, and validity and generalizability of the research (Saunders, etc. 2003, 252). To overcome issue with reliability the researcher must carefully record the design, environment and circumstances of the issue studied in the research. Also, active recording of the interview process is necessary to ensure reliable study that allows conclusion on basis of correct information. Biased interviews are outcome of purposefully seeking and interpreting information that suits the study itself. To prevent this from happening, the interviewer should have a level of knowledge about the topic that gives a holistic understanding of the issue in hand enabling recording and interpretation of different perspectives and opinions. Also, interviewer can provide interviewees with selection of relevant topics that help interviewees to prepare themselves for the discussion. Lastly, the generalizability of the research in a single case study can be achieved by a well-completed and rigorous study which is a result of careful planning, recording and interpretation of well organized interviews (Saunders, etc. 2003, 253-254, 260-261). Also, researcher should establish clear relationship between existing theory and findings from the research to demonstrate broader significance of the single case study or then provide justified criticism to the existing theory together with discussion why the theory was not applicable in the case company.

Primary data presented in this thesis is outcome of a series of information with case study company's employees. Most of the interviews were conducted with face-to-face interviews in neutral environment at the Jyväskylä University or Applied Sciences campus area. This enabled interviews in casual environment without need to hurry the interview process as the interview schedule was open. These surrounding factors made it possible to closely record and study the verbal and body language or the interviewees, and also to ask more in-depth questions about those issues the employees showed most concern and the interviewer felt to be relevant for the study.

4.3 Secondary data

Secondary data is data already collected for some other purpose than the research itself. However, by analyzing and interpreting this data can provide essential information for the research. Secondary data comes in many forms such as reports, surveys, internet sites, books and journals. Sometimes this type of data can be used as a primary source of information for research. However, access to such secondary data as organizational communication or governmental information can be restricted. Before deciding on the research process, the researcher should always consider the availability of secondary data as it can enable or limit the research itself in quite substantial manner. (Saunders, etc. 2003, 188-190)

There are many advantages in using secondary data. Gathering it is likely to require fewer resources than primary data if the availability is good. Quality of secondary data in publications such as books and papers is likely to be high as the data is usually collected from a number of sources by researchers quite familiar with the topic. Secondary data presented in longitudinal research is also likely to provide feasible way to analyze long-term effects. Also, secondary data provides easy way for comparing primary data findings and give additional contextual data for the research. To name some disadvantages it can be said that using secondary data requires throughout analysis of the data before concluding anything regarding research topics that require interpretation of the secondary data. Also, researcher does not have control over the quality of the secondary data and the way it is interpreted in the secondary data research process. (Saunders, etc. 2003, 200-204)

As for this research process, the author used a number of books and articles to create quite substantial understanding of the research topic itself. General view of knowledge management is based on such authors as Donald Hislop and Kimiz Dalkir and some additional information was gathered from other knowledge management authors for providing more diverse perspective on the topic. Research process itself was based on book by Saunders, Levis and Thornhill and also to book ‘qualitative interviewing’ by Herbert J. Rubin and Irene S. Rubin. Aim of such diverse use of secondary data is to provide broad basic knowledge of the topic which then is deepened by using methods presented in few of the selected publications. Many of the used publications are not directly quoted in this thesis but they have been used to gather diverse points of view and critique to the theory of knowledge management.

4.4 Planning the structure of the interviews

A good understating of research topic and carefully planned design are necessary to obtain convincing results from interviews. This can be done by choosing a research topic which can be studied within limitations of existing data and data acquired from the interviews and observations. Thus, research topic and questions should be well defined to create clear and organized description of the research. (Rubin & Rubin, 2005, 39)

Continuing with the design, researcher should choose interviewees who are knowledgeable with the studied topic. Finding these interviewees with first-hand experience may sometimes be difficult but it is necessary for gathering credible data. Knowledgeable persons usually are experts in the researched topic and can provide valuable data. However, in some research topics it can be difficult to determine who these persons with such expertise are. Thus, again being able to clearly define the research topic and questions can help to define interviewees with required qualities. It is also necessary to find interviewees reflecting a variety of perspectives to gather data that portrays the possible complexity of the issue in hand. (Rubin & Rubin, 2005, 64-67)

