

# IMPROVING WORKFLOW THROUGH MODERN SOCIAL TOOLS

Anna-Katariina Hakkarainen  
Riikka-Maria Hölttä

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Abstract <p>The objective of this thesis was to explore whether or not modern social software can be applied to working life in order to improve workflow management in different fields of businesses. The thesis was assigned by Netwell Ltd. The research is concentrating on market research serving also the product development of their newest product. The empirical study explored the needs for improving workflow and communication in corporations in various industries and how social software tools can be used in satisfying these needs.</p> <p>The research was conducted using qualitative research method, semi-structured interview with open-ended questions. The companies were chosen for the interviews according to Netwell Ltd.'s interests and based on the presumptions on what might be the target market of the modern social software.</p> <p>The results show that modern social software could enhance different areas of workflow. The general attitude towards these kinds of solutions, according to the research, was very positive and open. However, the modern social softwares aren't suitable for all industries or companies in enhancing workflow due to the nature of their functions and processes.</p> <p>The results were observed in the light of the theories presented in this thesis. Those theories were management, knowledge management, workflow management, management and communication and social tools in working life.</p> <p>The research should be used as a suggestive base for future studies on this subject. The study is not wide enough for the results to be generalized but it still gives an overall picture about the current situation in Finland.</p>		
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Tiivistelmä  <p>Tämän opinnäytetyön tarkoitus oli tutkia voiko modernia sosiaalista järjestelmää käyttää työnkulun hallinnan parantamiseen työelämässä eri aloilla. Opinnäytetyön toimeksiantaja oli Netwell Oy. Tutkimus keskittyy heidän uusimman tuotteen markkinatutkimukseen, mutta palvelee myös tuotekehityksen tarpeita. Tämä empiirinen tutkimus tarkasteli työnkulun ja kommunikaation kehittämistarpeita eri aloilla ja sitä, miten sosiaalisia työkaluja voitaisiin hyödyntää näihin tarkoituksiin.</p> <p>Tutkimus toteutettiin kvalitatiivisesti käyttäen osittain strukturoitua haastattelua, jossa oli avoimia kysymyksiä. Haastateltavat yritykset valittiin Netwell Oy:n intressien mukaan, mutta valintaan vaikutti myös ennako-oletukset siitä, mitkä ovat modernin sosiaalisen ohjelmiston kohdemarkkinat.</p> <p>Tutkimuksen tulokset näyttävät, että moderni sosiaalinen järjestelmä voisi parantaa työnkulun eri osa-alueita. Yleinen asenne tämän tyyppisiä ratkaisuja kohtaan tutkimuksen mukaan on hyvin positiivinen ja avoin. Kuitenkaan kaikille toimialoille ja yrityksille tämän tyylinen ratkaisu ei välttämättä sovi sillä prosessit ja toiminnot ovat niin erilaiset.</p> <p>Tutkimuksen tuloksia tarkasteltiin opinnäytetyössä esitettyjen teorioiden valossa. Nämä teoriat ovat johtaminen, tiedonhallinta, työnkulunhallinta, viestintä ja johtaminen sekä sosiaaliset työkalut työelämässä.</p> <p>Tätä tutkimusta tulisi käyttää vain suuntaa-antavana lähtökohtana tuleville, aiheesta tehtäville tutkimuksille. Tämä tutkimus ei ole tarpeeksi laaja, jotta sen tuloksia voitaisiin yleistää. Sen tuloksista voidaan kuitenkin saada yleiskuva siitä, mikä nykytilanne on Suomessa.</p>		
Avainsanat: sosiaaliset työkalut, työnkulku, tiedonjohtaminen, kommunikaatio, toimiala		
Muut tiedot		

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# 1 INTRODUCTION AND BACKGROUND

The objective of this thesis was to explore whether or not modern social software can be applied to working life in order to improve workflow management in different fields of businesses. To be more accurate, the research questions are:

1. What are the areas of workflow in different business fields that need improvement?
2. Could modern social software be useful in improving them?

This thesis was assigned by Netwell Ltd. It is hoped to offer them added value with the research that is concentrating on market research serving also the product development of their newest product. The empirical study explored the needs for improving workflow and communication in corporations in various industries and how social software tools can be used in satisfying these needs.

The starting point of the study is, as mentioned before, co-operation with a local information technology company Netwell Ltd.. Netwell Ltd. was established in 1995 and it locates in Jyväskylä. The mission of the company is to develop their customers' business operations and competitiveness through improving the information flow and productivity by utilizing social tools. Netwell Ltd. provides their customers with different kinds of softwares along with consult, support and maintenance of them. The authors were introduced to the company representative by Mr. Juha Saukkonen, a lecturer at Jamk University of Applied Sciences.

The staff of the Netwell Ltd. was considering development of a new product and wanted to study market demand for the concept. Moreover, they were looking for a fresh point of view on the product and wished to get feedback on the demo version of the product concept in order to get more information on the further development of the product if necessary.

The authors were found to be qualified for the study because of their previous experience in similar projects and their expertise in market research. The needs of

Netwell Ltd. met with those of the authors and the timetable for the project was set.

## 2 RESEARCH METHODS

While gathering the ideas for the study and the needs of Netwell Ltd., the authors realized that the research would need to be done in a very systematic and rational way in order to be credible and scientific enough, for a bachelor's thesis. According to Krishnaswami and Satyaprasad, a research in order to fulfill the definition of a scientific research needs to be a systematic and logical study of an issue or problem through scientific methods (Krishnaswami, O.R., Satyaprasad, B.G. 2011, 2).

This is why it was necessary to start by thinking of the actual ways to do the research. The only way of collecting opinions and ideas for the new product would be presenting it to the possible customers. Qualitative research is based on a subjective assessment of the researcher. The assessment can be based on the behavior, attitudes, opinions and behavior impressions of the research data collected in different ways. (Krishnaswami, O.R., Satyaprasad, B.G. 2011, 7.) It also served the purpose of the study better than quantitative method, since the objective was to get opinions and thoughts on the subject matter through open ended questions.

Quantitative research bases itself on the quantity or the amount and the outcome is presented through numerical terms. (Krishnaswami, O.R., Satyaprasad, B.G. 2011, 5.) Quantitative research was no option because of the client's request on submitting the results in a short time period due to the rapidly changing markets. Since the time was limited and the results were to be submitted in December 2012, the researchers chose not to take any risks and ended up performing qualitative research which was more suitable for the means of the study after all.

