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THE TACIT POWER

Case study Maintpartner

Thesis

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ABSTRACT

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<p>The case company for this thesis is operating in industrial maintenance. The company operates in several countries in Europe including Finland. The company has offices in many cities in Finland. Competition in the industry is fierce, and managing tacit knowledge processes provides the organization the competitive advantage needed to succeed.</p> <p>The aim of this thesis was to perceive the current situation of tacit knowledge sharing in the case company. The objective was to get a general image of the situation and to provide suggestions for improvement. Two questionnaires and two interviews were used as research methods to get the personnel's opinions and viewpoints of the topic and current situation in the organization. The theory section provided the information on the main topic of tacit knowledge. In the empirical part the respondents' results were reflected to the theory section. The assumption was that the organization would benefit from focusing on tacit knowledge sharing processes as there are several situations in work life that lead to losing the professional know-how and the personal tacit knowledge. Many employees are about to retire soon and to maintain their tacit knowledge in the organization would be important.</p> <p>The finding was that the company has not currently focused on the tacit knowledge management processes. The personnel realized the importance of the topic, but there seemed to be a lack of organization-wide guidelines and resources. Suggestions were given to give options for tacit knowledge sharing processes. The conclusion was that the organization would benefit from managing tacit knowledge sharing processes. If the company invested in the tacit knowledge management they could be able to differ from the competitors.</p>		
Key words Tacit knowledge, knowledge sharing, knowledge management, competitive advantage		

TIIVISTELMÄ OPINNÄYTETYÖSTÄ

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<p>Opinnäytetyössäni tutkittu yritys toimii teollisuuden kunnossapidon alalla. Yritys toimii useassa Euroopan maassa, myös Suomessa. Yrityksellä on Suomessa toimipisteitä useassa kaupungissa. Kilpailu teollisuuden alalla on kovaa. Hiljaisen tiedon hallinta voisi tuoda kilpailuetua yritykselle mahdollistaen täten yrityksen erottumisen kilpailijoistaan.</p> <p>Opinnäytetyön tarkoituksena oli hahmottaa tämänhetkinen tilanne hiljaisen tiedon osalta yrityksessä. Tarkoituksena oli saada yleiskuva nykytilanteesta, ja antaa ehdotuksia ja vinkkejä kehitysmahdollisuuksista. Tutkimusmuotona käytettiin kahta haastattelua sekä kahta kyselyä jotta henkilöstön mielipiteitä ja näkemyksiä tämän hetken tilanteesta voitiin hahmottaa. Teoriaosa antoi tietoa opinnäytetyön pääaiheesta ”hiljainen tieto”. Empiirisessä osassa henkilöstön vastauksia heijastettiin aiemmin kirjoitettuun teoriaan. Ennuste oli että yritys hyötyisi hiljaisen tiedon hallinnasta, sillä työelämässä on useita tilanteita jotka johtavat hiljaisen tiedon kadottamiseen. Yrityksessä on useita työntekijöitä jotka jäävät pian eläkkeelle, ja olisi tärkeää säilyttää heidän hiljainen tietonsa organisaatiossa.</p> <p>Johtopäätös oli että hiljaisen tiedon jakamiseen ei ole tällä hetkellä keskitytty yrityksessä. Henkilöstö ymmärsi aiheen tärkeyden, mutta koko organisaation kattavia ohjeita tai resursseja ei ollut. Ehdotuksia annettiin jotta vaihtoehtoja hiljaisen tiedon jakamiselle pystyttiin tarjoamaan. Jos yritys keskittyisi hiljaisen tiedon hallintaan, päätelmänä oli että organisaatio voisi saada kilpailuetua erottuakseen kilpailijoistaan.</p>		
Asiasanat Hiljainen tieto, tiedon jakaminen, tietojohdaminen, kilpailuetu		

ABSTRACT

TABLE OF CONTENTS

1 INTRODUCTION	1
2 KNOWLEDGE MANAGEMENT	3
2.1 What is knowledge management	3
2.2 Knowledge management processes	5
3 TACIT KNOWLEDGE	9
3.1 What is tacit knowledge	9
3.2 Why to share tacit knowledge	11
3.3 How to share tacit knowledge	14
3.3.1 SECI-model	18
3.4 Challenges in sharing tacit knowledge	21
3.5 Advantages of sharing tacit knowledge	22
3.6 Disadvantages of sharing tacit knowledge	24
3.7 Examples – Practices and solutions in organizations	26
3.7.1 An industry example	27
3.7.2 Fiskars	28
3.7.3 RAY	28
4 CASE STUDY: MAINTPARTNER KOKKOLA	29
4.1 Importance of tacit knowledge for the company	29
4.2 Research objectives	30
4.3 Research methods and process	30
5 RESEARCH RESULTS	32
5.1 The analysis method	32
5.2 The analysis on the responses	33
5.2.1 Personal about tacit knowledge	33
5.2.2 Current situation in the organization	34
5.2.3 Advantages and organizational inducement	35
5.2.4 Disadvantages and organizational barriers	39
5.2.5 Practices of sharing tacit knowledge	44
5.2.6 Methods to share tacit knowledge	47
5.2.7 Respondents' suggestions	49
6 CONCLUSION AND RECOMMENDATIONS	52
REFERENCES	
APPENDICES	

1 INTRODUCTION

The case company for this thesis is the company where I have worked as a part-time and summer substitute for 1,5 years. The company is operating in industrial maintenance. The idea for the thesis topic became from an employee of the organization concerned. The thesis process was rather long and was executed in opposite order to usual thesis process. Due to these time and organizing issues the questionnaires and interviews were executed as a first part in the thesis process. Later the theory and analysis were written.

The aim of this thesis was to examine the sharing of tacit knowledge in the case company. The objective was to find out the personnel's opinions on the current situation of sharing tacit knowledge, and to provide suggestions for taking actions in tacit knowledge management. The assumption was that the organization would benefit from investing in tacit knowledge management. The supposition was that the company has not currently focused on the topic of tacit knowledge. However the impression was that the employees would have a huge amount of tacit knowledge that could be utilized to benefit the organization.

In the beginning of the theory section the concept of knowledge management is shortly explained from the knowledge management processes viewpoint. As the background was given, the main topic of tacit knowledge is more deeply discussed. Based on the answers from questionnaires and interviews the current situation was analyzed and suggestions were given. The idea was to examine the opinions of the whole personnel on the subject, and to reflect their answers to the theory section. Two questionnaires and an interview were used as research methods to understand employees' and team supervisors' viewpoints and opinions about tacit knowledge within the organization. Questionnaires were made to gather quantitative information, and interviews to get the deeper, qualitative, information. The interviews were mainly made to give the interviewees an opportunity to give open and wider answers. The aim of the questionnaires and interviews was to gather general data, not to compare the managers and the rest of the personnel or stress the differences in their responses.

The subject of tacit knowledge is, or should be, important for the company. Retiring of the baby-boom generation is accurate. These retiring experts have deep professional knowledge that is a huge benefit for the company if this knowledge manages to stay in the

organization. The work life nowadays is very hectic and upbeat. This means that the companies are profit oriented, employees are busy, and the trend is to change work places often during the working career. The busy nature of work life makes it harder for the companies to keep the know-how inside the organization. However, at the same time the competition is also much harder, which is the reason why companies should focus on keeping the tacit and explicit knowledge inside the organization to gain competitive advantage.

I would like to thank the company, especially R. Pottala, for enabling me to write my thesis for this specific organization.

2 KNOWLEDGE MANAGEMENT

This chapter briefly explains the basics of knowledge management. The term knowledge management is explained and the background related to the main topic tacit knowledge is presented. Knowledge management is being examined from the cultural aspect focusing on the importance of individuals. A foundation for tacit knowledge management and tacit knowledge sharing is examined and demonstrated.

2.1 What is knowledge management

At the moment the business world is going through a change that Lester Thurow (2003) called the third industrial revolution. This means that we are shifting towards a knowledge-based economy. Knowledge has become the most important resource for companies and organizations. This change has raised the discussion of knowledge management. However, even though the importance of knowledge has been realized the challenge is to find ways to manage and utilize the knowledge efficiently. (Nonaka, Toyama & Hirata 2008, 1.)

Knowledge management is one of the most important factors when trying to cope in the competitive markets. The competition between companies has increased remarkably. Organizations must constantly think of new ways of improving their quality of services and products. However, knowledge management is not a new concept. Over time companies have managed knowledge in different ways. Nowadays the term “knowledge management” has only been created for deeper exploration and understanding of the techniques and approaches for efficient utilization. (Brelade & Harman 2003, 1.)

There are several definitions for knowledge management. One of the most common is Bryant Duhon’s (1998) viewpoint on the subject: "Knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual workers." To summarize this, knowledge management means successfully capturing the knowledge that exists inside the organization, and to be able to utilize and share this knowledge in the organization. In the processes it is important to remember the individual, cultural factors and the wideness of the concept. (Koeing 2012.)

A concise description for knowledge management is presented by Dr. Satya Shah (2014): “Knowledge management is an integrated approach of creating, sharing and applying knowledge to enhance organizational productivity, profitability and growth.” This description specifies that the aim of the knowledge management is to increase the profitability of the organization. In addition, the description stresses the importance of being able to create and preserve useful and truthful knowledge inside the organization. The realistic knowledge should be then successfully utilized for the organization’s benefit. The second description is more individual centered. “Knowledge management is the discipline of enabling individuals, teams and entire organizations to collectively and systematically capture, store, create, share and apply knowledge, to better achieve their objectives (Shah 2014).” This viewpoint is based on organizations’ responsibility to enable individuals to realize their knowledge and to share it. When individuals realize the knowledge they owe, the process eventually affects the organization’s profitability. (Shah 2014.)

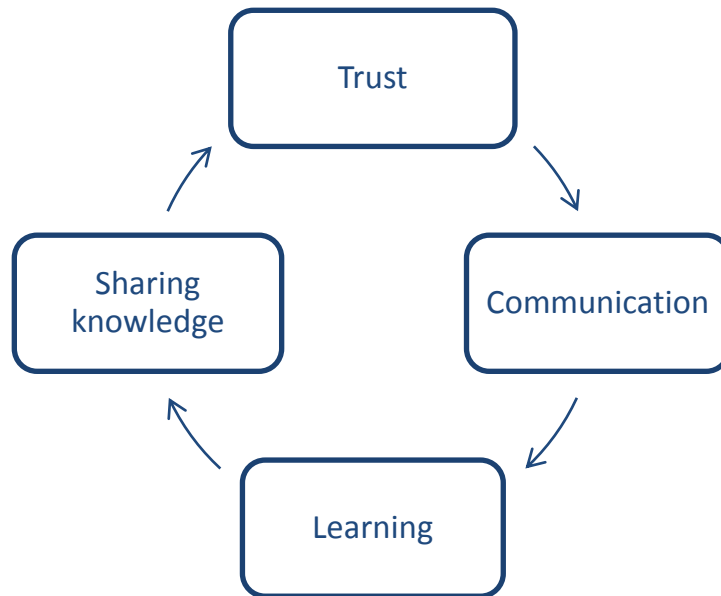
According to Viitala (2003) knowledge management includes all the activity that is focused to obtain, capture, improve and reform the knowledge that is essential for the organization. Knowledge management strengthens the organization’s competitiveness and operations. Organizations have begun to understand the importance of knowledge management as it helps to succeed in change processes, to differentiate the services and improve the efficiency. To be able to succeed in knowledge management, the highest management must realize that the cornerstone is to understand the individuals’ knowledge processes. Knowledge management therefore is all about individuals and their knowledge. It is not the organizations who have the knowledge, but the people inside the organizations. (Virtainlahti 2009, 68.)

The term knowledge management was presented a few decades ago, in 1990s. First the idea of knowledge management was centered on information technology. Organizations wanted to gather information and data to be stored as written form on computers. Nowadays companies have realized that the point is not the data, it is the organizational culture. It is not sufficient enough to store knowledge utilizing information technology. Human and cultural factors need to be utilized to succeed in knowledge management. Having realized the importance of culture, Nonaka and Takeuchi (1995) created their ideas of tacit knowledge. The recognition of human and cultural importance raised the discussion of human resources (HR) departments and activities. (Koeing 2012.)

2.2 Knowledge Management Processes

Organizations need to have the four basic building blocks working well to create a basement for successful knowledge sharing processes. First building block is trust. Stephen Covey (1990) said that trust is the highest way of showing one's motivation. He continues that trust is a necessity for the organizations, and it enables efficient co-working. Good organization culture improves the motivation and the creation of trust. When the culture is not too competitive the employees are willing to communicate, and they do not feel that they should keep the knowledge by themselves. The knowledge and professional know-how should be respected to ensure that the employees are eager to share their knowledge. (Shah 2014.)

The second building block is open communication. Communication helps to create trust, and it makes co-operating fluent and efficient. The employees should always be well informed about all the important issues. When they have current information and they know why it is essential, they can build their trust towards the organization. The third building block is learning. When individuals learn new, they gain professional know-how and become more confident and trusting. When there is trust on the background, learning naturally leads to the willingness of sharing the knowledge. Knowledge sharing then is the fourth and last of these building blocks. This model of four basic building blocks for knowledge management processes forms a continuous cycle. This continuation is demonstrated in the following Graph 1. (Shah 2014.)



GRAPH 1. Building blocks for knowledge management processes (adapted from Shah 2014).