According to Herbert and Irene Rubin, from interviewer point of view, interviews require three kinds of questions; main questions, follow-up questions and probes. These questions are used to gather answers with depth, detail, vividness, richness and nuance. Depth and detail help to understand issues such as motives and meaning. Vivid answers explain emotions towards the research topic and nuance helps to gather more complex answers instead of yes or no answers. Lastly, richness is encouraged for interviewees to give long and complex answers combining previous qualities. Interviewer should give the interviewee opportunity elaborate their answers with stories and longer narratives. (Rubin & Rubin, 2005, 129-134)

Mains questions ensure that the research topic is examined thoroughly and that the research topic itself reflects into the interviews. Research questions themselves are usually too broad and abstract for an interviewee to answers. Thus, choosing a number of main questions that together cover the whole extent of the topic is necessary. However, for the interview it is better to prepare with a substantial amount of main questions but only ask three or four of them to encourage rich conversation and focus on those areas which seem appropriate for the moment. Follow-up questions are then used to obtain depth and detailed answers by exploring particular themes, concepts and ideas introduced by the interviewee. Follow-up questions are spontaneous in nature and are used to direct the conversation in desired direction resulting in more vigorous conversation. Lastly, probe questions are used to give the interviewee an opportunity to give more elaborate answers without changing the focus of the interview. They provide clarification by completing an idea or filling in a missing piece of information. (Rubin & Rubin, 2005, 134-137)

Main questions, follow-up questions and probes can be seen to form a body of data. Main questions for as a skeleton of the interview and follow-ups and probes provide the flesh. It usually takes time for someone new to the interview process to learn when to ask which kind of questions. However, this process can, and should be, practiced by conducting a pilot interview in which the whole process of the interview is explored and practices before conducting rest of the interviews. This enables doing some final adjustments to the questions and preparation process to ensure best possible results from the actual interviews. Sometimes it is not possible to conduct a large number of interviews. However, even a smaller amount of interviews conducted with good quality and preparation can provide credible research results.

For this thesis, the pilot interview was conducted with one of the Ziliot employees and as a result of that interview, the author of this thesis decided to provide each interviewee with a small info package of knowledge management couple days before the interview. This enabled noticeably richer conversation with the interviewees as they had opportunity to familiarize themselves with some of the main questions and also to understand the knowledge management point of view of their work.

4.5 Analyzing data of the observations and interviews

According to Herbert and Irene Rubin (2005, 201) data analysis is the process of moving from raw interviews to evidence-based interpretations that are those foundation for published reports. Analysis entails classifying, comparing, weighing, and combining material from the interviews to extract the meaning and implications, to reveal patterns, or to stitch together descriptions of events into a coherent. Thus, a thorough analysis of the interview data is necessary together with time and concentration for reach such conclusions which take into account hidden implications and motives behind answers. This process occurs throughout the research as first couple of the interviews can be used to determine of the research is implementable and then after every interview it is necessary to analyze the finding and consider what there is still to find out. (Rubin & Rubin, 2005, 201-202)

Analysis of the data is done in two steps. First, the researcher prepares transcripts of the interviews which include finding, refining and elaborating concepts, themes and events presented in the interviews, and then code the interviews in such manner that it is possible to identify concepts, themes and repeating phenomena. Outcome of the analysis should conceptualize answers to the research questions which enable drawing of broader conclusions on basis of combining the primary and secondary data. (Rubin & Rubin, 2005, 201) These steps require precision and commitment as analysis is a fact based process where a systematic examination of the results is necessary.

Preparing the transcripts and collecting finding is done to examine concepts, themes and events presented by the interviewees. This process requires recognition of these phenomena together with analyzing how repeatedly they occur in different interviews and in what context. Once a pattern is recognized it should be clarified and conceptualized by analyzing the events in which it occurs. This helps to identify different perspectives of the pattern as conceptualizing phenomena enables further identification of it in the other interviews. Elaborating on the quality of the phenomena identifies it, en essence, as something positive of negative which again helps to understand different points of view into this phenomenon. Lastly, these phenomena are coded to enable fast recognition from all the interviews. Coding is done by giving a phenomenon a label which then can be used identify a reference to this item by the interviewees from the transcripts of interviews. (Rubin & Rubin, 2005, 206-207) This very labor oriented process should be done trough the research process as early identification of phenomena helps to label further findings. Also, as different points of views become apartment these opinions should be taken into account. Researching topic such as management actions in multinational companies is likely to bring out positive and negative attitudes towards different managerial actions. Thus, being able to identify these views is necessary for credible research.