Research data is the material collected or used for completing the study. It is the information, the raw material used to find the end result for the research. (Krishnaswami, O.R., Satyaprasad, B.G. 2011, 85.) However, as David Silverman explains in part two of his book *Interpreting Qualitative Data*, qualitative research is

not easy to define. He claims that qualitative research can be such many things, that all research that is non-quantitative can be called qualitative. (Silverman 2006, 33-61.) Instead of one big group the qualitative field can be divided in smaller groups that are for example naturalism, emotionalism, postmodernism and ethnomethodology (Silverman 2006, 56).

This research is a combination of naturalism and emotionalism. In naturalism, as the word itself implies, the researcher is trying to find and collect the data as natural as possible. The best ways to collect data is to observe or to interview. In emotionalism, the researcher is after as intimate a relationship with the research subject as possible. There is an attempt to see the subject's point of view and the data collection is done by interviews or life history studying. (Silverman 2006, 57.) These two varieties of qualitative research offered the best ways to interpret the data in the research. It can be seen from the way that the questions were set to have open and honest answers. Also the researchers tried to have some small-talk with the interviewed person in the beginning of the interview in order to have an intimate and relaxed atmosphere in the interview. This was done in order to capture also the emotional side of things.

The data was collected through the interviews of selected companies. Structured interviews were chosen in order to get as honest and neutral a view on the subject as possible, but still valid answers to the questions set. According to Silverman, there are three types of interviews. The typology defines the structure and the way that the interview is done. It also defines what kinds of skills are needed in order to get good results. The interview can be structured, semi-structured or open-ended interview. (Silverman 2006, 109-110.)

In the structured interview, the interviewer stays very neutral, does not improvise and trains the interview structure before performing them. The open-ended interview is known to be flexible. The answers are collected through active listening and by understanding the interviewee. The semi-structured interview lies between the two mentioned above. It is done very much the same way as an open-ended



interview, but the interviewer keeps more firmly in mind the aims of the study. (Silverman 2006, 110.)

A base-line suitable for the structured interview was created. The base-line can be found in Appendix 1. However, after a few test interviews, it became evident that the structured interview had to be turned into a semi-structured interview. The same base-line was kept with some additional questions asked. This is why we ended up doing semi-structured interviews.

There were always two interviewers, one performing the interview by asking questions and the other writing down the answers. The interviews were also recorded and transcribed, in order to gather all the possible information needed for the study. Appendix 2 includes one transcribed interview. More about performing the data collection process will be explained in chapter 4.2.

### **3 THE THEORETICAL FRAMEWORK**

This chapter explains the theoretical background of the study. Since the complexity of the study, it relates to many theories. Just as in life itself, one thing is related to another. Management theories were found the most relevant theories concerning the research, especially knowledge management and workflow management, but the current use of social tools in working life and models of communication in organizations will also be discussed.

There were some problems in finding the right term to describe the processes and functions within the organization, that all effect on the efficiency and profitability of the work. Therefore a term, mainly known and used in ICT-businesses to describe the same thing, was chosen. This word is workflow and in this case it does not relate to programming or information technology, but the meaning of it is similar. More about workflow and workflow management is explained in chapter 3.1.2.

### 3.1 Management

Management in a broad sense is everywhere. People do it in their lives, all the way from managing their time to managing their finances. It can also be found in working life and different social and political situations. (Boddy 2008, 10.) To put it in other words, as David Boddy says, management is a universal human activity and a distinct occupation, where things are getting done with the aid of people and other resources (Boddy 2008, 9-10).

Previously in our society, when being a farmer was the most common job, the same person was performing the work by collecting the grain, deciding where to sell it, transporting it to the selling point and doing the actual sales, the management was on the shoulders of each person. (Boddy 2008, 10, 41.) Later after the industrial revolution, when efficiency and scale were something all businesses needed to focus on, the meaning of professional management was emphasized. The management, as we know it, was created then. It bases itself on bureaucracy and hierarchical structures. (Hamel 2009, 2.) In the 80s there started to form an information economy and by the 90s the industrial era of economy had fully begun. This economy bases itself on information and high-technologies. (Aburdene 2005: Aburdene & Nashbitt 1982.) Even more detailed knowledge of managing one certain area of the business functions was needed.

As different business areas need different kind of managing, also managing theories often change. Different models aim to identify the main variables in a situation and the relationships between them and the better they do that, the more useful the theories are (Boddy 2008, 39). The theories also help managers to find out which changes to the relationships of the variables will bring added value. A change in one variable might affect the other variables. In this sense the whole picture is very important to see at the same time. (Boddy 2008, 40.)

Competing values framework, which is developed by Quinn et al. , is one of the theories that do exactly that. The four management models: Human relations model, Open system model, Rational goal model and Internal process model, complement

rather than contradict each other. (Boddy 2008, 42.) While most of the managers today still stick to previous models, there are some new ideas about the future of management. These ideas are gathered by Hamel in his publication "Moon Shots for Management". In this article he explains the 25 new practices that managers need to take into consideration in order to survive in today's changing world. The new challenges are brought to the managers by rapid change, focus on creativity and the needs to have social- and environmental consciousness. (Hamel 2009, 2.) Hamel claims that organizations must become a lot more adaptable, innovative, and inspiring without getting any less focused, disciplined, or performance oriented (Hamel 2009, 7-8). This can be achieved by bringing the humanity and transparency to management. Transparency is often just as effective as a rigidly applied rule book and is usually more flexible and less expensive to administer. (Hamel 2009, 8.)

Some of these ideas are also found in other places in the literature. A management theorist, Patricia Aburdene, also thinks that the information era is coming to an end. In her book "Megatrends 2010: Rise of conscious capitalism", she explains how management is moving to an era of spirituality and self-mastery. (Aburdene 2005, introduction). She claims that the new era will heal the excesses of capitalism with transcendent human values (Aburdene 2005, 25).

For the purposes of our research these management models and theories are important to understand, because modern social software can be of aid in various management styles. These different models are often also related to the field of business the company is in. For example service businesses often have different goals than businesses in processing industry, even though success and profitability is common for all businesses.