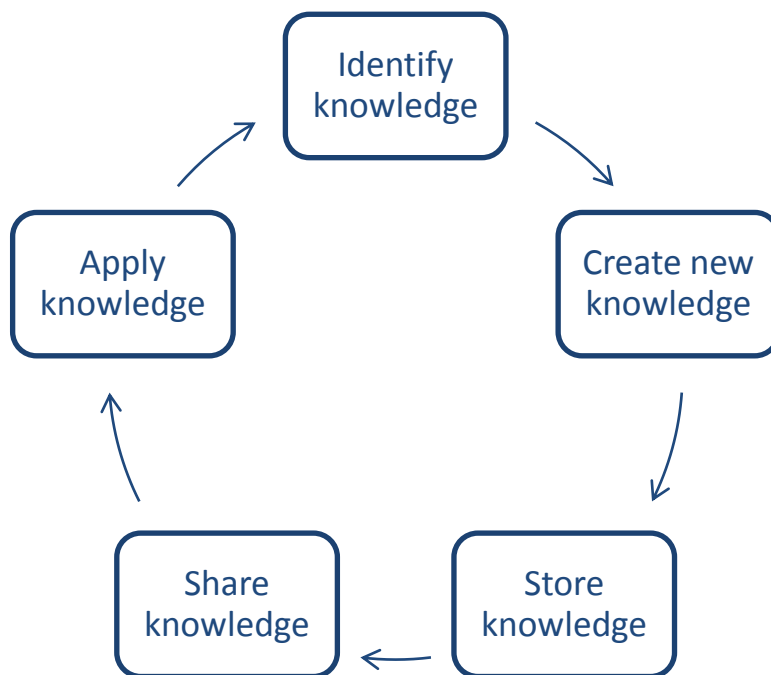
In most of the organizations there are changes going on all the time. New innovations, improvements, new softwares, experiments, tools and methods are being applied. Change management has become a vital managerial part in organizations. As changes have become so frequent it is a necessity that the changes are carefully managed. Successful change management is one way to support the basement (see Graph 1) for all knowledge sharing processes. Successful leading of changes improves the feeling of trust and employee satisfaction. As mentioned earlier, trust encourages employees to communicate, learn and share knowledge. Change management has become a full-time job for managers. (Harvard Business School Press 2005, 133-134.)

Changes often make the employees reserved and worried. Several questions arise, and employees often talk about all the rumors and guesses about the change between other employees. This causes unnecessary speculations and worry. According to Peter Thies there are three main questions that the employees have in mind. What will happen in future? How should I react to the change? Is the change under control? All these questions are so called “me” questions. The basic question behind all these is: What will happen to me? The leaders must be ready and able to answer to all of the employees’ questions. The

leaders must communicate with the employees constantly. The information given must always be accurate and the change leaders must be able to explain why the change is being executed. Employees should not have to worry about their job, or have any unclear issues over the change. Readiness to answer to employees' questions will make the whole personnel trustworthy and satisfied. The employees should be always listened to make them feel that they are being heard and they have a possibility to affect to the change. The changes should not be forced – the result is only lack of motivation and a feeling of disregard. (Harvard Business School Press 2005, 134-137.)

One of the good models for knowledge processes is the five step model. The model implements the five issues that should be noticed to successfully manage and share knowledge. At first, the knowledge that is inside the organization needs to be *identified*. The managers need to find out where the knowledge is in the organization and what kind of knowledge this is. They need to find out what kind of knowledge each employee has, and what kind of knowledge is stored as a data in information technology systems. When organization has identified the existing knowledge, they can *create new* knowledge and learn based on the findings. The organization is aware of the knowledge, and is therefore able to create new knowledge in future. The organization is also able to decide what to do with this knowledge. To specify, it should be noticed that not all the knowledge is essential to share to the others. (Shah 2014.)

Next step is to *store* the knowledge. Previously knowledge was stored mainly in databases, but nowadays it is realized that more important is to store the knowledge in human beings. As knowledge can be stored in both databases and in human beings, the organization needs to know what kind of knowledge should be stored in each form. Explicit, codified, knowledge can and should be stored in databases. Tacit, personal knowledge should be stored in human beings' minds. As the knowledge is stored, it should also be *shared*. Choosing the sharing method depends on the nature of knowledge. When trust is on the background, the individuals are willing to share their knowledge. Data can be shared in written form via e-mails, internet and instruction papers. Tacit knowledge needs to be shared in face-to-face interaction by communicating. When knowledge is shared, also new knowledge can be created and new information can be learned. This means *applying* the knowledge in the organization. The employees can act based on the experiences and learned knowledge. (Shah 2014.)



GRAPH 2. Five-step model for knowledge processes (adapted from Shah 2014).

However, it should be remembered that not always the application turns out to be successful. There might be some problems or findings when the knowledge must be re-identified and examined. This fact means that this model for knowledge processes is also a continuous cycle. This cycle is shown in Graph 2. (Shah 2014.)

3 TACIT KNOWLEDGE

This chapter focuses on the actual topic of this thesis; managing the tacit knowledge sharing processes. First the term tacit knowledge is being explained. The questions of why and how to share tacit knowledge are being answered. As tacit knowledge is a rather challenging topic, the main difficulties faced in tacit knowledge sharing are provided. Finally, the advantages and disadvantages of sharing tacit knowledge are being discussed.

3.1 What is tacit knowledge

Nowadays business life is constantly changing. Explicit knowledge, which means stored and written-down knowledge, is no longer providing the competitive advantage that companies need. Tacit knowledge is becoming more and more important. Companies get the best benefit when they gather and manage both explicit and tacit knowledge. (Mayer 2000, 57-58.)

Knowledge management as a wide concept is a real challenge for the organizations. It is challenging because the term, knowledge, includes such a diverse content. The challenge in knowledge management is that knowledge can be very personal and tacit by nature. The idea of tacit knowledge was first presented by Michael Polanyi in *The Tacit Dimension* (1966) "We can know more than we can tell". This means that tacit knowledge is highly personal and hard to realize or share. (Ichijo & Nonaka 2006, 59-60.)

Michael Polanyi created the term of tacit knowledge already in mid-1950s. He examined the process of personal knowledge creation, and stated that knowledge is highly personal having always tacit dimensions. The earlier mentioned citation from his book *The Tacit Dimension* (1966) summarizes the idea of tacit knowledge: "...we can know more than we can tell." Tacit knowledge is highly personal knowledge. According to Polanyi (1958) tacitness refers to a skill or ability to do something that is based on personal experiences and learning by doing. As tacit knowledge is based on personal viewpoints, it is very hard to formalize or communicate. All the knowledge or information that a person owns has a personal contribution of knowing this piece of knowledge. People usually are able to do things without even thinking about how they do them. This is simultaneous, tacit know-how of routine tasks. (Grant 2007.)

To continue with the description, tacit knowledge is non-verbal and very routine based. People are able to act according to the learned tacit knowledge, but it would be almost impossible to express the detailed contents of this knowledge. Gilbert Ryle (1947) divided two kinds of knowledge; knowing how and knowing that. This means that a person can *know that* with excel it is possible to make calculations, but he/she still doesn't *know how* to do it. This "know how" includes the tacit dimensions that can be also explained as professional know-how. Explaining this know-how that largely consists of tacit dimensions is extremely hard. Knowing how to do something is easy, but trying to explain this to someone is hard as the tacit knowledge is so deep and hard to realize. (Niiniluoto 1989, 51-53.)

Virtainlahti (2009) also describes tacit knowledge as professional skills and professional knowledge. She gives a great example of tacit knowledge of a baker. The baker knows when the dough is perfectly mixed, but it would be almost impossible to describe the looks or consistency of the perfect dough. Virtainlahti continues that with the help of tacit knowledge the working will become more fluent. As the work tasks have become routine the working will be faster and easier. Moreover, the quality of work will improve and decision-making will become easier and more efficient. However, in industrial sector the new innovations and new machinery sometimes lead to rapid changes in tacit knowledge. In industry the tacit knowledge often concerns the machinery and working methods. Some of the knowledge stays the same, some changes often. Because of these variations the management must be aware of all these changes, tasks, processes and working methods to be able to keep the tacit knowledge up-to-date and managing the sharing of current and actual knowledge. An example from industrial maintenance is given in chapter 3.7.1. (Virtainlahti 2009, 39-53.)

Japanese have examined the topic of tacit knowledge a lot. They also master management of tacit knowledge and have several successful companies. Michael Polanyi has written two books; *Personal Knowledge* (1958) and *The Tacit Dimension* (1966) where he discusses the creation of knowledge and the two dimensions of knowledge; tacit and explicit. According to him tacit, personal knowledge is always in connection with explicit, formal knowledge. The Japanese Nonaka and Takeuchi (1995) suggest that Japanese prefer the importance of tacit knowledge, whereas the Westerners focus too much on explicit knowledge. Nonaka and Takeuchi (1995) also support Polanyi's idea of these two dimensions. Explicit knowledge can be referred as codified knowledge. It is systematic

knowledge that can be easily transmitted into formal language and can easily be shared. Explicit knowledge is easily accessible and visible. It can be measured and saved in databases. Nonaka and Takeuchi (1995) have created an idea of “knowledge conversion” and a SECI -model (see Graph 3 in Chapter 3.3.1) to explain the co-operation between tacit and explicit knowledge. Examples of explicit and tacit knowledge are being demonstrated in Table 1 below. (Grant 2007.)

TABLE 1. Examples of explicit and tacit knowledge (adapted from Virtainlahti 2009, 46).

EXPLICIT KNOWLEDGE	TACIT KNOWLEDGE
Law, regulations, rules	Practice, routine
Guidebooks	Adapting rules and regulations
Process descriptions	Gimmicks
Internet, intranet	Gut feeling
Literature	Discretion
Documents	Experience
Theories	Professional skills
etc.	Senses
	etc.

Based on my experience, as tacit knowledge has become a competitive advantage to the organizations it is important that the organizations can utilize it. The organizations lose the tacit knowledge they have when employees change the work place or when they retire. Both of these are very current topics. The trend of changing work place is actual nowadays. This however could be minimized by motivating employees to stay in the organization. Retirements are actual as the baby-boom generation is retiring.

3.2 Why to share tacit knowledge

Age management and tacit knowledge sharing are closely related. According to Moilanen (2010) age management means realizing and considering generations, employees in different age and employees’ differing experiences. This is related to the topic of sharing

tacit knowledge because if an organization manages different generations, the tacit knowledge will be better shared.

The benefits of age management include three main parts. The well-being of the personnel will improve, the personnel commitment will increase and the profitability grows. When the well-being of the employees increase, they are more motivated to work and more positive towards the organization. This will lead to commitment which increases the feelings of safety and trust. When the employees trust the organizations and co-workers, they are more willing to share their knowledge – also the tacit knowledge. All of this inevitably leads to growth in profitability. (Moilanen 2010, 33-34.)

The following graph is designed by Moilanen (2010) for organizations to perceive and evaluate their need for taking actions in age management to retain the tacit knowledge inside the organization.

TABLE 2. Need for age management (adapted from Moilanen 2010, 54).

		Yes	No
1.	The mean age of employees is high, more than 50.		
2.	Many of the managers will retire within 2-3 years.		
3.	Organization is not able to hire young employees enough.		
4.	There are no experienced enough followers for the employees about to retire.		
5.	There are no enough ways to share the knowledge.		
6.	The organization is not able to notice the aging when organizing the work.		
7.	The managers have not enough experience to support the co-operation between generations.		
8.	There is no time or know-how to train the young employees.		
9.	There are no career plans or ways to improve career for employees over 50 years.		
10.	The aging employees should be kept motivated, active and improving.		

Table 2 helps determining the possible need for age management, and thereby tacit knowledge sharing processes in the organization. If five or more points are crossed as “yes”, the actions for age management and tacit knowledge sharing are necessary and

would be very beneficial. The key to be able to succeed in managing tacit knowledge processes is that the leaders and management realize the need for this concept. It is a necessity to know the mean age of the personnel. Then the organization knows if some changes in employees' work tasks should be made or new young employees should be hired. (Moilanen 2010, 53-54.)

The need for managing tacit knowledge exists in most organizations. Managing tacit knowledge and successfully sharing the knowledge is a precise process that must be carefully planned beforehand. *Identifying* the tacit knowledge is not an easy task. The experienced employees' knowledge should be examined to have the real-time information of the knowledge existing. Quite often the importance of tacit knowledge is noticed only when a new employee takes over the experienced employee's tasks. The challenges and lack of information are signs of tacit knowledge that has left with the experienced employee. To prevent this disappearance of tacit knowledge, the management must *value* the tacit knowledge. Employees should feel that their work is being appreciated and the organization values their professional know-how and experience. Valuing the employees and their tacit knowledge helps in *capturing and retaining* the knowledge within the organization. Employees are happy to continue working in the organization, and the tacit knowledge can be kept in the organization and documented for further usage. Documentations can be utilized with new employees, and for example in surrogacies. The efficient *sharing* of tacit knowledge is done in face-to-face interaction having employees working together. (Korpimies 2011.)

In sharing processes the tacit knowledge can be discussed and examined by several employees of different generations. The processes lead to the generation of new updated knowledge which enables the improvement of the organization's operations, and its services and products. During the process the most common mistakes and errors should be remembered to avoid. One of the most common mistakes is that the organization does not value the know-how of the experienced employees, and they easier end up leaving the organization. The important tacit knowledge is lost, and in worst cases it transfers to the other companies' benefit. Some organizations tend to think that only the management has the valuable tacit knowledge. The experience is highly valued when hiring a new manager to the higher positions, but the importance of experience is forgotten with the other, "field work" employees. The last of the major errors is that not all the information should be shared. It is possible that some tacit knowledge, for example business secrets, would be

good to keep within a small group. The accuracy of the knowledge should be checked before sharing the knowledge to others. In addition, one noticeable aspect is that as tacit knowledge is highly personal, prejudices or personal opinions should not be shared. False information can only be harmful for the organization. (Korpimies 2011.)

An important issue for managers to realize is the importance of trust. When talking about tacit knowledge it is hard to get people motivated to share their tacit knowledge. People can feel very protective of their knowledge. They can feel that their ideas are being stolen if they share their knowledge with others. They might have no loyalty towards the organization, thinking that “I only work here and that’s it”. Also short-term projects may lead to keeping the information if people think it is of no use after a while. In addition, a big reason for not sharing the knowledge is disrespect from management. In practice, it can mean some bad experiences that lead to the fact that employees have no motivation to share knowledge. One way to make them motivated is trust. As mentioned before, trust is the highest form of human motivation. People must trust each other to be willing to share knowledge. (Shah 2014.)