Once interviews transcripts are coded and different phenomena found it is possible to start defining the linkages between these events. Labeled phenomena which is present in many interviews is likely to be present also in already existing theory. Combining exciting theory with the repeating phenomena helps to draw conclusion of the event and also understand its impact to the researched topic and under what conditions they hold. (Rubin & Rubin, 2005, 224-225) After finding a number of such linkages between theory and identified phenomena it is possible to start analyze their connections with each other. Reasoning these connections and the conditions of their occurrence allows broader conclusion of the environment, community and organization. (Rubin & Rubin, 2005, 236-237) Ultimately, this process should lead to a situation where the interviews together with existing literature and theories are able to answer well defined research questions on basis of credible conclusions from primary and secondary data.

Multinational organizations always present a challenging environment for interviews and data analysis. Being able to form trust relationships with the interviewees is necessary for gathering, in some cases of even quite intimate, data through interviews. The interviews for this thesis were conducted at the end of the author's training period. For this reason there was a mutual feeling of trust between the interviewer and the interviewees as a result of working together for a period of time. This certainly would not have been the case of similar interview process would have been conducted in an unfamiliar organization. Trust and ethical commitment to not disclose the identity and answers of the interviewees even to each other made it possible to ask opinions, emotions and motives about the interview questions. This was necessary as some of the employees were rather unwilling to present their opinions and emotions about the managerial actions and required asking a number of follow-up questions to reveal them.

4.6 Ethics in research

Ethical concerns may arise when collecting primary and secondary data for research. Access to organizational information, collecting data and reporting finding all require consideration of ethical issues. Rights of those who become subject to the research and their anonymity together with maintenance of confidential data and consent to information all represent ethical issues. (Saunders, etc. 2003, 130-131)

Before any qualitative interview a moment should be spent to establish code of ethics with the interviewee. This includes agreeing on interview questions and the purpose of the research, voluntarily of answering questions, how the interview is recorded, for who the research is done and who will have access on the data later on. (Saunders, etc. 2003, 134-135) In the case of the author's research these parameters were clearly brought on knowledge of the interviewees. It was decided long before conducting the interviews that they will take place and all the interviewees knew to whom and how their interviews are used.

Ethical code of the research requires objectivity towards the findings when recording and analyzing research data. Biased opinions, selective and inaccurate recording of interviews all represent poor ethical practices and should be avoided. Also, plagiarism of existing information without crediting the original researcher is unethical and unacceptable. Researcher must be able to show own educated opinions and integrity throughout the research process. (Saunders, etc. 2003, 137-139) Even when proposing a researcher's new theory it is necessary to analyze it critically. Objectively presenting findings and analyzing the supporting and challenging information of the theory helps to form credible image. It is better to present a theory and clearly describe the situation and environment where it occurs than stating that this kind of theory would be universally applicable.

Researcher should take responsibility of the findings. Research has equal probability to make someone angry as it has making someone happy. Some issues, such as emotions, require sensitive manner of handling. Also, albeit being more of a problem of quantitative study, presenting figures without point of reference or benchmark can provoke unwanted reactions. Lastly, presenting any organizational information creates a risk of giving away sensitive information or linking organizations with poor practices can cause damage. (Maylor, Backmon, 2005, 284-286)

5 RESULTS

5.1 Basic information of the interviews and interviewees

The case company gave the author rights to interview every employee of the organization. However, as Ziliot represents diverse and multicultural organization with some of the employees located outside or Finland, it was necessary to limit the sample size to only those employees located in Finland. This included 5 employees for the interviews and the author himself observing the organization as one of the employees. Only the two Bulgarian employees who were responsible of the website coding and maintenance were not interviewed. Thus, the sample size can be said to sufficient for the research. Most of the interviews were conducted as face-to-face interviews. Only one interview was done through Skype as the employee at the time of the interview was located in France. Also, the author did ask some additional questions outside of the interviews through social media as it was necessary to elaborate some of the answers given in the interviews. All of the face-to-face interviews were recorded with pen and paper during the interviews and two of the interviews were also recorded with audio.

5.2 Tacit and explicit knowledge shared by the employees

Before analyzing the knowledge management processes and sharing, it is necessary to analyze what kind of tacit and explicit knowledge the employees possessed and how they were used in the work. As employees of Ziliot represented five different cultures, it is safe to say that the amount of tacit cultural knowledge played a key role in the company. Explicit knowledge included knowhow of different social media tools such as blogging websites and use of a variety of software to produce such items as newsletters and website content.