Even though we now understand the complexity of management, we still need to contemplate management from a different angle. Management can also be divided in smaller areas by subject of management. These subjects in our study's case are knowledge management and workflow management. The next sub-chapters will be explaining more closely the meanings of these two concepts.

## Knowledge management

Knowledge management literally means managing knowledge. It is difficult to define because the more there are writers, the more there are definitions. It can be anything that has to do with knowledge or it can be seen as information technology system spreading out the know-how within the organization. The original definition of knowledge management is capturing, organizing, managing and sharing the knowledge, and the aim of this is to help the organization work more efficiently. (Dalkir 2011, 3-7.) The knowledge management theory is relevant to this research since the meaning of social tools is improve and increase organization's internal communication and information sharing, in other words, they are meant to receive, store and pass knowledge of certain specified subjects.

Knowledge is typically divided into two major categories, tacit and explicit. Tacit knowledge, which could be also called silent knowledge, is non-documented. "Tacit knowledge tends to reside within the heads of knowers, whereas explicit knowledge is usually contained within tangible or concrete media", (Dalkir 2011, 10). Explicit knowledge can be reports, audio recordings, memos or anything else in a documented form. According to Dalkir (2011, 10) the more tacit the knowledge is the more it has value which is contradictory in the sense that when the knowledge is difficult to articulate and pass forward its value is high. Understanding the differences between tacit and explicit knowledge is important but the concept of knowledge management lies deeper than in turning tacit knowledge into explicit knowledge. (Dalkir 2011, 11.)

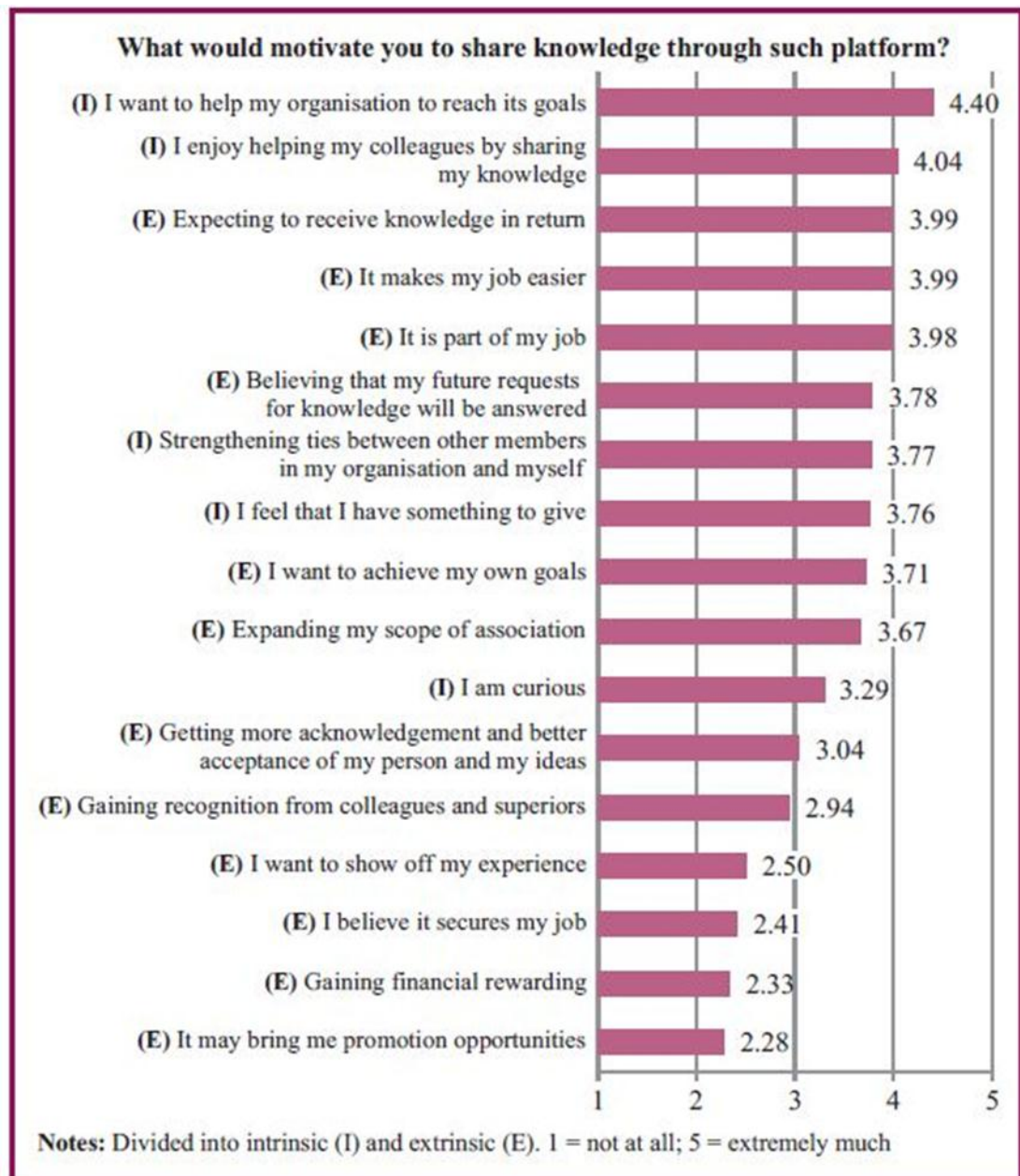
*In fact, knowledge management is broader and includes leveraging the value of the organizational knowledge and know-how that accumulates over time. This approach is a much more holistic and user-centered approach that begins not with an audit of existing documents but with a needs analysis to better understand how improved knowledge sharing may benefit specific individuals, groups, and the organization as a whole. (Dalkir 2011, 11)*

According to Cheema (2010, 138,) knowledge sharing means transferring all sorts of knowledge including tacit and explicit knowledge. The aim of the knowledge sharing

process, in which the receiver absorbs the knowledge sent by the sender or transmitter of knowledge, is to improve the organization's performance through effective information flow. (Cheema 2010, 138-139.) In his book, Cheema (2010, 139) refers to Lee and Al-Hawamdeh's (2002) conception of seeing knowledge as a power which leads to the reluctance of sharing it. In order to make people share knowledge, one must make them understand that they will only lose instead of gain when they keep it to themselves. (Cheema 2010, 140.)