3.3 How to share tacit knowledge

Successful sharing of tacit knowledge requires face-to-face interaction. The most common, and very efficient way is the expert-novice model. Quite often it is thought that the younger, the novice, learns from the older, the expert. Actually the benefits occur when both share their ideas and own opinions, also the younger person shares his/her own ideas. Therefore they are able to share thoughts, but also create new knowledge. The face-to-face interaction is usually referred as the best way of sharing tacit knowledge. However, to succeed in this the people should get along well with each other, and be motivated. Documentation is also a popular way, but it has some severe problems. Documentation often means only storing the data in a written form, and lacking the oral interaction and common learning. (Moilanen 2010, 188.)

Although the emphasis in this thesis is put on novice-expert way of sharing tacit knowledge, there are many other ways of sharing the tacit knowledge. Moilanen (2010) has categorized these methods (see Table 3). She has separated them into three categories;

individual, pairs and groups. A few the most relevant methods are being discussed more specifically further in this chapter.

TABLE 3. Methods of sharing tacit knowledge (adapted from Moilanen 2010, 190).

Individual	Pairs	Teams
Reading	Informal pair work	Team work
Writing	Guiding to work	Improving the working
Getting to know other person's work	Introduction period	Learning/study groups
	Expert-novice	Project groups
Surrogacies	Mentoring	Meetings
Cycling work tasks		Coaching teams
		Professional guidance in teams

The individual aspect is quite different from the others in terms of sharing knowledge. However this refers to individual person's willingness and motivation to search and find tacit knowledge that is associated to one's work and career. Surrogacies can be good and beneficial. The surrogacy period is beneficial and successful if the work tasks are documented very specifically. This way the person learns new information, and it is easy to handle the work task. Surrogacies are often sudden cases. However the up-coming surrogacies that are known to occur can be pre-planned and face-to-face preparing can be utilized. The negative sides of surrogacies are that there is no working together or face-to-face interaction. Hence, it can be also easy to get a wrong impression on the other person's work. (Moilanen 2010, 190-191.)

Cycling work tasks can be executed in a few ways. Two persons can change their work tasks in an organization. This can be done in changing the place. For example this can be executed between same organizations work posts in different cities, or in a same city between slightly differing work posts. This requires that work tasks are quite similar, and that the employees are able to discuss about their experiences and ideas together after the exchange period. A similar way is to getting to know other person's work. This can be done also inside an organization if there is a possibility to follow employees doing same work tasks. It is possible to go to another city where the company operates, or to another

country. When changing the country it can be extremely beneficial as working methods can be more significantly different than in the same country. Obviously this is more costly, so the visits between cities in the same country are more preferred. Getting to know other persons work is based on following, asking questions, listening and learning. (Moilanen 2010, 191-192.)

It seems that in companies pair work is the most efficient for tacit knowledge sharing. This enables sharing ideas, thoughts, opinions and experiences. As a result new updated working methods are created and the tacit knowledge stays in the organization, having left the unnecessary or distracting knowledge away. Two of the most popular ways of sharing tacit knowledge via pair work are mentoring and the expert-novice model. Introduction period is one part of the pair work category in Table 3, but it can be easily executed as an expert-novice process.

The traditional concept of mentoring in work life is that an experienced colleague gives guidance, advice and support for a new employee. Many organizations have launched mentoring schemes as the results have been beneficial. This teaching method is a low-cost means to make the most out of the organization's staff, and sharing knowledge for new employees. Mentoring can be practiced in several ways, such as hiring an outsider or choosing mentors from the own organization. (Jordana 2014.)

According to Moilanen (2010), the difference between expert-novice model and mentoring is that in mentoring process the objective of learning is not so related to the company, but to the individual's own goals and professional development. Mentoring includes also more issues about working life and career in general. In working life mentoring can be easily confused with the expert-novice model even though it doesn't mean the same. (Moilanen 2010, 193.)

When the novice and expert work together they can share tacit knowledge to one another. The novice often has updated information, and the expert has knowledge that is based on experience. As this kind of pairs work together, they can generate new information and knowledge. The working method is very efficient as it brings the organization new valuable knowledge which improves the competitiveness. To begin, the management must value the sharing of knowledge. They must give time for the process, and generate an atmosphere that supports and encourages to the sharing practices. Many organizations think that the time spent on two employees working on the same task is waste of time and

money. However the alternative to this is that all the new employees go through the “school of hard knocks” meaning that they waste time on figuring out the same things that someone has already solved. This actually leads to spending even more time on the same issues and therefore also to spending more money. (Virta 2011.)

Team work is most efficient when attendants are from different age groups and have differing experiences. In teams all the members must co-operate and thus share ideas and opinions. Team work can be more time consuming than for example pair work as there are more members and therefore more opinions and more controversy. The good side of this on the other hand is that the solutions are more deeper explored and the issues have many people’s viewpoints. Therefore in team work it is a necessity to communicate, to share knowledge, and to question to get to the best results. All this co-operation includes sharing tacit knowledge. (Moilanen 2010, 194.)

Weekly meetings or team meetings are held in most of the organizations. It would be important to raise some issues, problems and experiences to the conversation. All the important topics could be discussed together, and solutions could be better found. These kinds of meetings should be separated from informative meetings. There the employees have usually no chance to express their own experiences or problems because of an off-topic nature of issue or lack of time. (Moilanen 2010, 195.)

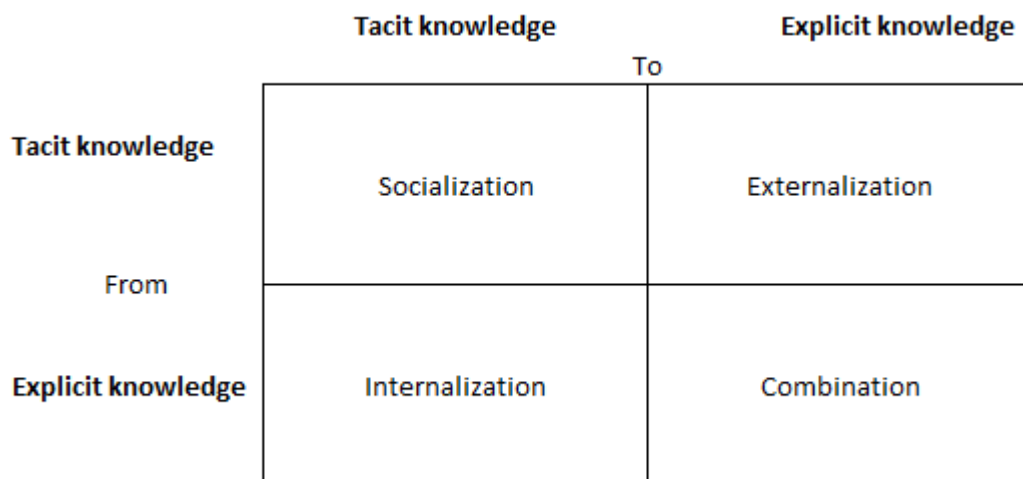
However it should be remembered that not all the activity should necessary happen in the working environment. In my opinion events established outside work, such as pre-Christmas parties, “tyky” activity and recreative events are popular and beneficial. A good example of these can be found in chapter 3.3.1 in part of *socialization* where there is an example of a Japanese company that arranged meetings on the leisure time outside work environment. The objective was to give employees to chance to relax and alongside also to share tacit knowledge.

“Tyky” activity (activity to support working ability) is very popular in Finland. This supports the working ability and health of the employees. It also improves the atmosphere at work, creates motivation and builds organizational cohesion. Employees feel that the organization cares about the employees and is willing to offer some relaxing activities alongside hard work. The most important fact for the organization is that this kind of activity significantly improves the employees’ motivation. (Työterveyslaitos 2013.)

3.3.1 SECI-model

Nonaka and Takeuchi (1995) believe that explicit and tacit knowledge complete each other, neither type of knowledge being more important than the other. Western cultures often emphasize explicit knowledge, while Japanese press more value on tacit knowledge. Nonaka and Takeuchi say that knowledge creation and expansion is a process between individuals where tacit and explicit knowledge cycle in continuous interaction. This process of explicit and tacit knowledge is called “knowledge conversion”. (Nonaka and Takeuchi 1995, 61.)

Based on the idea of knowledge conversion Nonaka and Takeuchi developed the SECI-model. The figure includes four different modes of knowledge conversion. See Graph 3 to see the model.



GRAPH 3. The SECI-model (adapted from Nonaka and Takeuchi 1995, 62).

Socialization is a process from tacit to tacit knowledge. In this process people share experiences in face-to-face interaction. This method is implemented in expert-novice working. Novice is learning from the expert not by language, but by observation, practice, imitation and repetition. In work life the method is mostly used as an introduction period for a new employee. The Japanese are known as experts of tacit knowledge. In the following examples two Japanese companies have successfully been able to learn by utilizing the socialization method. (Nonaka and Takeuchi 1995, 62-64.)

The first example explains how Honda has arranged informal meetings and happenings for the staff to enable the sharing of their tacit knowledge. These meetings are held outside the work place in cozy atmosphere where the employees can eat, drink and relax. The comfortable environment enables employees to talk about problematic work issues, and solve those together. The discussions follow only one rule; no criticism without constructive suggestions of solutions. The brainstorming setting is good for new ideas and better solutions. (Nonaka and Takeuchi 1995, 63.)

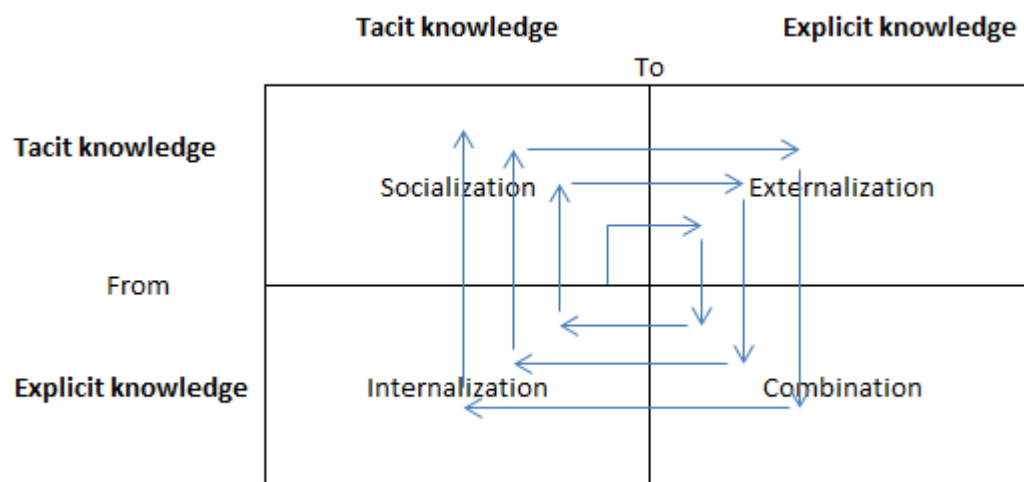
The other example concerns a company called Matsushita Electric Industrial. The company's task was to develop a new bread machine. Engineers went to a hotel's bakery to learn about needs and expectations of the bakers to get actual information for the planning process. As the group studied the baking process, one of them realized a good development suggestion for the machine. The group was able to socialize the baker's tacit knowledge, and the result was a major improvement with the machine's structure. Interaction with customers is good when trying to find a solution for their problem, and to be able to improve the quality of the service to match the customers' needs. (Nonaka and Takeuchi 1995, 63-64.)

Externalization means the conversion of tacit knowledge into explicit knowledge. It is a mode that aims at converting tacit knowledge into articulable form. Tacit knowledge is taking shapes of analogues, metaphors, hypotheses and models. To specify, tacit knowledge is transferred into a written form. In companies to share employees' tacit knowledge this is usually done by interviewing individuals to document their knowledge. On the other hand, slogans and metaphors are also a part of externalization. For example, once Honda City was being developed, the company used a metaphor: "Automobile Evolution". The company had a vision about the new car based on their experience and tacit knowledge, and they wanted to express it by creating a concept that would market the new idea. The challenge in externalization processes of converting is that expressions, emotions and actions cannot be included in a documented form. This causes the absence of some amount of information and knowledge. (Nonaka and Takeuchi 1995, 64-65.)

Combination is a process from explicit to explicit form of knowledge. The basic idea is to systemize articulable and written knowledge or information. The knowledge is in documented or articulable form, and it can be easily measured by statistics and calculations. The information is often in computer databases. Individuals can share the

knowledge for example via telephone conversations, video meetings and e-mail. In business world new concepts and improvements are created based on an existing corporate vision and slogans. The middle management is in important role for this purpose. They create new concepts, such as product innovations, that are combined and integrated with organization's existing concepts. (Nonaka and Takeuchi 1995, 67-68.)

Internalization is the process where explicit knowledge is transferred into a tacit form. When individuals internalize the experiences from socialization, externalization and combination processes, they transfer this information into their own personal tacit knowledge. Documentation helps people to internalize what they have experienced and learned. Using automobile industry as an example again, Honda City project team learned and internalized from their experiences of the project, and the company is now able to utilize this know-how in future. (Nonaka and Takeuchi 1995, 69.)



GRAPH 4. The continuous cycle of knowledge conversion (adapted from Nonaka and Takeuchi 1995, 71).

The new knowledge learned, or internalized, from socialization, externalization and combination processes needs to be shared with others to continue the endless spiral of tacit knowledge conversion. See Graph 4 where the endless cycle of knowledge conversion is demonstrated. (Nonaka and Takeuchi 1995, 69.)

3.4 Challenges in sharing tacit knowledge

Although there are models and theories of how to share tacit knowledge, the fact is that there are many difficulties in sharing it. The basic fact with tacit knowledge is that it cannot be taught, it can only be learned. This means that it is not possible to teach tacit knowledge via lessons, but person him/herself only can learn by doing and practicing. This can be referred also as the main challenge with sharing of tacit knowledge. Often, there is only one effective way to share and learn tacit knowledge; by following someone else. This idea of bringing two, or more, people to do work tasks together can be hard to execute because of the following problems and challenges. (Haldin-Herrgård 2000.)