It was apparent in the interviews that sharing cultural knowledge possessed challenges. Such concerns as not being able to express confidentially how communication between organizations should be conducted when planning to undertake possible co-operation, and how to communicate uneasiness with quality issues in term of language and design used in publications raised above others. Other tacit knowledge present in the company included deep understanding of different types of marketing strategies used in social media and the way customers would benefit from solution of Ziliot in the best possible way. It was clear that the management know what they would like to see to be done by the employees. However, sometimes communicating these desires failed. This will be explained in broader scale later on.

From the side of explicit knowledge it was easy to recognize the frustration of the employees to the amount of different ICT-solutions used in the organization. Some of the employees were clearly annoyed by the fact that learning to use new software solutions was intervening with completing assigned tasks. Thus, it could be considered if it is necessary to implement such variety of programs or would it be faster to collect material from the employees as raw text documents and then create the final product on basis of those files. As the product of Ziliot is basically software there was no other explicit knowledge shared than how to use different programs that the employees needed.

5.3 General experience of knowledge management and sharing

Knowledge management and sharing in Ziliot was done in two ways. Google Drive was used to enable employees to work on documents which required team work and meetings usually ended with common work time where most of the team was present. This enabled flexibility necessary for employees with different timetables to contribute into the required tasks and also to work as a team working towards a common goal.

Using web-based solution to complete tasks had clearly divided the opinions of the employees. Some of the employees expressed their concern towards how tasks were completed without face-to-face interaction. For these employees the web-based solution clearly meant lack of interaction, lesser knowledge sharing and inability to provide feedback for each other's parts. Other employees felt that they benefitted from the ability to work on the tasks when they felt most productive. As the web-based documents allowed flexible scheduling and did not require physically being in a certain place at a certain time, these employees felt more confident and creative when contributing to tasks. However, all employees, regardless of their opinion to the previous matter, felt that web-based solutions did not form feeling of team or a community. Also, there was collective feeling or distrust towards the abilities of other employees in terms of being able to complete their parts on time and working to their full potential. This is one of the key disadvantages of virtual knowledge sharing process as presented at page 27 of this thesis.

Opinions towards meetings and common working time were quite similar through the Ziliot organization. Meetings were seen to be necessary to provide feedback on previous week's progress and for guiding the team forward. However, meetings themselves were usually seen as quite ineffective in term of being able to produce new content to complete the tasks. Common working time which was scheduled after the meetings had more positive results. All of the employees saw it beneficial to gather at least most of the team together and work as a team. One of the interviewees expressed this as follows:

> *I never felt like I was able to contribute in the meetings. I just sat there and listened other people's opinions of the last week's tasks and then started to work on new things once we finished. But I really enjoyed working together and I was exciting to finally get to work together with*

others. Also, I really felt like those were the most productive times when we all worked together at the same place and were able to discuss about the tasks.

In terms of knowledge management this clearly is in line with the theory. Knowledge sharing in virtual teams is much less likely to occur as feeling of trust and community with common identity is difficult to produce. This phenomenon was visible through my research period as it was clear how much more discussion about the tasks and feedback was produced when working together. Web-based documents allowed commenting but they were vague in terms of communicating opinion and elaborating on the reasons of the feedback. Knowledge sharing and learning when working together was also seen by the interviewees as one of the strong points of Ziliot practices and generally there was a feeling of excitement towards these moments. Also, asking about the developing of personal skills, these team working moments were seen as the best moment for self improvement.

5.4 Communities of practice, common identity and trust

One of the key elements for successful knowledge sharing process is a common identity to form communities of practice with other employees. Identifying oneself as a part of community is essential part of overcoming barriers of sharing knowledge as the knowledge management theory explains. Regardless of the fact that employees were working on different tasks, it was clear that they all felt like being a part of one single community of practice. This was due to the fact that many of the different tasks resulted into one single item. Trust is another crucial part of being able to form environment where knowledge sharing occurs. Forming identity towards Ziliot and being able to create trust-relationships were an important part of the Author’s study.

5.4.1 Sharing common identity

Asking about feelings towards communities of practice gave somewhat mixed results. General view was that the interviewees felt like everyone is a part of the Ziliot team but the way tasks were divided led into forming of sub-teams. However, all interviewees understood why it was necessary to organize some tasks in such way that employees with tacit knowledge of a topic work together.

> *I did not feel outsider even though some employees were working closely together and I was left alone to complete my tasks. Their task was about something that I could not help them with anyway.*

In this case the tasks were divided to match tacit knowledge of the employees. Tacit knowledge in this case was acquired through cultural background, but similarly, it could have been result of education or experience. This presents the difficulty of forming knowledge sharing process with tacit knowledge. Interviewee felt like it was difficult to take part into something that required deep understanding others tacit knowledge.