Closely related to Cheema's idea of people's understanding of the value of knowledge sharing is also Vuori and Okkonen's (2012) study "Knowledge sharing motivational factors of using an intra-organizational social media platform". The study relates to the research very closely. In order to create value by using new technologies in knowledge sharing, people need to be motivated to use them as an information channel. (Vuori, Okkonen 2012, 598.) Vuori and Okkonen (2012) conducted a survey to find out which are the motivating factors in sharing knowledge through a platform.

As figure 1 shows, the most motivating factors are the kind that would benefit the whole organization and improve its performance whereas financial rewards were seen the least motivational. According to Vuori and Okkonen (2012), people were eager and motivated to share knowledge by using an intra-organizational social media platform. Still, the complementary comments on the research indicate that a rewarding system for the employees would be a good way to motivate knowledge sharing.



**Figure 1 - Factors motivating to share knowledge through intra-organizational social media platform (Vuori, Okkonen 2012, 598.)**

Vuori and Okkonen (2012) also studied the possible barriers which might hinder the knowledge sharing by using a social media platform. The study shows that people are afraid that it will increase their workload or the platform would be just another information system. Also a question arose of how employees, especially the older ones, would adopt this kind of system. However, despite the motivational factors

and barriers, the organization itself plays the biggest role in knowledge sharing. If the organization's culture is not encouraging knowledge sharing, it does not matter whether the employees have modern social tools or not, they will most likely not use them. (Vuori, Okkonen 2012, 600.) Regardless of methods or systems used, the value of knowledge sharing and knowledge management is undeniable.

### **Workflow management**

Workflow management is literally managing work processes in a way that the steps follow right after each other forming a flow. Workflow is a description of operations that are declared as work. That work can be done by any part of the organization where the actual work is done in. (ISO 12052:2006.) To be more exact, as in a definition by Margaret Rouse (04/2005) in SearchCIO database, workflow is a term used to describe the tasks, the steps, the people involved and the tools needed for each step in a business process. (Rouse 04/2005.)

The term itself is used in many different business fields, but most commonly it is known in ICT-businesses and as an aid in programming. This is also the reason why the concept of workflow is hard to find in any other situations in literature and surveys. However it is a common concept that explains a step-by-step chart of a process, which considers all the inputs and outputs. It is easy to follow and it bases itself on registration of information.

A good example of workflow management discussions can be found in a Business process management (BPM) standards survey where Ryan, Stephen and Lee (2009) discuss the differences between workflow management and business process management. In their opinion based on previous research workflow management is merely a supporting technology to business process management. (Ryan K. L. Ko, Stephen S. G. Lee, Eng Wah Lee 2009, 748 – 749.) This might be true, but in general workflow management focuses on processes rather than documents, even though it is at the same time very focused on data. (Rouse, 04/2005.)

In the light of these explanations of the meaning of workflow and workflow management it is reasonable to claim that this term is best to be used in the context of this study. The study relates closely to business processes that are presumably needed to control with a modern social tool. This indicates that the processes need to be seen as a flow of work and things that effect to it.

### **3.2 Management and communication**

One of the important aspects of management is communication. Communication means sharing information between people who are reaching for mutual understanding. (Boddy 2008, 525.) “Managing depends on conveying and interpreting messages clearly so that people can work together.” (Boddy 2008, 525.) Communication plays an important role in organizations and if it works well it can add value to innovation, quality, delivery and cost. When the information reaches all employees and they are aware of the current situation their performance is more likely to improve. (Boddy 2008, 526.)

Communication does not only benefit the organization’s processes, it also influences on workplace well-being and of course in that sense the performance of the employees. According to Hiam (2002) the studies show that often the case is that the employees feel that the communication between them and the management is not open or full enough. Weak communication between the employees and management often leads to resignation whereas open communication can build employee motivation. (Hiam 2002, 35.) After all, employees’ ability to function and bring high results at their work shows how well the manager is communicating, interacting and guiding the employees. (Ellis 2004, 24.)

In order to communicate effectively, the communication channels must be clear and efficient. In this research the authors concentrated on finding out which areas of workflow could improve through effective communication. The traditional ways of communication are face-to-face communication, spoken communication



electronically transmitted such as telephone conversation, personally addressed written communication such as emails and letters, impersonal written communication which is a message that has been sent to a number of people e.g. newsletters or blogs and blogging. (Boddy 2008, 532-536.)

### **3.3 Modern social tools in working life**

The research concentrated on social tools as information channel within the organization. Social tools are different kinds of social networks and softwares often found in Internet free of charge. Mainly social networks are known to be used in people's free time, but lately business world has started to adapt these methods of communication. (Kimball and Rheingold, 2000.) Most commonly known social networks are e.g. Facebook, Twitter and LinkedIn which are mainly in people's private use.

Using modern social tools in working life and especially using social softwares within the organization is relatively new concept and therefore there is not great deal of studies about it, yet. Unlike social softwares, social networks and social media have been part of business life for some time now especially in the form of brand marketing. According to Mikael Mikkonen's article (2011) in which he interviews a specialist named Mr. Kasvi from Tietoyhteiskunnan kehittämiskeskus, social media is an undefeated way to share information. Social media enables employees to be updated about the progress and current actions in their industry. (Mikkonen 2011.)

Kimball and Rheingold (2000) share the opinion that social networks can benefit the organization. Below is a list they have created of the advantages that social network can bring.