These difficulties can be roughly related to perception, language, time, value and distance. The biggest difficulties faced are often perception and language. Tacit knowledge is hard for individuals to *perceive* in themselves, so if the knowledge is not noticed it cannot be shared. With tacit knowledge, the first step is to realize and understand the tacit knowledge that the person or the individuals in the organization have. The organization should perceive what kind of tacit knowledge the people have in the organization, and who have this knowledge. Therefore the organization can plan how to utilize this knowledge. (Haldin-Herrgård 2000.)

Language is a problem in terms of tacit knowledge being in non-verbal form. The deeper the knowledge the harder it is to explain in words. Sharing tacit knowledge efficiently requires skills in explaining and teaching. Explaining something that is obvious or routine is often hard, as well as remembering to mention each small detail. The most commonly used method for sharing tacit knowledge is the expert-novice method, where the experienced employee demonstrates the tasks for the new employee. The expert sharing the knowledge should try to illustrate and explain as the person following knew nothing about the issue. The novice should on the other hand ask questions and question some methods and issues to, in best case, to generate up-dated information and working methods. (Haldin-Herrgård 2000.)

Time can be a problematic factor as sharing tacit knowledge by absorbing is time-consuming. Organizations can lack resources of spending enough time and money to successfully share tacit knowledge. The successful process requires two people working on the same task. Business life today is extremely competitive and the fast, rapid tempo of work life minimizes the amount of time that can be consumed on different issues. The

speed in business world reflects also to the increased change rate in work places. Short employment periods mean that employees have the pressure of learning on their own shoulders. In the end this leads to superficial knowledge of many tasks, but not to the deep know-how and tacitness in their knowledge. (Haldin-Herrgård 2000.)

Distance creates problems as sharing tacit knowledge requires face-to-face interaction. It is not possible to share the tacitness if people work far from each other and do not have a possibility to meet. Nowadays information technology has created many great possibilities for sharing information by negotiating online, via video meetings etc. More and more often the employees are not working close to each other, and sharing knowledge is limited because of this. Especially big organizations operate in many cities and countries and meetings are often not possible. A great opportunity for sharing occupational knowledge, especially tacit knowledge, would be to mix work pairs and groups and arrange visits to other locations of the own organization. Also industry-related fairs are an opportunity for employees to learn new and get motivation for their work career. (Haldin-Herrgård 2000.)

In the end, the main starting point for sharing tacit knowledge is to understand its *value*. It is often associated with measurements, logic and rationality. Tacit knowledge is very personal and immeasurable which is why organizations prefer methods that are indisputable. Organizations should keep in mind that nowadays in business life “knowledge is power”, and to value and utilize also the tacit knowledge in organizations. (Haldin-Herrgård 2000.)

3.5 Advantages of sharing tacit knowledge

Tacit knowledge management is all about the individuals. Individuals have the tacit knowledge, and the only way to share this knowledge is to have communication between individuals. Shared knowledge increases all the employees’ know-how. Thus, it enables the creation of common knowledge and the best common practices. The following Table 4 lists the advantages of tacit knowledge sharing. (Virtainlahti 2009, 107.)

TABLE 4. Advantages of sharing tacit knowledge (adapted from Virtainlahti 2009, 108).

Ensuring performance, continuity and quality
Realizing the tacit knowledge and improving it
Realizing all the work tasks and improving them
Sharing good practices and work methods
Utilizing the unique knowledge
Employee satisfaction and well-being
Improved cohesion
Sharing tacit knowledge becomes a positive duty

Realizing the tacit knowledge that the individuals have benefits the whole organization. The employees can understand their own tacit knowledge better and therefore they can develop and regenerate their knowledge. When knowledge is shared several people can assess it and express their own opinions or suggestions for improvement. Up-dated knowledge and improved working methods must be again shared to the others. This prevents making the same mistakes and makes the operations more efficient. Utilizing good working methods saves time and thus also money. Quality of work remains good and the organization stays competitive. As a result the organization can constantly improve the knowledge and maintain the high know-how on all the employees. (Virtainlahti 2009, 108-109.)

Shared knowledge enables fluent surrogate arrangements and it is easier to handle situations when surrogacy is needed. Often the importance of tacit knowledge is realized in terms of retirements. However all the personnel changes generate a threat of losing tacit knowledge. Maternity leaves, job alternation leaves, sick leaves, layoffs and changing work places all are situations that must be prepared for. Sick leaves are rather common, and organizations should be prepared to have a substitute so that these situations wouldn't affect the organization's operations. There should always be more than one people who can do the work, remembering that no-one is irreplaceable. Realizing the employees' tacit knowledge the work load can be adjusted. The work tasks can be distributed more evenly to secure well-being of the employees. The motivation grows as the employees feel appreciated. Open communication leads to improved cohesion. Comfortable atmosphere

makes employees willing to help the others and share their knowledge. As a result they can get help from the others much easier. Open communication is a benefit for the whole organization and its employees. (Virtainlahti 2009, 109.)

In the end successful management and sharing of tacit knowledge lead to profitability. My viewpoint is that most of the organizations would benefit from investing in tacit knowledge management. According to the service-profit chain model, the three dimensions; employee satisfaction, customer satisfaction and high profitability are connected.



GRAPH 5. Profitability as a result of tacit knowledge management.

Graph 5 demonstrates my personal viewpoint of the tacit knowledge management's result to profitability. The management of tacit knowledge strengthens the employee dimension. When employees are motivated, trustful and respected by management, they are willing to share their tacit knowledge. Open communication and sharing of tacit knowledge leads to high know-how inside the organization, which customers respect and value. The customer satisfaction in the end leads to the profitability growth. Customers remain loyal to the organization, and new customers can be more easily obtained.

3.6 Disadvantages of sharing tacit knowledge

Although there are situations when sharing of tacit knowledge would be harmful and thus the knowledge should not be shared, it should be remembered that in general the sharing is beneficial. Quite often it is the case that sharing tacit knowledge wouldn't be harmful in

itself, but the problem is the personal barrier. Individuals easily realize that their tacit knowledge is very valuable. They might feel that keeping the tacit knowledge by themselves strengthens their professional status and value for the organization. Actually from the individual's viewpoint this is true, but obviously for the organization this is only harmful. (Virtainlahti 2009, 112.)

There are a few situations when tacit knowledge sharing could have negative impacts. Usually these issues are related to entrepreneurship, business ideas, innovations and trade secrets. Entrepreneurs have a lot of tacit knowledge as they gain experience. Professional knowledge about the branch and entrepreneurship increases. It is obvious that keeping this kind of tacit knowledge by themselves is an individual benefit that should be utilized to own purposes. The competitive advantage achieved by experience of the industry and having individuals sharing their tacit knowledge inside the organizations should definitely be maintained as a secret to outsiders. New business ideas and innovations have tacit knowledge in their background. Entrepreneurs and people who work in these innovation projects would have huge amounts of tacit knowledge to be shared, but it wouldn't obviously be wise to share to others who could utilize this knowledge against the organization. (Virtainlahti 2009, 112-113.)

The shared tacit knowledge can end up for a competitor when an employee changes a work place. The trend nowadays is that people change work places relatively often and easily. However, it should be remembered that this cannot be prevented. It is a fact in every organization that the employees have a right to change work places. Instead the companies should focus on giving the employees reasons to stay in the organization. Valuing the employees and making them motivated and happy encourages them to stay. As the threat of leaking the tacit knowledge to competitors exists, the answer definitely shouldn't be to withhold the sharing of tacit knowledge. It is a bigger benefit for the organization to share the knowledge inside the organization as it brings the competitive advantage and enables differentiating which in fact are the keys to success in today's business world. (Virtainlahti 2009, 113.)

Several organizations have working methods that have been in use non-changed for even decades. Sometimes the older employees, the "experts" are highly valued and the new younger employees are seen as beginners. This can easily lead to lack of communication between the employees between different generations. The organizations should realize

these old, no matter how good, working methods and understand that it is not a disadvantage to share these to the younger generation employees. The younger employees shouldn't be seen as a threat by the older employees. It is organization's task to ensure that none of the employees feel threatened by the colleagues. The withholding of tacit knowledge prevents the sharing of good working methods and the possibility to up-date the knowledge. (Virtainlahti 2009, 114.)

Sharing old or false tacit knowledge however is not good and it should be avoided. This can prevent the organizational development and cause the organization to get stuck in old or defective habits. Also personal attitudes and prejudices are easily shared among tacit knowledge. Employees can continue acting based on these beliefs which prevent them from consisting their own images and opinions. Sharing of false and prejudicial knowledge can be a disadvantage for the organization as it slows the development, organization's growth and the keeping in the pace of the competitors. However, it must be remembered that sharing tacit knowledge in these, and most situations is more beneficial than avoiding the sharing processes. Even though the knowledge would include some harmful aspects, the sharing enables a wide evaluation of the knowledge. As several people are criticizing and processing the knowledge they can give their suggestions for improvement. Hence, the sharing of tacit knowledge is the only way to up-date the knowledge. (Virtainlahti 2009, 112-114.)

3.7 Examples – Practices and solutions in organizations

This section provides three examples of tacit knowledge in actual organizations. The first example introduces an example from industrial maintenance. In this case the importance of sharing tacit knowledge and the power of individual know-how are demonstrated. The following two examples provide an example of how sharing and capturing the tacit knowledge is implemented.

3.7.1 An industry example

An organization operating in manufacturing industry learned the power and importance of tacit knowledge after a severe accident. One employee's task for decades had been the maintenance of equipment's blades. The "master" of the task had a substitute who replaced the master when needed. The substitute was aware of the basics of the tasks, but he did not even nearly have the high knowledge that the master had. No one paid attention to the situation because the work was always handled without any problems. (Virtainlahti 2009, 102.)

Suddenly the master got into an occupational accident. This caused a situation that the master could not return to the work life. The substitute began to take care of the maintenance of the blades, but he kept facing several major problems. These problems mainly were the master's tacit knowledge – the substitute only knew the basic tasks. He did not have the knowledge needed to handle the work, and anyone to ask for help. Soon he got a work pair and they started to solve the problems faced together. Eventually they learned to perform all the tasks well. The work pair certainly went through the "school of hard knocks". All the problems that began as the master left his work lead to slower production. (Virtainlahti 2009, 103.)

The organization had not thought that the sharing of the master's knowledge would be important. Everything had been running smoothly, and the master did have a substitute. However a radical situation changed everything and caused problems for the substitute. The organization suffered because of a slow production. The maintenance of blades was known as a vital part of the operations. Only the accident led the appreciation of the blade knowledge and its proper value. As the knowledge had gone the value of what had been lost was realized. Organizations should be aware of all the work tasks and employees in the organization. Such situations could be prevented by pro-active activities. The master had a substitute, only he should have been further trained for the work task to be able to survive from this kind of surprising situation more fluently. The more inclusive training would have prevented the endangering of the whole business operations. (Virtainlahti 2009, 103.)

3.7.2 Fiskars

Fiskars is a Finnish multinational company producing consumer products for the home, garden and outdoors. Fiskars is Finland's oldest company being founded in 1649. The company is known for high quality products, a few of their most famous brands being Arabia, Iittala and Hackman. (Fiskars 2013.)

Fiskars has realized the risk in retirement of the baby-boom generation, and started actions to maintain high level of know-how in the company. In 2013 Fiskars started a project that aims to perceive and determine the know-how of the employees who are going to retire within five years. In 2012 the company started mentoring. This means that they use the expert-novice model where new employees are hired to learn beside the experts. The process is not yet systematic, but the concept is being developed and planned. However the company has already noticed some benefits of this method; the introduction period to work is faster and working methods have got new up-dated methods and viewpoints. In addition, some employees' knowledge has been documented, but the main focus is on developing the expert-novice process. (Tamminen 2013.)

3.7.3 RAY – Raha-automaattiyhdistys

RAY is a gambling organization that has a monopoly position in the gambling industry in Finland. The organization gathers money for the social-and health organizations in Finland. RAY has especially focused on four employees who are about to retire within a few years. The company wants to ensure that good work methods and know-how remain in the organization and the new employees can begin at work more easily. RAY has mainly used documentation for gathering tacit knowledge. Helena Lehtonen has studied the sharing of tacit knowledge. She interviewed the maintenance managers of RAY and gathered crucial information for the future. The detailed documentation will be utilized when new employees start in the maintenance department. The method has helped the organization to realize that the individuals have differing working methods. The documentation and mentoring create a supporting atmosphere for the new employee. (Jäske 2013.)

4 CASE STUDY: MAINTPARTNER KOKKOLA

Maintpartner is a supplier of industrial maintenance and operation services. Maintpartner is operating in four countries; Finland, Sweden, Estonia and Poland. In Finland Maintpartner has about 1100 employees. (Maintpartner 2014.) The company operates in several cities in Finland, including Kokkola. In Kokkola Maintpartner has about 130 employees, which means that the company is a major employer in the Kokkola area. The company is located in the big industry area, where there are several other industrial companies operating also.

4.1 The importance of tacit knowledge for the company

The subject of tacit knowledge is very actual for the company. As mentioned earlier, the busy nature of the work life makes it important to maintain the knowledge within the organization. Most organizations are very profit oriented, which often means that the employees are busy with their work tasks. This makes the nature of work environment very hectic. Sometimes this leads to forgetting the basic factors that in a slower and more invisible way make the organization more profitable. Employee satisfaction and changing the focus on knowledge maintaining is an extremely important way of making the company profitable and efficient.

The trend is nowadays to change the work place quite often. The negative side of changing the work place however is that the know-how moves to the other companies with the employees. Knowing this, it is important to try to keep the knowledge inside the organization. Even better solution would obviously be to give the employees a reason to stay in the company so they wouldn't change the work place. When the employees are happy and they have a high-know how, it helps the company to be profitable. Employees are motivated and the customers satisfied. Sharing of tacit knowledge reduces the mistakes that someone has already made, which leads to efficient operations. This all increases the competitiveness against the competitors.

There is the vast generation working also for Maintpartner who are going to retire within next few years. A big amount has already retired. Most of these people have worked in the same organization for their whole career. This makes their knowledge very deep and valuable. It is rare nowadays to find people who have stayed in the same organization for their whole work life. The main reason for the long career in the same organization is the

old benefits they got in the beginning of their career. These benefits included for example the right to retire at the age of 60. This has encouraged employees to stay in the organization. An ideal way of utilizing this knowledge would be hiring a new employee to learn with the experienced one for long enough period. Especially the tacit knowledge does not transform fast, but it takes time.