Analyzing the interviews presents one important benefit about Ziliot being a SME company. All of the interviewees felt like they are pushing the company forward. Working together and being able to see results of individual work as well as team work gave positive feelings towards the work itself.

> *I was really happy when we got the first newsletter done. Seeing the result of our team work in the company website was really exciting.*
>
> *Best part of that time we worked together was seeing how the result started to take shape. I knew what my part was and what the others did. Putting everything together really made it feel like we all are working towards the same goal.*

Seeing how individual and team work lead into something concrete helps to create feeling of shared identity. These comments points out how employees working together towards a common goal can start to identify themselves as part of a team or community of practice. Both of these comments bring out the difference between seeing a result of work as team achievement instead of individual achievement. Identity of an employee is no longer “I” but “we”.

5.4.2 Forming trust relationships between employees

It was clear from the very beginning of the research period that the web-documents do not encourage forming trust relationships between employees. Some of the following comments towards the web-documents clarify the issue:

> *I did not feel like those group documents were actually group work. I did my part and others did theirs. I didn’t see any point on commenting others’ parts because they did not comment mine.*

> *Web-documents were good for seeing that things are getting done, but somehow it was just difficult to understand others’ work. Couple of times I had to ask for others to complete their parts so that we would be ready on time.*

Both of these interviewees highlighted the same problem. Web-documents did not encourage knowledge sharing process and forming identity towards the Ziliot community. Partially this was due to the fact that common working time after the meetings was used to produce the final item such as newsletter or blog post.

There was also a situation when sharing tacit knowledge became necessary. Interviewees holding this tacit knowledge commented following:

> *I had difficulties to explain why things are done the way they are done. I tried to point out what we should do but it seemed like some of the employees did not want to listen to me and ended up doing what they felt is right. I just did not feel like I am in the position to correct them.*

As discussed before, trust relationships are key elements of sharing tacit knowledge. This comment clearly points out how the employees had not formed good enough trust relationship for effective knowledge sharing to occur. Communicating tacit knowledge is a delicate process especially when the tacit knowledge is communicated towards employees higher in the hierarchy. Ziliot being also a start-up organization highlights this difficulty when there has been only a limited amount of time to form this trust between previously unacquainted employees.

There were also some positive comments towards forming trust relationships between employees. Interviewees expressed their enjoyment of being able to use and develop personal communication skills in multicultural environment.

> *I felt like I really learned something new about working with people from other cultures. It was difficult at the beginning but later on it became easier to share my opinions with others and I felt confident that other employees listen to me.*
>
> *I was happy to see how my opinion of employees with a certain cultural background changed. Previously I have felt unease when working with people from this culture but now I really feel like I can work with them more often.*

In the Author’s opinion both of these interviewees expressed indirectly how they have begun to form trust relationship towards other employees. Asking what was the reason for this to happen, one of the interviewees commented following:

> *I guess the difference for me is that I got to spend more time with these employees and we shared similar ideas and opinions.*

The interviewee goes on to highlight the importance of finding a way of communicating that works easily. This point out one of the important issues in successful knowledge management: finding employees who, already before meeting each other, share similar values and attitudes. According to knowledge management theory, this enables easier adaptation of common identity which should lead into easier creation of trust relationship.

5.5 Knowledge sharing between management and employees

The way Ziliot organization was managed gave an interesting environment for studying managerial decisions and what effect they have on employees. At the time of the research Ziliot had two managers to guide the employees. A more distant one from the employees who was responsible for official communication between Ziliot and governmental entities and one who was responsible for managing employees and leading the public side of the organization. Both of the managers communicated with each other but most of the communication with employees was done through only the other one. This is only a brief explanation aimed to clarify the way communication between management and employees was organized.

5.5.1 Knowledge sharing within management

This is quite delicate subject to discuss in non-confidential thesis. However, couple of comments from the managers highlights the power play within the organization.

> *Sometimes it is difficult to make other to realize the importance of some decisions. We would need to be able to decide what we want to accomplish and then do everything we can to fulfill that goal.*
>
> *I have a very clear plan where I want to see the company going. But sometimes we end up doing something completely else.*

These comments reflect the differences in desired actions as an outcome of challenges in communication. It is not clear why there was a challenge like this but in the Author’s opinion it was due to insufficient trust relationship between managers leading to difficulties in sharing knowledge and understanding each other’s motives behind decisions. This kind of situation is in line with power and politics conflicts described in knowledge management theory. In the end, employees are managed towards a decision formed by management’s internal power play.