1. *Create an early warning system.*
2. *Make sure knowledge gets to people who can act on it in time.*
3. *Connect people and build relationships across boundaries of geography or discipline.*

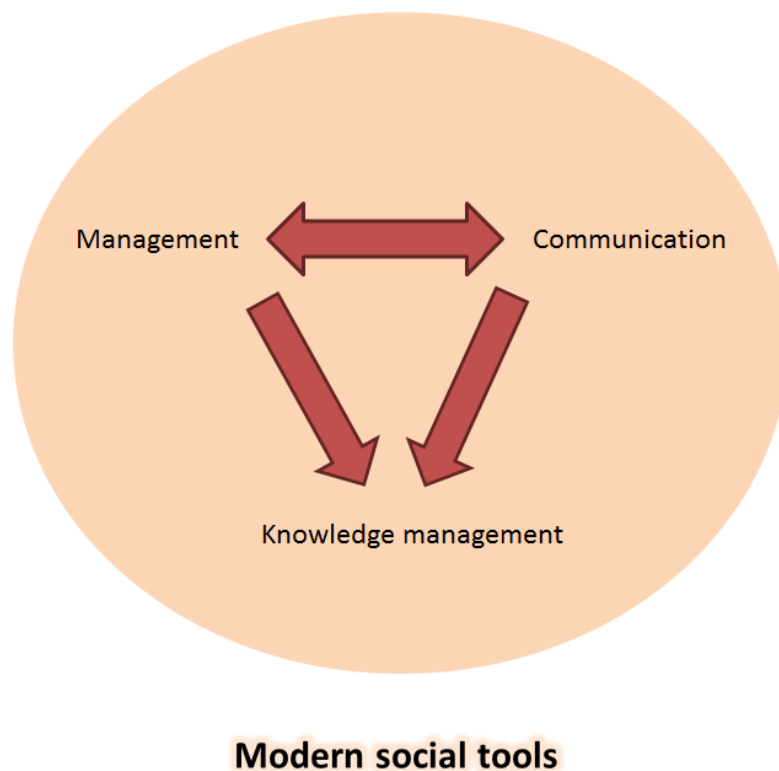
4. *Provide an ongoing context for knowledge exchange that can be far more effective than memoranda.*
5. *Attune everyone in the organization to each other's needs – more people will know who knows who knows what, and will know it faster.*
6. *Multiply intellectual capital by the power of social capital, reducing social friction and encouraging social cohesion.*
7. *Create an ongoing, shared social space for people who are geographically dispersed.*
8. *Amplify innovation – when groups get turned on by what they can do online, they go beyond problem-solving and start inventing together.*
9. *Create a community memory for group deliberation and brainstorming that stimulates the capture of ideas and facilitates finding information when it is needed.*
10. *Improve the way individuals think collectively – moving from knowledge-sharing to collective knowing.*
11. *Turn training into a continuous process, not divorced from normal business processes.*
12. *Attract and retain the best employees by providing access to social capital that is only available within the organization.*

(Kimball, Rheingold 2000.)

To summarize shortly the list above, social networks can bring efficiency, flexibility, a possibility to build more relationships and a possibility to work more and more dispersed. These factors without question boost employees' performance and speeds up the organization's reaction time to changing conditions. Social network can't replace face-to-face communication, but it brings new ways, methods and styles of communication into the organization which can add value and bring new assets to the organization. (Kimball, Rheingold 2000.) The key question is that "the knowledge of how to use the technology, not the software or the physical means of transporting it, will be the strategic advantage of those who possess it and diffuse it." (Kimball, Rheingold 2000).

### 3.4 Fusion of theory elements

In this chapter the authors will explain the way they see the elements of theories, explained above, attach to each other. The picture drawn by the authors is a visualization of the theories synthesis.



**Figure 2 - Fusion of theory. Schematic picture by Hakkarainen & Hölttä**

Management and communication are subjects that live side by side, always supporting and affecting each other. Knowledge management as a theory combines these two subjects. It offers a chance to observe them closer combining the necessary elements of information sharing and its effects on management. Modern social tools are environments, in the authors' minds, that offer merely a new platform to support these.

Workflow is something that is in all organizations and it is affected by all the things in figure 2. Management is trying to keep the workflow together and at the same time possible lacks in communication are tearing it apart. The modern social tools offer a solution to bring the focus back on the work itself or things that are closely related to it by improving the communication.

## 4 THE RESEARCH IMPLEMENTATION

This chapter will be explaining how the research was performed. A closer view on the pre-work and data collection parts of the thesis project will be given.

The empirical part of the research was strongly based on the needs of the client, Netwell Ltd., but of course was also affected by the needs of the thesis project. Everything started with a meeting with the client in order to have a clear view of their needs. Afterwards, a research plan was created (Appendix 3.) and a timetable was set. The research was conducted according to these two.

The so called pre-work of the project can be divided in two groups, formulating the interview structure and finding the interesting companies for an interview. The two parts were done at the same time parallel to each other. For this part of the research the researchers had about two weeks after the first meeting with the client. During these two weeks regular meetings with the client were held to keep them updated.

The interview structure started to form from a sort of a questionnaire into actual interview questions. As the interviews were done in Finnish, the interview structure is also in Finnish. (Appendix 1.) After a good structure for the structured interview was formulated, three test interviews were done. Two of them were done with JAMK professors and one with a representative of the cleaning industry, a cleaning supervisor, who is a friend of one of the researchers. These tests were done in order for the researchers to see if the interview structure is functional. It turned out to be nonfunctional so in co-operation with the client, the researchers ended up doing some changes. At the same time, it was realized that the semi-structured interview was a better model for the purposes of this study.

The second part of the pre-work was a bit trickier one. It consisted of finding the target market for modern social softwares, collecting the interesting local companies' names and contact information. The first idea was to look for companies that are in the processing industry with their employees working in shifts. There was also an interest in companies where the employees work in various places and move a lot

during their workday. Many of these first ideas of the industries to be interviewed were based on the ideas of the client, but as the study progressed, the researchers added a few new industries to the company list.

59 companies representing 12 different business fields ended up found. These business fields were health care, facility services, metal industry, furniture industry, construction, logistics, printing, security services, food production, call center and tourism and leisure. After going through these companies with the client, they were divided in two groups: the very interesting ones and the less interesting ones. There were equally interesting companies in all of the industries, except one, the call center industry as a whole was put in the less interesting group.

After finishing the company list the companies were of course contacted in order to get the interviews done, but that is more closely explained below.

### **Collecting data – contacting and interviewing the companies**

As mentioned before in chapter 2. *Research methods used* it was decided from the beginning that interviews would be the best way to collect data. So after collecting the list of interesting companies and formulating the interview structure, it was time to start contacting the companies and agreeing on the meetings for the interviews. For this part it was planned to spend about four (4) weeks.

The companies were started to contact by calling them. In order to get the message through as well as possible a script for the calls was created (Appendix 4.). In some cases it took more than five calls and a few e-mails before the right person to talk to was found, but in some places the first call brought immediate results. In order to stay in track on the timetables an online calendar for booking the interview times was used. A great hit-rate on the booking attempts was reached, since 20 companies were contacted and 13 of them interviewed. Only 6 of the companies refused to be part of the project with good reasons, the current co-operational negotiations being one of them.