4.2 Research objectives

The objective of the research was to find out the current situation in sharing of tacit knowledge in the company by interviews and questionnaires. Having an image of the current situation, the objective was to provide suggestions for the ways of sharing tacit knowledge. The idea was also to compare and reflect the answers from the interviews and questionnaires to the theory written on the topic. The basic objective was to provide the organization with suggestions and alternatives for the issue of sharing tacit knowledge. Two interviews were made to get qualitative data and two questionnaires to get qualitative data. Although separate questionnaires were made to management and personnel, the aim was not to examine the differences between their opinions, but to gather general data and to highlight some of the important differences in viewpoints.

4.3 Research methods and process

The aim was to gather both quantitative and qualitative data to get diverse information on the topic. The research methods used were questionnaires and interviews. The questionnaires were used to enable getting data from a big target group. The respondent groups, the managers and the rest of the personnel, answered to the similar questions which enabled fluent analysis process and comparison. Interviews were used to give the interviewees a possibility to explain their opinions and answers. The reasons for the answers were able to be gathered and deeper information on topics was found. (Hirsjärvi, Remes & Sajavaara 2000. 182-192.)

To get quantitative data, two questionnaires were made with the Webropol-tool (see APPENDICES 2 and 3). The questions were both open-ended and pre-defined answer alternatives to get deeper data. One questionnaire was sent to the personnel, the other for

the managers and people in higher position. This separation was made because quite often the personnel and managers have different viewpoints and opinions on company's issues. However the separation between management and personnel was not made in the empirical section, but the most important notifications were only pointed out. The basic aim was to gather general information about tacit knowledge, not to compare the different opinions of the personnel and the management. The questionnaires were sent by e-mail (see APPENDIX 1), including a www-link. In beforehand the employees were informed about the up-coming survey by e-mail in hope of their answers. The response time was one week, and a reminder was sent about the questionnaire. The questionnaire forms were sent in Finnish. Later the forms were translated into English to be attached into the thesis work as Word-documents. Off-topic answers were not included in the summary, only the answers relevant to the question were considered.

Two interviews were made to get qualitative information. One (APPENDIX 4) interview was made for two team managers, the other (APPENDIX 5) for a job coordinator and for a supervisor. The aim of the interviews was to give more open opportunity for the employees to talk about the tacit knowledge issues in the organization. Pre-determined questions were written which were then asked from the interviewees. Interviews were recorded to remember the answers, not to pay attention to the tone of the speaker or the emotions. Some notes were made during the interviews, but the answers were summarized later based on the recordings.

5 RESEARCH RESULTS

In this chapter first the analysis method will be presented. The reasons for the chosen analysis method are given and some background information is given. Next the actual analysis is made on the responses. The analysis part is separated into subtitles to make the analysis part more fluent and easier to read.

5.1 The analysis method

The research method included a relatively large amount of material; the two questionnaires and two interviews. The decision was made to summarize all the information gathered from these into one summary (see APPENDIX 6). The responses of similar questions asked from the organization's employees were added together, having still all the responses separated from all the four different research methods. All the same questions could obviously not be asked in all the interviews and the questionnaires having differing respondents. However the ones that were asked more than once were included in one set of responses keeping the response groups separated. The answers could then be analyzed easily having all the responses for a certain question. Comparisons could also be made if some differences or highlights needed to be analyzed. The questions were analyzed one by one. Some of the short and clear questions were not studied that much, but the most important questions that had most contents were more closely analyzed. The questions were divided into sub-headings, which made a fluent categorizing possible. In addition, the analyzing process was easier and the reader of the thesis would be able to follow the analysis part better having it in shorter subjects.

The amount of responses of managers' questionnaire was 7/12, which means a response rate of 58,3 %. This was expected to be higher, so the result was a bit surprising. The hope was that the response rate would be 100 % or a bit less, as the amount of managers was only twelve. The response rate raised in the very beginning a wonder about managers' commitment and care on such topic as a thesis work, having the fact that they were aware of an upcoming thesis questionnaire.

The other questionnaire was made for the rest of the personnel. The amount of responses of this questionnaire was 34/122. This means a response rate of 27,9 %. Although the rate is lower than in the managers' questionnaire, the rate is rather good. All the employees do not

use e-mail very often, but still quite many were able and eager to answer to the questionnaire. Good and reliable conclusions were possible to be made of this rate of responses.

5.2 The analysis on the responses

5.2.1 Personal about tacit knowledge

Most of the respondents were aware of the term “tacit knowledge”. The subject is not new, and especially the older employees knew about the topic. According to them the topic has been discussed in work life decades ago, but only rather shortly. All the respondents could realize at least some tacit knowledge they have. Interestingly 24,2 %, almost ¼, of the respondents thought that they can identify their own tacit knowledge well. It can be easy to think for people that they are aware of all the tacit knowledge they owe. For sure, there is some knowledge that is easier to realize. A great example from a team manager is: “Knowing how to work and handle different, individual customers”. This exactly is tacit knowledge that is learned by experience. The problems often occur when this knowledge should be explained to someone. It is challenging to remember all the small details of work tasks when teaching someone else. For this reason, working together is more efficient than explaining the tasks for documentation.

All the employees felt that they are willing to share their tacit knowledge to others. Also all were willing receive tacit knowledge from others. However, managers were able to raise some points when they wouldn't be interested to listen to others' suggestions or knowledge. “If I think I can do something well, it might be hard to listen new ways of doing.” This respondent's comment shows that there often is a personal pride on the background when listening to others. The problem can be personal, but also for example age or interpersonal aspects affect strongly. For a younger person it can be hard to listen to the older one, but also the opposite if the older employee is not willing to learn new or update his/her knowledge. Interpersonal issues harm the working in general, so the work pairs should get along well. Another viewpoint from a respondent is: “It depends on the subject. If it's relative to my work. Not motivated to learn anything useless.” This can be related to the creation of trust. When the employees are informed well, they know where to

find answers, and they know why the changes or reforms are beneficial they are more motivated and the basement for trust is created. As teaching new for the employees, the key is to tell why the reform is important. This motivates employees when they know why something is done. Also preparation is important to enable good experiences. There must always be someone who can give correct information, and answer to the questions asked. When employees are motivated they are more willing to listen new information.

Surprisingly, 70,6 % of the respondents have noticed at least some people in the organization who are not willing to share their tacit knowledge. To compare, all the respondents did think that they are willing to share their tacit knowledge to others. A few examples were presented to explain why a person wouldn't share knowledge. The basic explanation was the attitude issue. Bad experiences in the company were mentioned as one reason. The negative experiences lead to lack of motivation. People might feel that "I'm only working here", which also means the lack of motivation to care about the benefits of sharing tacit knowledge. Another example was about employees who are soon going to retire. "Old ones do not want sometimes to share their information because they think new ones should also learn by mistake because they did it too." The problem is realistic, and rather alarming as the old experts should be willing to share their tacit knowledge to younger ones. The employees must be made motivated. One solution is to utilize the expert-novice model. The expert is entrusted to share his/her knowledge, and it is not left as a voluntary task to do.

5.2.2 Current situation in the organization

According to 97,1 % of the respondents the tacit knowledge sharing would be very beneficial for the organization. A majority thought that the topic is current, having retirements as a major reason. In addition to retirements, not having to repeat the same mistakes and time and cost savings were mentioned as benefits of sharing tacit knowledge. However, by the managers a few opinions were presented that the topic is not current and it is a responsibility of highest management. It is true that the highest management must realize the need, and focus on the tacit knowledge management. Still it was surprising that not all of the managers believed that there is a need for tacit knowledge management. 57,1 % of the managers thought that the organization has not focused on the topic. Expert-novice model is being utilized to some extent, but there are no concrete actions for the

subject. Basically, the tacit knowledge management is everyone's own responsibility at the moment. An example was given about the current situation of focusing on tacit knowledge: "In theory yes, in practice no."

Most of the managers told that they have tried to improve the sharing of tacit knowledge with their subordinates. Expert-novice model, documentation, open communication and asking questions were mentioned as used methods. It is possible for a single manager to improve the sharing of tacit knowledge, but it would be extremely important to have an organization-wide program for tacit knowledge processes. The program does not have to be extensive or multidimensional, but it would be beneficial to realize the importance of tacit knowledge and take some actions to secure the subject. 94,1 % of the personnel thought that tacit knowledge is being shared to at least to some extent in the organization. The rate is high and it indicates that at least some amount of tacit knowledge is being shared.

According to managers the organization does not support the sharing of tacit knowledge. It reflects the fact that the management has not realized the importance of the issue. Time is seen as a biggest problem according to the managers. According to them there is no enough time to follow the subordinates enough as IT tasks take more and more time. The Flow project was described as a time-consuming part of the work, which means that there is no enough time to do the actual work with the subordinates. The importance of planning processes and communication during the change is highlighted in the case.

5.2.3 Advantages and organizational inducements

Great examples were able to be raised about the benefits of sharing tacit knowledge in the organization. It is good that the personnel is well aware of the benefits that sharing tacit knowledge creates. Taking actions to improve the sharing processes would be easier based on this fact that the personnel is aware of the benefits. Being aware of the possible benefits for the organization the management could easier realize the value of the topic, and begin to pay attention to the issue. The following Table 5 shows the comments given on the benefits. Highlighted comments are being mentioned by both managers and the rest of the personnel.

TABLE 5. Benefits of tacit knowledge sharing according to the whole staff.

Competitive advantage	Efficiency
Job safety	Faster learning
Customer and employee satisfaction	Fluent holidays and replacements
High level of know-how	Improved cohesion
Less mistakes = time and cost savings	Preventing useless work if answer already exists
Preventing the same mistakes	Knowing the answers to problems
	Continuous learning
	Flexibility and efficiency

The respondents have been able to give examples of the benefits very extensively. Competitive advantage could be seen as the main benefit. Competitive advantage is a benefit that is achieved when the main building blocks are handled well and the tacit knowledge sharing processes are working well in practice. The four building blocks are demonstrated more deeply in Graph 1. This process improves the employee satisfaction by building a strong basement for the processes. Customer satisfaction is created when the tacit knowledge is being share and applied (see Graph 2). As a continuous result of this process high know-how is obtained and the customers are satisfied.

The amount of mistakes will decrease as a result of efficient sharing of tacit knowledge. Most importantly, not all have to go through the “school of hard knocks”. Also the comment “Preventing useless work if answer already exists” is reflected to this. When problems are solved and mistakes done once, the information learned should always be shared to the others. Efficiency is increased impressively as the learning is utilized in future. The SECI-model explains this process well. As the employees learn from socialization, externalization and combination processes, they will internalize this knowledge personally. When this new knowledge is shared the efficiency grows, up-dated information is being created and high know-how will be obtained. One example was given as a citation “Continuous learning” which can be used as a summary of the tacit knowledge

sharing processes. In addition, the job safety will be improved due to the reduced mistakes and shared knowledge.

Learning will be faster when tacit knowledge is shared. Especially, new employees can be faster trained when the process is well planned. Expert-novice method is extremely useful when used during the introduction period for a new employee. The learning is efficient as the novice has an expert who guides during the introduction period. The process enables not only the highly preferred form of sharing tacit knowledge, but also it gives the opportunity to do work tasks alone and be able to apply the gained knowledge in practice. However, the process requires investments from the organization to the issue. The expert-novice model on an introduction period can easily be seen as a time and money consuming process. In the long run the process still is beneficial as the time and money will be more efficiently saved in future than it was spent on the introduction period. Repeating the mistakes and solving problems often are often much more costly for the organization. The faster and efficient learning will happen also when work is done in pairs. The learning, sharing and application of knowledge is extremely efficient when two people are able to discuss together.

Replacements and holidays can be easier handled when tacit knowledge is shared. It would be good if all the employees had someone who can replace them if needed. Documentation, pair work and getting to know other person's work (see Table 3) are good ways to help in the mentioned cases. Job alternation leaves can easiest be managed by utilizing the expert-novice method, mentoring and pair work. These situations require a face-to-face interaction and working together to learn the work tasks well. To continue, the cohesion will be increased as a benefit of tacit knowledge sharing. When the employees feel trustful and the communication needed to the sharing of tacit knowledge is fluent the feeling of cohesion will improve. Good atmosphere at work supports the employee satisfaction, and hence the motivation to share knowledge is higher.

The following question examined the factors that improve the sharing of tacit knowledge. The personnel experienced that the atmosphere at work is good and they can freely talk about their opinions. Good work mates were mentioned to be important part of the work. It is important that the employees feel comfortable at work and that they have good relationships with co-workers. The positive atmosphere at work improves the well-being

and satisfaction to work. Happy employees are willing to benefit the organization in every way – they are willing to share tacit knowledge if they are advised to do so.

The employees felt that the co-operation with colleagues is good. Office structure was mentioned to be good, and the closeness of co-workers was seen beneficial. The closeness of colleagues is very good as it enables efficient co-operation and quick questions from other workers. The closeness improves the cohesion as the co-operation is efficient and fluent. Closeness of work mates improves the well-being at work also as it enables communication and commerce with others preventing the feeling of loneliness. The employees answered that the old and new employees often work together. The old and new employees can work together also in a same team or in the same office. This enables asking for help whenever needed having a possibility to first try alone. The co-operation is still different from the expert-novice model. The expert-novice model enables deeper learning and continuous co-operation. The method is good for introduction periods and for purposes when an individual's work tasks are taught to another employee very specifically.

Mutual breaks are important as the employees can relax and discuss together. It is good that the whole organization has the same break times. Based on my experience sometimes the employees spend their breaks with different people in different places. It is good that they have a possibility to move, as it always creates a possibility for discussion and therefore for sharing of knowledge. The discussion topics are often off-topic, but actually 97 % of the employees said that they talk about work-related issues during breaks. Having employees who have similar work task around the same coffee table is good as they easily talk about problems and experiences. Sharing these problems and ideas generates discussion and often solutions are quickly found. This is sharing tacit knowledge at its best.