5.5.2 Managing towards a common goal and encouraging communication

Part of any good management practice is being able to guide employees towards required goal. In Ziliot this process provided controversial topic to study. Differences in management's opinions led into confusion among the employees. Some interviewees commented following:

> *It was not always clear what I was supposed to do and why employees are doing some other tasks. Sometimes I had to put a task aside and start working on a whole new thing. Also, sometimes it felt like we were doing something for the sake just doing it.*
>
> *I wish it would have been more clearly explained why I should work on a task when there is an important thing coming and others are already preparing for it. One manager is telling me to do one thing and another is telling to do something else. It is not up to me to decide which more important thing to do is.*

These are just some of the comments which define the confusion about what the common goal is. Being able to define and explain what is important how to achieve it is one of the goals of knowledge management. For employees to be able to use and share their knowledge they have to know what is needed from them. Employees need to form a common perspective about task in hand, and share and develop a common knowledge base in order to complete the task. To form a common perspective it is first necessary to understand what needs to be done and why and to share and form a knowledge base the activity itself needs to have defined result.

Interviewees expressed positive attitude towards the age structure of Ziliot organization. All employees were within age of 6 years and having such age structure enabled more casual communication among the employees and management. According to knowledge management theory sharing values, attitudes and culture help to form effective knowledge management process. While all the employees did not share the same culture, they did share similar age which helped to cross communication barriers by encouraging to less formal way communicating.

> *I know that sometimes the management did not agree on some specific tasks but at least it was easy to talk with them. I do not think I would have been able to express myself so freely if my colleagues or managers would have been a lot older than me.*
>
> *It is a lot easier to talk with someone who is at a similar age. I did not have to worry about the formality of the way we talked and it was easy to say what I thought about things.*

Employees working in international and multicultural organizations are more likely to come across communication barriers than employees working in organizations with only one culture. Analyzing these previous comments led to believe that Ziliot offers an encouraging environment for communication. As previously discussed in knowledge management theory in international organizations, regardless of cultural background, it is the organizational culture that decides how employees are able to communicate and adapt themselves into this culture. Benefit of this comes with sharing experiences, attitudes and being able to form common perspective towards tasks and work itself. Knowledge management theory states that communities of practice are self-managing entities which can perform in great level without any top-down management activities. This phenomenon was present in Ziliot case in situations when employees were able to ask for clarification of management activities leading to better defined priorities of tasks and goals. In essence, employees took action to clarify what the management could not.

5.6 Validity and reliability of the research

To validate the interviews, the author conducted two pilot interviews. One face-to-face interview and one Skype interview were done prior to the other interviews. Pilot interviews enabled the author to validate the questions by confirming that the interviewee had appropriate amount of understanding about knowledge management before the interview. Also, the pilot interviews enabled the author to make final changes to the interview questions before starting the main interviews.

Last benefit of the pilot interviews was that they gave reference about the appropriateness of the research itself and its correlation to the knowledge management theory. As the pilot study showed positive results towards the validity of the interview questions and the knowledge management theory, the author continued to conduct the actual interviews.

Interview process with the employees was rather easy in this study. The author had worked with the other employees for 4 months before the interviews. Thus, the interviews themselves did not suffer from tension between the interviewer and the interviewees. Openness and trust were one of the key elements why the author was able trust that the interviewees expressed their true experiences about working in Ziliot. It was made clear to all of the interviewees that the ethics of the research state that the interviews remain anonymous and the answers are presented in such way that it is not possible to identify the interviewee. This enabled reliable answers for the interview questions and makes author to be more confident with the reliability and quality of the research.

Results of the interviews correlate with the knowledge management theory. This enables the author to conclude that thesis research is reliable regardless of the rather unique environment of the study. Ziliot presented an environment from which it is difficult to generalize some of the results. This is explained in more detail in chapter 6.3. Research limitations and ideas for further studies. In short, Ziliot is a unique environment with its multicultural employees and start-up stage. However, as knowledge management states, tacit knowledge can be cultural knowledge or other kind of highly specialized knowledge which is difficult to express. Thus, different cultural knowledge in Ziliot can be similarly analyzed than other tacit knowledge that may be present in other kind of organization. Therefore, it can be concluded that the research should be valid in organization similar to Ziliot but with lesser cultural mixture. However, the author would like to see this conclusion to be tested in such organization for confirming this statement.