In every company there were two interviews done in order to get more layers on the subject. There were one person on the supervisory level and one from the employee level. Our request for the companies usually was to have a worker who really works “hands on” for example in their production line. Most companies could obey the wish, but some could not. However in all of the companies answers to the questions were given.

The interview was done by two interviewers according to the structure presented previously (Appendix 1.). During the interviews one of the interviewers was in an observing role and one in questioning role. The observing researcher also took notes of the interview. In order to make things easier also for the interviewee, there were also hand-outs given during the interview. The interviews were also recorded with an iPad and transcribed later for analyzing to ensure that all of the necessary information was documented. An example of a transcription of an interview is also in appendices (Appendix 2.) in order to prove the validity of the methods.

## **5 DATA ANALYSIS AND RESULTS – THE STUDY OUTCOME**

The aim of this study was to get answers to two questions: What are the areas of workflow in different business fields that need improvement? And could modern social software be useful in improving them? In this chapter these questions will be answered through the results of the collected data.

In the interview questions, the most important answers were the ones for questions 1. - 7. (see Appendix 1), when thinking about the research questions. In these questions the interviewees were asked to prioritize the importance and evaluate the functionality of the company’s current situation in different business functions. These business functions were: observations and instructions, quality control issues, task controlling, ideas for development, dangerous situations, problematic situations and changes in scheduling. At the same time they were asked to evaluate if there

would be any way of improving the current situation and if so, then what would be the best way for that.

## **5.1 Data analysis according to the industry**

After collecting data via interviews of different companies, it had to be analyzed. In this chapter will be explained all the findings of our data according to the industry. The industry division, utilized in this case, is the official one of the European Union ([http://ec.europa.eu/enterprise/sectors/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/index_en.htm)). At first, it needs to be stated that in many industries we interviewed only one company and thus the findings should not be generalized. The study still gives an overall picture of the current situation in attitudes towards social software usage in Finland.

### **5.1.1 Health care industry**

The mission of the health care industry is to improve and maintain the well-being and health of people as well as prevent illnesses and take care of those who have fallen ill. The health care industry is a growing business especially in Finland due to the social age structure. Many of the private companies work as subcontractors for the counties. The researchers interviewed a middle-sized company from health care services which offers nursing home services and home care services.

The surveillance of different workflow areas seem to be in good control in this company. The information flows well and different types of problematic situations are managed well. The main channel for knowledge sharing and informing is a Microsoft Word document that is available on all the computers in the nursing home and all employees are able to read, update and edit it. Some of the work related processes or issues such as quality control issues and dangerous situations are documented on special paper forms. Urgent matters are usually discussed on the telephone.



The people working in the nursing home are managing fine with the current tools available but the people working in the home care services would need a better coherent channel for communication. In the home care services, the work is very independent. Employees make house calls and are therefore far from each other and far from their supervisors. Especially in the case of changes in timetables, communication and reorganizing the tasks among the employees is difficult and demanding.

The attitude towards modern social software usage was positive according to the interviews. It was seen to bring efficiency to the information flow and cost savings when the interruptions in work can be avoided due to effective knowledge sharing.

### **5.1.2 Facility services industry**

Facility services consist of cleaning and maintenance of buildings. There are many companies in this business field and the competition is fierce. The work is varied. Thus, efficiency and profitability are very important. The company that was interviewed in the facility service business is a small company and mainly doing maintenance of buildings.

Currently, there are some minor problems with the information flow in this company. The main information channels are phone and e-mail. For the purposes of task controlling they are using a special program developed for their needs. Mostly, the information on the phases in the work process is given orally so no history or record remains.

The people working in this company seem to be quite happy with their work, and there seems to be a lot of it. Whatever solution they will have, it needs to be very easy and quick to use. The communication between people working in different places would need to be bettered in order to reduce stress and increase effectiveness.

The general attitude towards modern social software is very open and the company sees its advantages in knowledge sharing. The company has already invested in the change in the form of equipment, but they have not yet found a suitable solution for their purposes.

### **5.1.3 Metal industry**

The metal industry is quite multidimensional and there are many different businesses in Finland. Many of them do subcontracting for greater global producers. In the metal industry, two companies were visited, a big one and a small one.

Both of the companies are using production control systems which are serving the companies' needs quite well. On the other hand, these systems do not support communication between the staff or sharing information. In the larger company, they have person in charge in every shift who is responsible for informing others about important things. According to the Chief Executive Officer of the smaller company there is no need for these kinds of arrangements since the company is so small and they all work in the same facilities.

Despite the fact that things are under good control in both of the companies, some flaws were found. In the smaller company the observations and instructions from employer to employees or from employee to another are often written on a piece of paper and sometimes those papers get lost as well as the information on them. Electronical system, such as social software where people could write these notes, could be solution to this problem. In the larger company, the problems seemed to be handling the changes in timetables and documenting dangerous situations. Whenever there appear changes in timetables or dangerous situations happen, those should be written down according to the instructions. The problem is that the employees don't always do this. Social software could make it easier to record this kind of information since the systems companies use can be very stiff and complex sometimes, but the main thing is to motivate people to record these things.

The overall attitude towards technology in information sharing was positive, but neither of the companies did not see enough advantages, that could be achieved through modern social software and they would not most likely buy one. In fact, in the larger company, it was seen negative that all the employees would have access and possibility to share information through social software. They thought it could work if the usage of the software was limited among certain employees.

#### **5.1.4 Furniture industry**

Furniture industry is one segment of processing industry. There are many different kinds of companies within this segment, some producing design furniture and some manufacturing industrial furniture. Two companies from the furniture industry were interviewed, both of them medium-sized. The companies are specialized in producing industrial furniture. In order to separate these two from each other, let's call them company A and company B.

In both of the companies, they use production monitoring systems in which they have all kind of information related to the production processes. Other kind of information flows in the spoken or written form.

In company A, it seemed that communication and information flow are in good control except for two areas: development ideas and dangerous situations. The problem seemed to be that the employees cannot follow the processing of their ideas, and the reporting of the dangerous situations can be sometimes time consuming. These could be improved by using an easy and fast system of registration such as modern social software.