Team meetings and development discussions were mentioned as beneficial meetings for knowledge sharing purposes. Especially weekly team meetings that are not only informative offer a great chance for tacit knowledge sharing. When the employees have a possibility to share problems, experiences or thoughts, there is a whole team listening and being able to answer. The discussion leads to solutions, new knowledge and shared information. It can be said that surprisingly, positive feedback was mentioned as an improving factor for sharing tacit knowledge. Having said that it is surprising it is obviously still a positive finding in the answers. Giving positive feedback is extremely hard for especially the Finns. Having received good feedback from my own team manager

of this specific organization felt very good and encouraging. Quite often the positive feedback is somehow hard for the managers to give. However, the good feedback doesn't have to be given in face-to-face meetings as long personal feedback sessions, but it can mean small comments in everyday work life. The fact is that good feedback feels good in everyone's opinion. Inevitably the encouraging comments give new energy and a positive feeling towards the whole organization.

5.2.4 Disadvantages and organizational barriers

In general tacit knowledge sharing is only beneficial and good. However, there are issues that should be noticed about tacit knowledge. In some cases it is not good to share the knowledge at all. Business secrets are mainly the only are that should not be shared. Sometimes there can be aspects in the knowledge that are not good to be shared. Wrong information and personal opinions can be hazardous. However, sharing knowledge that may include these negative aspects is more beneficial than not sharing it. These issues can be discussed and improved when the knowledge is being shared. The respondent should not only listen to the knowledge and utilize it, but to re-evaluate it and assess the correctness and importance of the information.

Excellent points were able to be raised about the disadvantages and of sharing tacit knowledge. 22,2 % of the respondents saw no disadvantages in sharing tacit knowledge. The rate is high, but it proofs that at first glance it is hard to see any harm in sharing knowledge. However when thinking more, there are points in sharing tacit knowledge that can be problematic. Related to this topic of disadvantages about sharing tacit knowledge the managers and the "basic" workers had interesting and actual opinions. The responses were very current, actual and post-related. The managers were able to raise problems from their viewpoint as well as the basic workers raised the issues related to their post in the organization. The viewpoints of the respondents are being discussed in the following paragraphs.

Both managers and the workers saw the disadvantage in sharing old and bad working habits, or useless information. The worry in remaining old working methods is that the organization may not improve. To gain the competitive advantage the organization must reform itself constantly. If the organization gets stuck with old ways of doing, the

competitors will certainly take over. The negative aspects in sharing tacit knowledge may have personal viewpoints or prejudices that the respondent of the knowledge will continue utilizing. An example was given by a manager: “The information might be someone’s personal information, for example an opinion on some person.” If this kind of personal opinion transfers to another, it can cause useless problems or delays in work. The new person may have had a totally different opinion on the individual but the prejudices mix the situation. The managers realized another disadvantage in sharing the learnt tacit knowledge. “Sometimes the employees don’t question things, why something happened.” It is not always the best to tell the realized information right away, but to think about it first alone. Sometimes the answer can be rather simple and the solved case can then be told further.

The personnel were aware that nowadays the trend is to change work places rather often. This forms a threat of losing the shared tacit knowledge to competitors. However, the organizations can’t force anyone to stay, but other methods can be used. Motivating the employees to stay is the only possibility to keep them. An example was given about the benefits related to retirements. The company offered a possibility to retire at the age of 60. This is an example of a drastic inducement that motivates the employees to stay. Keeping the employees satisfied and happy makes them willing to stay also. As employees are satisfied to their current job they don’t have a feeling that they would need a change.

Managers saw a disadvantage in sharing tacit knowledge in the employees who are not willing to share their tacit knowledge at all. The lack of sharing knowledge is obviously a disadvantage. Interestingly, the answer to this managers’ worry was found in the workers’ comment. They said that a disadvantage in sharing tacit knowledge is that they are afraid of their work place as there is someone else who could do their work too. Managers should realize this fear, and reassure that there is no need to be afraid. The management should provide methods and resources to share tacit knowledge, and explain why the sharing is so important. If the reasons for sharing tacit knowledge are unclear, the fear occurs easily. Explaining the right reasons for why tacit knowledge sharing is being encouraged is a necessity. As in change situations and in change management, the correct answers must be given to prevent problems.

One of the managers’ disadvantages in sharing tacit knowledge was related to the comment: “the employee hasn’t got anyone for who he could share his information.” The

employees might have valuable tacit knowledge, but there is no one who to share it for. The arrangements should be planned so that in each change situations; retirements, leaves and so on there would be someone who knows the work tasks. In general the change situations should be handled always carefully. One worker's comment about disadvantages was: "Sharing knowledge that people don't understand." The importance of explaining why the change is being done is the key. Employees won't be motivated to act unless they know why they need to act in certain way. The communication needs to be constant and the managers need to be ready to give actual answers. The well planned projects ensure the useless mistakes, uncertainty and lack of knowledge.

The respondents gave examples about barriers that prevent the sharing of tacit knowledge in the organization. Thinking about tacit knowledge management, it would be good to start the process from observing these barriers. The employees' opinions refer to what are the main issues in the organization that should be improved, and what they prefer as reasons for the poor sharing of tacit knowledge. There are five main challenges in sharing tacit knowledge; perception, language, time, distance and value (Haldin-Herrgård 2000). The only efficient way to share tacit knowledge is to bring people together. As face-to-face interaction is crucial, also the co-operation and communication must be constant and fluent. However as the face-to-face communication is essential for sharing tacit knowledge, there are often reasons why this is not being implemented.

According to the respondents' comments value, perception and distance formulate the biggest barriers. The following Table 6 indicates the respondents' comments on barriers of sharing tacit knowledge in the organization. The perception box in Table 5 includes comments on individuals and their personal reasons for not sharing their knowledge. The lack of motivation indicates that the organization may not have realized the tacit knowledge that the individuals have in the organization. The identifying process needs to be done by examining and perceiving the tacit knowledge that the individuals have. The process can be done for example so that the managers interviewed all the employees about their work tasks. Knowing what kind of knowledge exists and who has it would be a good start. After perceiving the employees' knowledge they should be motivated to share knowledge by giving methods and explaining the reason why the sharing is beneficial and should be done.

TABLE 6. Barriers for sharing tacit knowledge based on the five challenges.

Perception	<ul style="list-style-type: none"> - People who don't want to share their information - attitude problem (individual reasons such no motivation, doesn't care enough, threat of own work place, not asking when there's a problem, pride) - Old employees are not encouraged to learn new things
Language	<ul style="list-style-type: none"> - No documentation systems
Time	<ul style="list-style-type: none"> - Too much hurry and rush to talk
Distance	<ul style="list-style-type: none"> - Many buildings, some work far away - Many teams and the barriers between them - Same kind of work is being done in other cities also, but there are no meetings between employees
Value	<ul style="list-style-type: none"> - Not taking new employee early enough to learn with an old employee - Too short introduction period - No regular team meetings - Lack of money, not thinking about the importance of introduction period for example - Not enough "Tyky" events to share knowledge and information

The actions to perceive the tacit knowledge in the organization are not taken if the management does not value the process. The lack of money is often seen as a barrier for not being able to share tacit knowledge. However it is not the case. Investing in tacit knowledge sharing processes gives much more in the long run than it takes. The money-aspect includes the improvement of introduction periods. Taking a new employee to learn with the other employee is good. The expert-novice model is beneficial as the work tasks are being learnt completely. The money investment may seem unnecessary as two people should be paid on the same job. However the benefits of sharing tacit knowledge are much more extensive. Satisfied employees, satisfied customers and profit growth are actual when tacit knowledge processes are successfully implemented. It can be hard to realize the benefits as the results can be seen slowly, and it is very hard to prove the tacit knowledge processes' benefits in statistics.

However, if the company doesn't have organization wide guidelines for tacit knowledge sharing, small but good improvements can be made in the middle-management level. The lack of regular team meetings and tyky events were mentioned by the respondents. The

team managers can take care of the fact that team meetings are regularly arranged. Even though there is no informative reason to establish a team meeting it would be good that there were regular meetings. There could be a time limit set and the meetings could be arranged for example every Friday over the afternoon coffee break. The whole team would be gathered in the same place, and the atmosphere could be relaxed and natural. The conditions would enable employees to discuss and share the problems, experiences or ideas they have had during the week. In addition tyky events would improve the well-being of the employees and create a huge respect towards the company for providing nice occasions as thanking for the work. As mentioned in chapter 3.3.1 the Japanese company Honda established informal events outside work for their employees. As well as the events enable relaxation from work they also enable the discussion between work mates about work related issues.

The respondents have seen distance as a rather big barrier for the tacit knowledge sharing. The company has several buildings in Kokkola which is a negative factor for tacit knowledge sharing. The members of the same team often work in different buildings which causes problems for communication. Sharing tacit knowledge is most effective in face-to-face interaction. Meeting the team managers requires often own initiative to walk to see the manager. Based on my own experience working in the same office with my mentor was extremely good. It enabled me to try to do the work tasks on my own, but also to ask help effortlessly. Later having worked in a different building it was quite hard and time-consuming to walk to see the colleagues or to ask help via telephone or e-mail. As there are several buildings and people are divided around the industry area it would be extremely important to have the weekly team meetings. The managers should be guided to arrange the weekly meetings. They should also be told why these meetings are good, how to execute them and what the purpose of the meetings is.

The organization operates in several cities in Finland, and in several countries. It was mentioned that “Same kind of work is being done in other cities also, but there are no meetings between employees.” To learn how the same work tasks are being done elsewhere or how the solutions for certain cases are being found the employees could travel to meet the employees in different cities. The employees could discuss with other employees and share tacit knowledge from one to another. Also new tacit knowledge could be created. The meetings in different cities could be rather short, but the benefit would be

increased professional know-how and increased motivation as the employees notice that the organization is willing to provide them an opportunity to learn new.

Moreover hurry and lack of documentation system were mentioned. The documentation system should be organization wide and the guidelines to implement the documentation should be given. The documentation could be included in the perception process. The team managers or the individuals themselves could document their work tasks to know what kind of knowledge the organization has. As the situation is perceived it is easier to manage the tacit knowledge. The work tasks could be even divided more evenly so that some employees wouldn't have too big work load. The constant hurry at work increases stress and concentration on work tasks. The work should not be only continuous rush but also pleasant. The lack of time will not offer a possibility to share tacit knowledge as there simply is no time to communicate enough. Hiring new employees is one way to maintain the well-being of the employees. This would enable them work in a decent pace and share their tacit knowledge easier.

5.2.5 Practices of sharing tacit knowledge

In this thesis the importance of retirements and tacit knowledge sharing during these processes are highlighted. As well as retirements, all the change situations are crucial for tacit knowledge sharing. Holidays, sick leaves, job alternation leaves, introduction period for new employee and retirements are all part of everyday life in companies. In addition to change situations, tacit knowledge is being shared in everyday working life. This analysis chapter focuses on the questions concerning practices of tacit knowledge sharing in the organization.

Majority, 58,8 % of the respondents thought that the introduction period is good and long enough. The structure of the introduction period was experienced to be good. The new employee must rather quick start to do tasks individually without having another employee helping all the time, but this was seen as a positive method. Giving responsibility to the new employee enhances his/her learning process. The experience by one respondent was that it is hard to learn and remember everything so quickly. Learning process takes a lot of time and it can't usually be squeezed into a short package. As the organization has realized

the employees need to have responsibility, and a possibility to ask when needed. Learning by doing is necessary to internalize the tasks.

The most common way to work is in pairs. The respondents said that especially the maintenance workers do most of the work in pairs. As the pair work method is commonly used it was also referred as an excellent and efficient way of sharing tacit knowledge. Pair work enables discussion and having such intense interaction the learning processes are very efficient. A suggestion for pair work method was given by a respondent that the work pairs should be mixed every now and then. As tacit knowledge is being shared between the work pair, the knowledge must also be shared to rest of the employees. Having two people being aware of something new, such malfunction or good way to do a certain work task is useless if the others have to learn this again by themselves. In addition to pair work, coffee breaks were also mentioned as the important occasions to share tacit knowledge. As such a huge number of employees work in pairs, the weekly team meetings discussed earlier would be essential. Bringing the whole team together regularly provides a great opportunity for tacit knowledge sharing, reassessment and creation of new knowledge.

Replacements were seen to work in fluctuating success. 67,7 % of the respondents thought that sometimes the replacements work well, sometimes they don't. Short replacements that could be prepared for seem to work well. However sudden cases and longer replacements are more problematic. A few managers had learned that it is beneficial to write a list every week about what has been done and what needs to be done next. However, hectic work life and busy schedule mean that there is not always time to write a list, or that the list is a few days old. Having always an up-dated list would require to up-date the list every day. As the days are full of action the list will be old after a couple of days. It was also specified that in cases of sickness for example there is usually no time to write a list at all and there is always something that you forget to write down. Also a comment was given that: "Only one person often is aware about some details; such individual agreements with some customer." It can be extremely harmful for the organization to have only one person who has the certain knowledge. As learnt from the example in chapter 3.7.1 there should always be someone who is aware of the information. No employee should be irreplaceable. Sudden occasions can and should be prepared for.