Theory used by the author of this thesis represents resent publications about knowledge management. Thus, the knowledge management theory applied through this thesis can be stated to represent today's knowledge management. Most of the theory presented in this thesis is by Donald Hislop from 2009 and Kimiz Dalkir from 2011. Using relatively new and well established publications give the author of this thesis confidence in the reliability of these theories and their adaptability into practice.

Start-up stage of the case study company should be taken into account when analyzing the results. This is one disadvantage of the author's research as the organizational environment of the case study company was not yet fully established. However, it was interesting to see how the organizational culture developed over time and started to form its own communities of practice. This progress is in line with the knowledge management theory and builds the author's confidence towards understanding of the knowledge management theory and its implementations in practice.

6 DISCUSSION

6.1 Conclusion

Based on the interviews it is possible to conclude that the environment of Ziliot organization causes difficulties in the knowledge sharing and the knowledge management. A multicultural work force together with SME organization possesses challenges in many aspects. Some of these challenges are caused by the fact that the organizational culture is still evolving as the company itself is at a start-up level. However, being a SME organization has encouraged the employees to contribute and rewards these contributions with tangible results on organizational progress.

The first question aimed to study the difficulties in the knowledge sharing and the knowledge management in Ziliot gave rather clear answers. It can be concluded that difficulties in these processes are caused by management's poor internal communication, complex ICT-systems leading to lack of communication between employees and by the multicultural work force itself. Poor communication internal communication in the management caused lack of focus in determining the common goal and direction of the organization. Employees were not always sure how to prioritize the given tasks and suddenly switching between these tasks led into confusion. Complex ICT-systems used in Ziliot hindered the knowledge sharing process, as well as the way trust relationships formed between employees. ICT-systems also did not enable building of common identity within the communities of practice as the tasks conducted through these systems were seen as individual work rather than team work. The multicultural nature of the work force in Ziliot caused also some problems. Throughout the research period it was clear how cultural barriers prevented effective communication between the employees. Overcoming these barriers needed a lot of work and spending time together with other employees. However, this situation developed towards increasingly better communication as the employees started to form their own community of practice and supporting organizational culture.

Some smaller difficulties in the knowledge sharing process and knowledge management rose with the ways how meetings were organized. Employees did not see meetings as a good environment for the knowledge sharing process as the managerial controversies prevented effective decision making in these situations. Thus, contributing into the decision making was seen as rather unfruitful. Also, some difficulties were experienced in situations where employees had to explain tacit knowledge to other employees. Not being able to effectively communicate this knowledge was a result of still developing trust relationships in the organization. Lack of trust caused interviewees hesitate on which way to communicate their tacit knowledge as it was not sure how to express this knowledge without offending colleagues.

Second question was aimed to find out about the best practices in Ziliot organization regarding the knowledge sharing and the knowledge management. Best practices were found in the way working together enabled the effective knowledge sharing process by encouraging communicate in informal way and by enabling employees to form common attitude towards tasks in hand. This slowly led into development of community of practice combining mix of cultures into one unique organizational culture. This culture enhanced feeling of shared identity and resulted in effective feeling of “we” rather than “I”. Forming trust relationships in these situations created increasingly better knowledge sharing process between employees enabling also developing of better knowledge management practice. One of the key finding of this study is that the community of practice formed by employees was ultimately able to clarify common goal for the work, as well as clarify some of the ineffective internal communication of the management. This phenomenon occurred when the employees required that the management agrees on how to prioritize different tasks in a way that they can be completed in an effective way.

Some good practices also occurred when the community of practice in Ziliot started to form itself. Management of the organization enabled this to happen gradually by itself rather than opposing the development of trying to direct it to desired direction. By applying rater light managerial actions the community of practice was able to unify the cultural mixture leading to one organizational culture. Beneficial for this process was the fact that employees shared similar age and that the communication between employees and management was done in rather informal way. This way of communication enabled employees to share their opinions and attitudes which led into developing of knowledge sharing process in the community of practice.

The last question of the research was aimed to find ways to improve the knowledge sharing and the knowledge management practices in Ziliot. Conclusion of this topic can be found below.

6.2 Suggestions

It is easy to conclude from the interviews what are the areas where the knowledge sharing process needs improvements. ICT-systems and the knowledge sharing process in them need a lot of work. Internal communication of the management needs to be more efficient. Also, the organizational culture itself is only started to take shape and still requires time to build.