In company B, things also seemed to be taken care of. The information from employer to employees and between the employees is mainly oral. The problem is that sometimes the information disappears. It was also evident that suggesting and processing developmental ideas did not work well but the main problem they seem to have is that their system is heavy and they would need something easier to use in knowledge and information sharing.

Both of the companies reacted positively to the software we showed them. It became clear that the software should be customized but they still thought that it would definitely improve the communication within the organization and thus making it possible to save costs. The only concerns were how well the workers would adopt a social software and how to make them commit to its usage.

#### **5.1.5 Construction industry**

Construction industry includes both new construction production and renovation contracts. Construction industry is strictly regulated and the production is supervised since the risk of injuries is high. The interview in this industry was performed in a medium-sized company that has both new construction production and renovation contracts.

Due to the strict regulations the information flow and communication is taken good care of. Different areas of workflow are in good control but there is place for improvement in handling task control and problematic situations. Task control can cause problems if somebody gets sick or has to be absent because the information is very often oral. Social software in which one could easily check the current situation and see the history would be very useful for this occasion. Problem in handling problematic situations is that in case of reclamation, the process is very long and it is hard to keep on track of the emails sent and phone calls called. It could be easier if all the information would be gathered and updated in the software so that everyone would stay on track of the process.

Attitude towards modern social software or technology itself in communication and workflow controlling was very positive. Software was seen to be better and more efficient replacement for the current flap boards.

### **5.1.6 Logistics industry**

Logistics industry is multidimensional and includes several different functions such as transportation and storing but it has many other functions as well. Logistics industry is very prone to changes and requires constant supervision so that the processes and functions are performed in time. The logistics company that was interviewed for the study is focusing on transportation. The unit visited was small, but nationwide the company is large.

It became clear in the very beginning of the interview that communication is working poorly in the company since they don't have any special channels for it. The information mainly flows oral or via email. Knowledge and information seems to stick only within the heads of the knowers.

Lack of effective communication channel still did not seem to affect the workflow too radically. Handling development ideas is not working at all at the moment since the ownership of the company had changed lately and they are in the middle of the transformation phase. According to the interviewees the information flow is not always watertight and this was seen as a problem and a place for improvement.

Attitude towards modern social tools in communication and knowledge sharing was positive. The company is right in the heart of the target market for modern social softwares since they would need an effective and easy solution for communication.

### **5.1.7 Printing industry**

The printing industry belongs to forest-based industries since the raw material used is paper, wood. Forest-based industry is one of the leading industries in the world but it also faces many challenges such as access to the raw materials, climate change, innovation etc. As many other industries studied in this research, printing industry is also various. The printing company that was interviewed is printing both newspapers and magazines. The company is medium-sized. The company was ideal for our research since they have shift work which was one of the interests of the client.

The work in the company is quite hectic and there is not much room for changes in timetable so the workflow is in good control. Still, the workflow could be accelerated through more effective communication and information flow. According to the interviews it would be good to have follow-up notices and client reclamation visible for everyone, for example on the “wall” of modern social software because it would help keeping everyone on the same track. More efficient way to collect and process development ideas was also missed.

The company responded very positively towards modern social software and the idea of improving workflow through effective communication via these kinds of solutions. Even though things were working very well and there did not seem to be many problems with the workflow, the company saw the software as a possibility to improve workflow even more.

#### **5.1.8 Security services industry**

Security services include guard services, electronic security systems and fire safety systems. The company visited offers also cleaning and other facility services, but only the security department participated to the interview. The company is large.

The company has many different kinds of systems for communication and knowledge sharing. Different areas of workflow do not seem to require much improvement. The only problem is that the guards have several different places where they work and not all the communication systems are suitable for all the places. The solution to that problem would be to have a single system which would serve all the needs and purposes of all the employees in the company.

Since they already have several different systems in use, the company’s attitude towards getting a new one was reluctant. Still, the attitude towards modern social software was positive and it was seen to be contemporary and part of future and it was seen useful in improving employees’ satisfaction as it would be easier to express one’s opinion.

### **5.1.9 Food production industry**

Food production as a business area is quite different from others in Finland. There are many different sized producers and they are very important countrywide. As a representative of food production industry, one company was interviewed. The company is large.

In this company the information is recorded in many places. There is a production control system, different excel -files and sort a of a driver's log, that is just a notebook where each machine operator can write their observations for the next one to see.

Even though the company has many different ways to collect information, there is definitely room for improvements. It seems that the communication between the internal clients is not always working as well as between the employees placed in one room. The safety and hygienic instructions are strict thus sometimes causing problems that need to be informed to the different departments.

The general atmosphere and attitude towards modern social software is quite positive, and especially the supervisor seemed to be eager to test one in practice. The costs of taking one can, however, be quite high since they do not have equipment to use modern social softwares at the moment.

### **5.1.10 Tourism and leisure industry**

Tourism and leisure time services as business areas are various. Tourism is an important economic sector and it involves both products and services. Leisure time services can be anything that provides people hobbies that take place during their free time. Both of these industries are meant to improve people's quality of life and well-being. Two different companies were interviewed. One of them is a producer of fairs and meetings and the other is in winter sports business. In both of these cases the amount of employees varies a lot according to the season and situation.

The fair company has several areas of workflow that would need improvement as well as the information sharing itself. The main problem is that the system they are using is very disorganized and searching of information is very slow and difficult. This is causing problems to passing observations and instructions. The bigger the event is, the more complex the instructions get and since a suitable way of categorizing the posts in the system are missing, it gets hard to follow. There are also problems in controlling quality issues and handling development ideas but this has more to do with the reaction time and the people than with any system.

On the contrary, areas of workflow are in very good control in the winter sport company. The only problem seemed to be passing observations and instruction since they don't have a proper system for that. Mostly these things are discussed oral but of course there are situations when it is not possible.

Attitudes towards modern social software were positive but either of the companies would not purchase it at least not right away. Due to the work's nature in the winter sport company, it is not practical neither possible to use softwares in information sharing. The best way for them is to stick with radiotelephones as the information reaches many people at the same time. The fair company sees the advantages of the software and would consider it to be used in the maintenance of the facilities but in the actual fair production it is not practical, because the information has to reach everybody since it usually is something urgent. They use radiotelephones and mobiles as well.