The following question presented four situations that are crucial for tacit knowledge sharing. The situations are:

1. Retirement – new employee
2. Job alternation leave – employee replacing
3. Changing the job description/ leaving the company
4. During the work career/ in everyday working

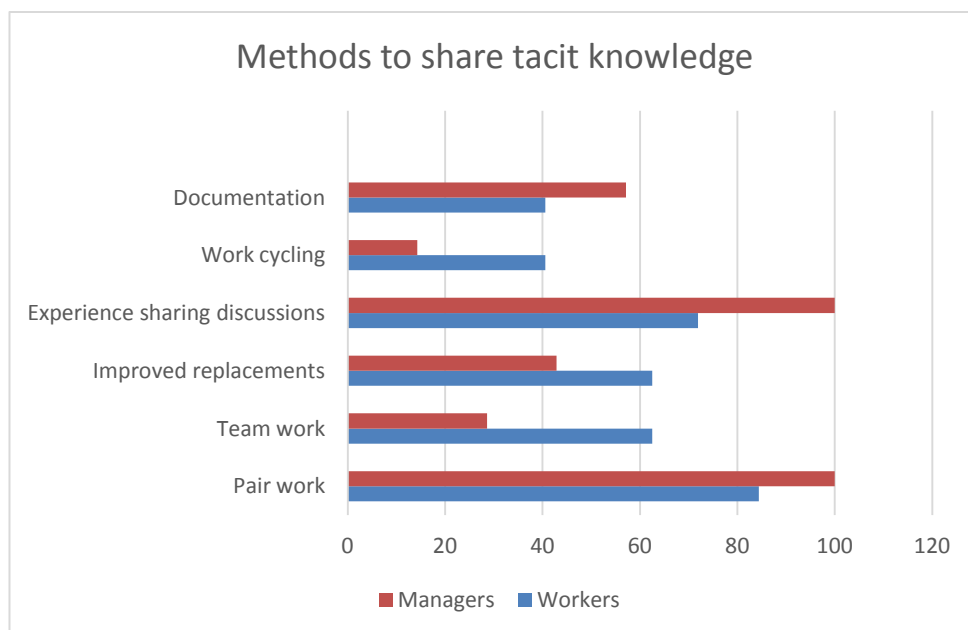
To summarize the responses, change situations were seen the most problematic for tacit knowledge sharing. The first three points are all change situations, and they were seen as the most challenging. Sharing tacit knowledge in everyday work life was experienced to work best. All of these change situations include the threat that the employees leave with all the valuable tacit knowledge with them. It would be essential to manage these situations and be able to share the tacit knowledge to prevent unnecessary troubles. The situations go fluently, time and money is being saved and the tacit knowledge is remained in the organization to achieve competitive advantage.

According to my experience the organization has not focused on improving the tacit knowledge sharing processes. One point that I found was that the company provides a possibility to make an initiative. The employees can make a suggestion of improvement concerning any activity or working methods in the company. If the committee accepts the motion the employee gets a reward. This however in my opinion is quite bureaucratic. A simple improvement suggestion should be shared to others orally. The process seems rather time-consuming and costly. As noticed in the theory, it is not possible to share good working methods or improvements, hence tacit knowledge via written form. The improvements and new tacit knowledge is being created every day which means that the face-to-face interaction is needed to explain this knowledge. The initiative activity refers to the SECI-model's externalization. Big reforms and notices can actually be shared via intranet's initiatives. However during the time I have worked in the company I never had heard about this kind of initiative program, I found it accidentally as browsing the intranet. It would be important to pay attention also to everyday tacit knowledge sharing processes to remain the high know-how in the organization.

5.2.6 Methods to share tacit knowledge

Learning methods at work affect to the tacit knowledge sharing methods. Good and efficient learning methods improve the tacit knowledge sharing. The respondents were asked what in their opinion the best way to learn at work is. The respondents have understood that it includes individual factors to choose what the best way to learn at work is. Most of the respondents thought that the best results occur when there is at first someone who shows the work tasks and there is time to follow the expert. Then the responsibility is needed after a while to be able to learn by doing and try the tasks alone. There should however always be someone whom to ask for help. Good learning methods enhance the sharing of tacit knowledge and the internalizing processes. Learning the work tasks and the tacit knowledge included to those improve the professional know-how and prevents the knowledge from staying only for one person.

The respondents were also provided with six methods to improve the tacit knowledge sharing. The methods were pair work, team work, improved replacements, experience sharing discussions, work cycling and documentation. They were asked to cross as many methods as they would be ready to try. The same questions were asked from both the managers and the basic workers. In Graph 6 it can be noticed that the results were rather differing.



GRAPH 6. Methods to share tacit knowledge.

Pair work was preferred by the workers as the most interesting and best way to share tacit knowledge. The managers agreed that the pair work is good, supporting also the experience sharing discussions. The pair work is already widely utilized in the organization. As the respond rates were the highest it seems that both the workers and the managers are satisfied with this method of working and sharing tacit knowledge. 62,5 % of the workers were ready to try team work, but the managers were not as excited. In an organization where the job descriptions vary a lot it would be quite hard to utilize team work. Team work is most suitable for projects where many opinions and the contribution is needed from several people.

The workers were more willing to improve replacement practices than the managers. Improving the replacements require planning the processes in beforehand to prevent the problems in actual situations. Replacements are part of everyday life in the organization. The work tasks should be taught to another employee to avoid a disaster. In the worst case the operations get very slow and time-consuming to the substitute who has to replace without a warning. When the tacit knowledge is shared it always provides a possibility to improve the working methods and therefore to create new knowledge. As there can be short-term and long-term replacements the both types should be managed. Maternity leaves and job alternation leaves for example are known to happen beforehand, but sick leaves are sudden cases. Both still can be pre-planned and the actions can be pre-determined to be able to act as fluently as possible.

The managers preferred the experience sharing discussions with 100 % rate. The experience sharing discussions can be executed in several ways. Regular team meetings are one way to provide the employees a possibility to share their experiences. Documentation can also be related to this as the work tasks and knowledge are being explained to be written down. However in the questionnaires and interviews the documentation was expressed as a separate method for tacit knowledge sharing. The method was not very popular by the workers, but the managers did see this as a usable method to share tacit knowledge. The negative point with the documentation is that there is a lot of tacit knowledge that will be left out from the documentation. Tacit knowledge is such a hard issue to realize and explain that usually only a small part can be written down. Documentation is not the best way to share tacit knowledge, but the face-to-face methods should be utilized more.

The development discussions are popular in the companies. The experiences and suggestions for improvement can be shared with the manager, but the occasions are quite bureaucratic. The knowledge is being told to the manager and perhaps his/her job is to tell this information further. The efficiency of sharing experiences and new information is high when the knowledge is shared to for example the whole team. A large amount of people is able to hear the experiences at the same time, and it can be also further discussed. In addition the tyky events and free-time activity provide a cozy situation for experience sharing discussions.

Work cycling was the least preferred way to utilize in tacit knowledge sharing. Especially as interviewing two team managers the interest to work cycling did not exist. The reasons were given that it is not always possible to achieve a successful work cycling process. Not all the employees are good in each task, which is why the cycling work tasks would not be seen that beneficial. However as many employees work in pairs the mixing of the pairs was preferred important. The pairs who do same work should be mixed sometimes to share any improvements to the whole organization.

Finally the interviewees were asked to tell what would be the best way to share the tacit knowledge of the employees who are going to retire soon. The opinions of all these four interviewees were similar. A new employee should be hired well in beforehand to learn with the older one. Hence, all the answers reflected the expert-novice model. It was also specified that the two people should get along well to make sure that the co-operation is pleasant and efficient. Both the expert and the novice must be motivated to co-operate. Both must be ready to share opinions as new knowledge can be created among the discussions. The novice and the expert should be ready to listen to one another and learn new. As both are motivated and there are no personal barriers towards the process the co-operation will be useful. When the guiding and resources are given and the reason for the process is explained the frame is good for successful process.

5.2.7 Respondents' suggestions

In the end the respondents were provided with a possibility to give any suggestions for improvement of tacit knowledge sharing. Also an opportunity to give any tacit knowledge related comments was given. The most common suggestion was that hiring a new

employee to learn early enough with an experienced one would be important. It indeed is an efficient method to improve the tacit knowledge transfer. The respondents suggested that it would be good if the people who do same kind of work tasks could be close to one another. Co-operation and communication would be easier and faster. However as this is not always possible to see the colleagues constantly, the regular team meetings were seen as an important occasion. Weekly meetings would enable frequent sharing of information and experiences. Time was seen as a problematic factor. It was mentioned that “Everything is so work-oriented.” Constant rush easily causes stress which is not good in a long run for a working career. To prevent burn outs it would be important to hire enough staff to evenly divide the work load. The feeling of work-oriented organization is normal nowadays. The companies are strongly work- and profit-oriented. To “soften” the work-oriented image it is crucial to focus on the employee satisfaction. Listening the employees and motivating them creates a feeling of caring and happiness.

In terms of motivating the personnel, the Flow project was often mentioned in the interviews and in the questionnaires. The frustration was raised due to lack of information and not understanding the need for the change. It is a top priority to manage a change successfully. Good planning, open communication and actual information are extremely important. The managers must be able to answer the employees’ questions constantly. The importance and need for the change must be explained in the beginning to have all the employees on board supporting the change. The lack of motivation leads to decreased trust and to the fact that the employees don’t care enough about their work. They are not willing to help or work to support the organization when they feel dissatisfied.

The managers thought that a process should be developed to manage for example retirements and replacements. An organization-wide guidelines would be beneficial and easy to utilize in each country and city. Also the managers realized the importance of regular negotiations. Each manager can apply the weekly team meetings with their subordinates. Having all doing the same would increase the sharing of tacit knowledge even more, which is why the recognition by the highest management would be crucial.

The organization’s encouragement was wished by many of the respondents. More tyky-events were hoped to have an opportunity for pleasant activities with colleagues. Organizing these events increases the feeling that the organization cares about the employees and is willing to offer nice activity to improve well-being and employee

satisfaction. The respondents thought that there is nothing that keeps the employees in a certain company. It is easy to change a work place, and dissatisfaction towards the organization easily leads to this. The retirement benefits of old Kemira employees were mentioned as an example. Such inducement attracts the employees to stay. Therefore also the high professional know-how remain in the organization. Again, motivating the employees and keeping them satisfied makes the people stay in the organization more likely. Retaining the tacit knowledge is a huge benefit as the know-how can be utilized inside the organization to be better than the competitors.

During an interview the importance of realizing the fact that changing work place is popular nowadays was highlighted. Changing work place is an actual trend, and the employees transfer the valuable professional know-how and tacit knowledge to the competitors. Realizing the trend of changing work places reminds about the value of tacit knowledge. If an employee decides to quit there should always be a plan how to operate. Another employee should have learned his/her work specifically. At latest in this point someone should start learning with him/her or the gathering of tacit knowledge should be executed. It was mentioned that in this organization too there is a job that only few people can do. Hypothetically, if one could not work due to sudden illness and the other decided to quit, what would happen? It was mentioned that the work tasks are demanding and these employees are few people who can do the tasks in Finland. The replacements should be perhaps searched from abroad. Being aware of the work tasks and know-how in the organization helps to plan and prepare for sudden cases.

The interest towards visiting other cities where Maintpartner operates was noticed. Learning new and seeing how the same work is done elsewhere was seen as an interesting subject. The visits could improve the motivation, give a positive change for the everyday work and help the sharing of tacit knowledge. In addition the team managers thought that visiting the fairs are usually beneficial. New innovations are presented and new information is learned each time. These opportunities to increase the professional know-how were mentioned to be interesting. The managers thought that education events are good and improve the sharing of tacit knowledge. However these education courses are very common and often include issues that are seen obvious. Thus, tacit knowledge cannot be shared by lecturing but via discussions and communication.

6 CONCLUSION AND RECOMMENDATIONS

In this thesis the current situation of tacit knowledge sharing was perceived. The questionnaires and interviews were conducted to gather the personnel's opinions and viewpoints on the topic and to examine their responses. In the beginning the basics on knowledge management were explained as a background for realizing the actual topic of tacit knowledge. Basic information on tacit knowledge was introduced at first. In general the main aspects to succeed in tacit knowledge sharing were given. The importance and of tacit knowledge was explained and the reasons for it being a current topic for the organizations were given. Some chosen methods for this thesis to share tacit knowledge were introduced. Later the biggest challenges of sharing tacit knowledge were identified and the advantages and disadvantages were considered. In the empirical section, first a brief introduction of the case company was given and the importance of the topic for the company was explained. Further the explanations of the chosen research and analysis methods were justified. The analysis on respondents' answers reflected the theory section to provide explanations on their responses based on actual theories existing.

TABLE 7. Suggestions for tacit knowledge management.

Realizing the tacit knowledge that exists in the organization
Realizing the value of the topic by the highest management
Utilization of the expert-novice model
Regular, weekly, team meetings
Pre-planning of the holidays and sudden absences etc.
Preparing the retirement processes well in time
Motivating the employees; eg. tyky events and fluent communication

The main conclusion was as supposed that the organization would definitely benefit of focusing on tacit knowledge sharing processes. Table 7 summarizes the suggested actions for improving the tacit knowledge sharing processes. The organization has not currently focused on the topic, and any organization-wide guidelines do not exist. The whole personnel seems to realize the importance of the topic, and the benefits that would result of tacit knowledge sharing. There are many about-to- retire employees who have worked in

the same organization for their whole life. In addition to them, also the rest of the employees have a huge amount of tacit knowledge and professional know-how. The experienced employees know their work tasks well and the knowledge they have on the organization and its operations is massive. Sharing this knowledge to new and younger employees would improve the efficiency of the operations. Sharing of knowledge leads to discussion and considering of the information. New knowledge can be thus created as improved working methods or up-dated information. Currently the change situations such retirements, changing work places, job alternation leaves and sick leaves lead to the fact that a huge amount of tacit knowledge is lost in these transitions. These situations should be pre-planned and prepared for.

To succeed in tacit knowledge management it would be important for the highest management to realize the need and importance. Organization-wide guidelines would provide all the personnel with equal tools, methods and resources. Time and costs are often seen as issues that prevent to take actions towards tacit knowledge management. However as the importance, current nature and benefits of tacit knowledge sharing and management are realized, it can be understood that in a long run the investments pay back. The exact time and cost aspects spent to the processes are being returned in many times later. Time and cost savings are benefits that occur from successful tacit knowledge sharing processes.

An important method to share tacit knowledge are the team meetings. It would be beneficial if the meetings were regular and weekly organized. The long distances and several buildings mean that the employees do not meet each other often. Based on my experiences it can sometimes take weeks that the employees do not meet each other or the team managers. Weekly meetings would enable relaxed discussion and sharing of experiences and problems faced during the previous week. In addition the communication should be constant and easier. The meetings would enable weekly discussions and meetings, but the everyday communication must also be constant. Catching up with a team manager weekly would be good to have a feeling that the organization cares about an individual employee.