For aforementioned reasons the Author of this research can suggest following. Management of Ziliot needs to be more unanimous when it comes to the managerial decisions, coordinating tasks, listening feedback from the employees and planning future actions. This could be achieved by referring to the essentials of the knowledge sharing process. Trust relationships, sharing identity and being able to understand each other are key elements when it comes to the effective decision making. Also, communicating together more closely with the employees should enable more efficient decision making as the communication process itself does not require as many steps as it does at the moment. This means that the weekly meetings, which are at the moment seen as quite ineffective, would benefit from better knowledge sharing process. Both of the managers would be taking part and form a unanimous decision whit the employees rather than communicate through only one of the managers those decisions which are formed behind “closed doors”. Coordinating employees to work with the ICT-systems needs to be built on better practice. At the moment there is almost no communication between the employees when tasks are done in web-based platform. At the moment Ziliot is not at a stage where it can guide employees towards this kind of a process which disables the knowledge sharing process. Of course ICT-systems are necessary for the tasks to be done, but regardless of this, the tasks themselves should be done only partially in such environment. Current tools like Asana and Google Drive lack tools for effective communication and Ziliot should look into other options enabling better internal communication. Such intranets are notoriously had to create but at Ziliot’s current stage it would be better to concentrate on the effective communication when working as a team and start building ICT-systems from ground up rather than using tools that inhibit one of the core competences of the organization which is the multicultural background of the employees that enables broad spectrum of tacit knowledge.

Focusing on the collective team working that has been one of the best practices in Ziliot should not be overlooked. Employees have just started to form their own community of practice which has enabled effective communication and sharing of tacit knowledge. Continuing this practice is essential for further success of the organization itself. However, Ziliot is still lacking proper tools to effectively capture this tacit knowledge shared in these occasions. It is important to be able to, not only share, but also capture this valuable knowledge for further use. Creating and building a common shared knowledge base where employees are able to contribute without demand is vital. This could be achieved with active recording of the whole team work process and by storing the shared knowledge actively without delays. Essential for this kind of a tool is that it enables storing, managing, updating and presenting information in a timely manner. Employee turnover is likely to be a problem for SME sized company. Thus effectively making most of the current knowledge resources is vital for securing future success.

6.3 Research limitations and ideas for further studies

Main limitation of the Author's research comes with the size of the Ziliot organization. It is difficult to generalize any conclusion for more extensive use when the conclusion comes on basis of a company with less than ten employees. Multicultural backgrounds of the interviewees also possess challenges with the interview process as well as with the analysis of the data. Maintaining unbiased attitude when both researching and working in the organization can be also difficult.

Culturally rich environment represents an interesting subject for knowledge management research. Cultural knowledge is tacit knowledge. However, it still is comparable to other types of tacit knowledge such as being highly specialized into using a certain type of machinery. Thus, it can be said that cultural mixture in Ziliot is comparable to a rich mixture of skill in an organization with employees representing only one culture. Also, when it comes to communities of practice all organizations from their own organizational culture. Thus, the organizational culture of Ziliot should still give quite comparable environment for a research which takes into account such issues as shared attitudes and working towards a common goal.

Because of the unique environment of the Ziliot organization it would be interesting to find a similar start-up organization with employees representing only one culture. This would enable seeking validation for the conclusions made in this research and compare how the knowledge sharing and the knowledge management processes differ from those in Ziliot. Regarding Ziliot it would be interesting to research how the knowledge sharing process would change if the employees would continue working closely together and in one space. This would enable comparison with the amount of time needed for completing tasks and also measure how the knowledge capturing process would develop in future.

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APPENDISES

Appendix 1. Interview Questions

Job responsibilities of the interviewee and nationality

A Brief introduction to the knowledge management and the knowledge sharing, explanation of the share/hoard dilemma with knowledge worker, meaning of the communities of practice

General information about the interviewee and his/hers work

What are your main responsibilities/tasks in Ziliot?
What knowledge and information do you need when working with these items?
What tools do you use in your work? Can you communicate with other employees through these tools and share knowledge?

Knowledge sharing between employees

How often do you communicate with other Ziliot employees?
Is this communication effective? How do you see different cultures affecting knowledge sharing process?
How often do other employees contact you for information?
What problems/difficulties occur when you communicate with other employees and try to share your knowledge with them?
What are the so called "best practices" in Ziliot regarding communication, the knowledge management and the knowledge sharing?

Organizational environment

In your opinion, how does the management of Ziliot perform?
Does management encourage communication between employees and sharing of knowledge?
Do you feel like you can trust the management and they take your knowledge/opinion of issues into count?

How would you improve the communication and the knowledge management in Ziliot? What would you do differently?