Motivating employees is important to succeed in tacit knowledge sharing and making them to stay in the organization. Therefore they are willing to share their knowledge and the knowledge will be remained inside the organization. Motivating the employees require that they are being explained why their tacit knowledge should be shared. Understanding the

benefits for the organization and the individual benefits such as increasing the professional know-how make the employees more willing to share the knowledge. This prevents them from being afraid of their work places or thinking that they are trying to be supplanted. Open communication and making the employees feel trustful make them motivated. Tyky-events, compliments and the feeling of being heard and listened are ways to improve the employee satisfaction. Visiting the organization's other offices in different cities would support the feeling that the company wants the employees to develop and increase their professional knowledge. The visits would help to see the work methods elsewhere and the sharing of tacit knowledge would be improved. The discussion between the employees helps the creation of new up-dated knowledge. If a good method to do a work task exists, the others do not have to learn it by doing and trying again but they can save time by learning the methods from others. Tyky-events are often appreciated and the employees feel that the organization respects their work as such activities are being organized.

Realizing the tacit knowledge that the employees have would be crucial. The retirements, leaves and illnesses cause problems in managing the work tasks as the employee who is the only one having the tacit knowledge is not working. The expert-novice model is utilized to some extent in the organization. It would be good to make it a habit that is used on the introduction periods and retirements. The expert-novice model enables a thorough training process. Having responsibility, asking for help if needed and close co-operation combine a good introduction period for a new employee. In addition the expert-novice model would be good to utilize to ensure that no one was irreplaceable. As an employee has done his/her work tasks for decades alone, they have a huge amount of tacit knowledge that is a severe loss if it is lost in for example in retirement or due to a sudden accident. It is crucial to realize the tacit knowledge that the experts in the organization have. Many are retiring soon, and it is beneficial to utilize this knowledge by teaching it to younger employees.

Change situations as a subject are not a part of the main topic tacit knowledge sharing and management. However, managing change leads to employee satisfaction. Satisfied employees are motivated to work towards the organization's wishes and goals. Based on the responses the change situations could be more carefully planned and managed. A lot of frustration was noticed among the responses because of the change processes. Planning the change usually takes long time, but a proper planning and testing pays off in the actual change process. Including the employees in the process; listening to their opinions and open communication makes them feel noticed and heard. Being able to answer the

employees' questions and explaining the reason for the change make them feel informed and trustful.

Managing tacit knowledge sharing processes is not easy. However the processes do not need to be complicated, but utilizing even some methods can make a positive change. Realizing the importance of tacit knowledge is the first step to start the processes. It is a good starting point that according to this research, the whole personnel realizes the importance of the topic. Indeed tacit knowledge, or the professional know-how, is a huge benefit for the organization when it can be shared and managed. Remaining the tacit knowledge inside own organization brings competitive advantage that is needed to survive in today's business life. Happy employees mean happy customers and profit growth. Even being able to differ slightly from the competitors is successful. Taking care of the tacit knowledge can be a solution.

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Hi!

I'm studying in Centria University of Applied Sciences in Kokkola. I also work for Maintpartner in invoicing and shipment office. Currently I'm writing my thesis work, and for this reason I send you this questionnaire. The topic of my thesis is tacit knowledge, and sharing tacit knowledge. I would like to ask the viewpoints and opinions of the personnel on the topic, because you have the practical knowledge about sharing of tacit knowledge in the organization.

I'm hoping to receive your responses on Monday 14 April 2014 at the latest. The responses will be analyzed anonymously, and they will not be used to any other use other than my thesis. Thank you for your responses already in beforehand!

Link for the questionnaire:

<https://www.webpolsurveys.com/S/0C650487B2CD391D.par>

Tacit knowledge

Tacit knowledge is knowledge learned by experience. Tacit knowledge is often hard to codify or explain in words. Technical, explicit, knowledge is easy to write down. Experience based knowledge however is often so routine and automatized that it is hard to itemize.

For example some employee might have tacit knowledge on a malfunction of a machine which he/she has learned by experience. Usually a new or some other employee is not aware of this problem, which means that it's good to share this tacit knowledge also to others. Then others' don't have to "learn by doing", which is always a waste of time. Tacit knowledge can also be a working method that a person has noticed to be useful and efficient.

Kind regards,

Milla Harmaala

Questionnaire

Personnel

Tacit knowledge is knowledge gained by experience. It's very personal and hard to document or concretize. Technical, explicit knowledge is easy to write down, whereas experience-based knowledge is so clear and routine that it is hard to specify. Tacit knowledge can also mean a good way to perform a work task.

For example an employee might have information on functions and maintenance of some machine. He/she has learned the information, such malfunction, by experience. Other employees can't usually be aware of such problem, therefore it's good to share the information also for the others. Hereby others don't have to learn this malfunction by experiencing the problem themselves.

Tacit knowledge and its meaning

1. Did you know about the term "tacit knowledge" before?
Yes
No
2. Could you specify or explain your own tacit knowledge?
Yes, very well
To some extent
No
3. Do you think that sharing tacit knowledge is important for the organization?
Yes
No
4. Do you think that tacit knowledge is being shared in the organization?
Yes
To some extent
No
5. Are you willing to share your personal tacit knowledge?
Yes
No
6. Are you willing to receive tacit knowledge from others?
(Perhaps changing own habits, learning new, listening others' advising)
Yes
No

Benefits and threats of sharing tacit knowledge

7. What are the benefits in sharing of tacit knowledge in the organization?
Open question
8. What harm or threats sharing of tacit knowledge can cause to the organization?
Open question
9. What kind of factors are there in the organization that improve the sharing of tacit knowledge?
(Office structure, positive atmosphere, possibility to meet and talk with other employees etc.)
10. Are there any factors in the organization that disturb the sharing of tacit knowledge?
Open question

Practices of sharing and learning tacit knowledge

11. Have you noticed any people in the organization who are not willing to share any information?
Yes, many
Some
No
12. Do employees talk about work issues during breaks?
(Eg. talking about challenges/problems and giving advice)
Yes
Sometimes
No
13. How much do you co-operate with other employees?
All the time
Irregularly
Not much
14. Do you think that a new employee gets a good enough introduction in the organization?
(Eg. sharing tacit knowledge, learning the practices, introduction time etc.)
Yes
No
15. What do you think is the best way to learn at work?
(Eg. theory-based, “school of hard knocks”, alone, together, along experience etc.)
Open question

16. Do you think that replacements run smoothly in the organization?

Yes

It depends

No

17. Does someone else know how to do your job?

(Eg. replacement or illness)

Yes

No

18. Which of the following methods of sharing tacit knowledge would you be willing to practice?

You may choose many options.

Pair work

Team work

Replacements

Conversations of sharing experiences

Work circulation

Storytelling/ explaining the work task for documentation

19. What other improvement suggestions would you like to give for sharing tacit knowledge?

Open question

Questionnaire

Managers

Tacit knowledge is knowledge gained by experience. It's very personal and hard to document or concretize. Technical, explicit knowledge is easy to write down, whereas experience-based knowledge is so clear and routine that it is hard to specify. Tacit knowledge can also mean a good way to perform a work task.

For example an employee might have information on functions and maintenance of some machine. He/she has learned the information, such malfunction, by experience. Other employees can't usually be aware of such problem, therefore it's good to share the information also for the others. Hereby others don't have to learn this malfunction by experiencing the problem themselves.

1. Did you know about the term "tacit knowledge" before?
Yes
No
2. Has the organization focused on sharing tacit knowledge at the moment? If yes, how?
Open question
3. Do you think that sharing tacit knowledge is important for the organization?
Choose one, specify your answer.
Yes
No
4. Do you think that the topic is current in the organization?
Choose one, specify your answer.
Yes
No
5. Have you tried to improve the sharing of tacit knowledge within your team/subordinates?
Choose one, specify your answer.
Yes
No

How well do you think that tacit knowledge is being shared in the following situations? (Questions 6-9)

Very well Poorly

6. Retirement — new employee
7. Job alternation leave — employee replacing
8. Changing the job description/ leaving the company?
9. During the work career/ in everyday working?

10. What benefits does sharing tacit knowledge have to the organization?
Open question

11. What possible harm/risks/threats does sharing tacit knowledge have to the organization?
(Eg. company development/stuck in the old habits)
Open question

12. Which of the following methods of sharing tacit knowledge would you be willing to utilize with your team/subordinates?
You may choose many options.

Pair work
Team work
Replacements
Conversations of sharing experiences
Work circulation
Storytelling/ explaining the work task for documentation

13. What other improvement suggestions would you like to give for sharing tacit knowledge?
Open question

Interview 1

Two team managers

Starting questions:

How long have you worked in the company?

Job description?

Definition

1. Did you know about the term "tacit knowledge" beforehand?
2. Do you think that the topic is current in the organization?
3. Do you think that sharing tacit knowledge is important for the organization? Why? How does it benefit from it?
4. Are there any harm/risks/threats for the organization in sharing of tacit knowledge?
5. Could you specify or explain your own tacit knowledge? Examples?

Sharing tacit knowledge

6. Have you tried to improve the sharing of tacit knowledge within your team/subordinates? How?
7. Which of the following methods of sharing tacit knowledge would you be willing to utilize with your team/subordinates?
You may choose many options.

Pair work

Team work

Replacements

Conversations of sharing experiences

Work circulation

Storytelling/ explaining the work task for documentation

8. How is tacit knowledge shared within the organization in general? (Eg. coffee break conversations, work pairs, work teams etc.)
9. Are you willing to share your tacit knowledge?
10. Are you willing to listen and learn new information/ improvement suggestions?

Challenges/threats

11. What challenges are there for sharing of tacit knowledge? (Time, money, methods etc.)
12. Are there some harms/threats in sharing of tacit knowledge? Reasons why a person wouldn't share his/her knowledge?

Final questions

13. Sharing tacit knowledge is very helpful in situations of replacements. When instructions of work task are only written on the paper, there always will be problematic situations. This often is tacit knowledge that is so routine and obvious for the full-time employee that he/she has not even noticed to mention about these issues.

In your opinion, do replacements work smoothly in the organization?

14. Have you noticed employees in the organization who are not willing to share any knowledge/information they have?
15. Does the company support sharing tacit knowledge? (Eg. atmosphere, time, methods)
16. There are many people going to retire soon from the company. In your opinion, what could be the best way to share their tacit knowledge?
17. What other improvement suggestions would you like to give for sharing tacit knowledge?

Interview 2

One job coordinator

One supervisor

Starting questions:

How long have you worked in the company?

Job description?

Definition

1. Did you know about the term "tacit knowledge" beforehand?
2. Do you think that sharing tacit knowledge is important and useful? Why?
3. Could you specify or explain your own tacit knowledge? Examples?
4. Do you think that the introduction period is long enough? Any suggestions for improvement?

Sharing tacit knowledge

5. How is tacit knowledge shared within the organization in general? (Eg. coffee break conversations, work pairs, work teams etc.)
6. Are you willing to share your tacit knowledge?
7. Are you willing to listen and learn new information/ improvement suggestions?

Challenges/threats

8. What challenges or threats have you experienced during the introduction period?
9. Are there any harm/risks in sharing tacit knowledge?
10. Have you noticed employees in the organization who are not willing to share any knowledge/information they have?

Final questions

11. Sharing tacit knowledge is very helpful in situations of replacements. When instructions of work task are only written on the paper, there always will be problematic situations. This often is tacit knowledge that is so routine and obvious for the full-time employee that he/she has not even noticed to mention about these issues. In your opinion, do replacements work smoothly in the organization?
12. Does the company support sharing tacit knowledge? (Eg. atmosphere, time, methods)
13. What do you think is the best way to learn at work? (Eg. theory-based, “school of hard knocks”, alone, together, along experience etc.)
14. There are many people going to retire soon from the company. In your opinion, what could be the best way to share their tacit knowledge?
15. What other improvement suggestions would you like to give for sharing tacit knowledge?

Summary of the questions included in the analysis

Personal aspects of tacit knowledge

1. Did you know about the term “tacit knowledge” before?
2. Could you specify your own tacit knowledge?
3. Are you willing to share your own tacit knowledge?
4. Are you willing to receive tacit knowledge from others?
5. Have you noticed any people in the organization who are not willing to share their information?
6. What kind of reasons could a person have if he/she is reluctant to share any information?

Importance of tacit knowledge

7. Do you think that sharing tacit knowledge is important for the organization?
8. Do you think that the topic is current in the organization?

Current situation in the organization

9. Has the organization focused on sharing tacit knowledge at the moment? If yes, how?
10. Have you tried to improve the sharing of tacit knowledge with your team/subordinates?
11. Do you think that tacit knowledge is being shared in the organization?
12. Does the company support the sharing of tacit knowledge?

Advantages and organizational inducements

13. What are the benefits of sharing tacit knowledge in the organization?
14. What kind of factors are there that improve the sharing of tacit knowledge in the organization?

Disadvantages and organizational barriers

15. What harm or threats sharing of tacit knowledge can cause to the organization?
16. Are there any factors in the organization that disturb the sharing of tacit knowledge?

Practices of sharing tacit knowledge

17. Do you think that a new employee gets a good enough introduction in the organization?
18. What challenges or threats have you experienced during the introduction period?
19. How is tacit knowledge shared within the organization in general? (Eg. coffee break conversations, work pairs, work teams etc.)
20. Do employees talk about work issues during breaks?
21. How much do you co-operate with other employees?
22. Do you think that replacements run smoothly in the organization?
23. How well do you think that tacit knowledge is being shared in the following situations?

Very well Poorly

Retirement — new employee

Job alternation leave — employee replacing

Changing the job description/ leaving the company?

During the work career/ in everyday working?

Methods to share tacit knowledge

24. What do you think is the best way to learn at work?
(Eg. theory-based, “school of hard knocks”, alone, together, along experience etc.)

25. Which of the following methods of sharing tacit knowledge would you be willing to utilize?

You may choose many options.

Pair work

Team work

Replacements

Conversations of sharing experiences

Work circulation

Storytelling/ explaining the work task for documentation

26. There are many people going to retire soon from the company. In your opinion, what could be the best way to share their tacit knowledge?

27. What other improvement suggestions would you like to give for sharing tacit knowledge?