## **5.2 The Results of the study**

In this section the authors will present the results that are based on the data analysis stemming from questions 1.-7., as explained in the beginning of this chapter. In addition the results are based on the other possible material that was collected in the interviews.



As per figure 3 below one could say that the areas of workflow are all in moderate or quite good level since they all get an average value above 3 in the scale from one to five, five being the best and one being the worst. In considering the values it has to be remembered that when the sample is small, the average value often gives rather misleading picture. However since the interviewees were asked to give values to the importance and current situations of the workflow areas, it would be a waste not to utilize them. The given values were always asked to be justified and explained so that the research would still be qualitative.

THE CURRENT SITUATION	Observations and instructions	Quality control issues	Task controlling	Development Ideas	Dangerous situations	Problematic situations	Changes in scheduling
Health care services	4	4,5	4	4	2,5	4	4
Facility services	4	3	3,75	4	3	3	4
Metal	3,88	4,25	4,25	4	3,25	4,5	4,5
Furniture	3,25	3,25	3,5	2,25	3,75	4	3,75
Construction	3,5	4	4	4	4,5	3,5	3,5
Logistic services	3	3,5	3	2	2,5	3	3
Printing	4	4	3	4,5	4,5	4	4,5
Security services	3	4	4	3,5	4,5	4,5	3,75
Food production	3	4,5	2	3,5	4	3	3
Tourism and leisure services	3	3,5	3,75	3	4	4	4
<b>AVERAGE</b>	<b>3,46</b>	<b>3,85</b>	<b>3,53</b>	<b>3,48</b>	<b>3,65</b>	<b>3,75</b>	<b>3,80</b>

**Figure 3 - Current situation of the workflow areas**

In the interviews it came out that the areas of workflow that in most cases were said to be problematic were observations and instructions, task controlling and development ideas. This can be verified also by the average numbers in figure 3. Quality control issues got the highest evaluation and are the strongest area of the workflow. Dangerous situation -area is also important to mention, since it got rather high values. This can be explained by the importance and strict safety control orders in Finland.

Now that the areas of workflow in different business areas, that need improvement, are identified to be passing and sharing observations and instructions, task controlling and sharing and processing development ideas it's essential to analyze the reasons behind the dysfunctionality. Reasons behind the dysfunctionality will also help in answering to the second research question whether or not modern social software can be of help.

### 5.2.1 Analyzing the problematic areas of workflow

Observations and instructions shared between the staff were not working fluently in many of the companies that were interviewed. One of the most common reasons causing dysfunctionality was simply uncertain information sharing and unclear methods of sharing it. In companies where the observations and instructions were either passed oral or written on a piece of paper, the information tends to disappear. The papers get lost or thrown away by accident and the oral information relies on people's memory to share it and remember it. It was also seen as a problem that when the information is not documented clearly or there is no way of documenting it, it is impossible to go through the past things or get back to them.

This leads to other problems that were discovered during the interviews. The current employees usually know how things need to be done and the more important, observations and instructions have become routine to them. The problem is, that when new people are hired and when the information is not documented or it is not possible to go through the documentation, they will not perform as well in their job as they would if they would have the access to the same information the older employees already know. When the information is only in the heads of the knowers it can also cause problems when somebody is absent because then the knowledge is gone too. The worst case scenario is that huge mistakes are made because of imperfect information. These issues stand out especially nowadays when the rising trend is to use services of staffing companies.

In several companies the problem seemed to be that there either is an uncertain system in use or there are too many systems in use. When there are several systems and one should write the same things to each system, one system can be easily forgotten. There was also a company saying that even though they have several systems that serve information sharing, not all the systems serve the needs of all the employees or the processes. It was also mentioned in many interviews that even if they have a system or method of documenting things not all the workers are doing it or the notation varies too much and is causing difficulties.

The companies who had problems with sharing and passing observations and instructions due to various reasons came up with improvement ideas. Many of them thought that electronic system, where one could easily write important information, would be a good solution. In companies where there were several systems, they hoped to have one single system that would replace the old ones and also serve all the possible needs within the company's information sharing and communication. The companies' representatives also hoped for a possibility to categorize things so that it would be easier to find information on certain matter.

The problems in development ideas area were concentrated in two dysfunctional things: collecting the development ideas and processing them. In many of the companies the development ideas were oral. Like in observations and instructions, things are easily forgotten if they are not written down somewhere. On the other hand, the problem behind dysfunctionality in collecting and processing development ideas is sort of a treadmill. Many of the workers in the interview said that employees do not care to use their time on suggesting development ideas because the handling process is uncertain and slow and the employees are rarely informed whether their ideas are noticed or not and even if they are, the ideas seldom leads to any action. On the other hand, some of the employers said that they would want more development ideas coming from the employees.

The improvement suggestions for development ideas that came up in the interviews were very practical and developable. The companies hoped that employees could write down their development ideas and that the process would be transparent. If the employees see that their ideas are taken into consideration, it would be likely to increase the number of suggested development ideas.

One of the reasons why task controlling is not working is that companies rely on their regular employees to know their tasks and therefore the documentation or written instructions are missing. Problems arise when new employees are hired and they would need more guidance but it is often the case that people are too busy and the orientation is done as quickly as possible. In one of the companies the atmosphere is so hectic that the workers do what they can and they do not have clear instructions

about who does and what and especially there the new employees are on their own and clueless.

A simple solution that the companies suggested on how this area of workflow could be improved is to have a clear, systematic way of writing down the tasks and keep on track what tasks should be done and when.

### **5.2.2 Can modern social software be of use?**

Clearly, according to the factors behind the dysfunctionalities, one could say that modern social software can be of help in improving the efficiency of certain areas of workflow. The whole idea behind modern social software is that both employers and employees are able to enter data into the system and share information and keep the communication lines open. The most common reasons for problems were insufficient information and knowledge sharing and lack of communication and thus modern social software could definitely help improving workflow.

The type of industries that would benefit the most from a modern social software according to our research are the ones that have heavy machinery, clear working processes and where the employees are working dispersed far from each other or far from their supervisors. Still, this does not mean that companies that do not relate to all these features could not benefit from modern social software. A good example of this is the logistics industry. Despite the fact that it does not have heavy machinery, the company can still benefit from the solution.

Nevertheless, it is not so simple. Based on the interview material modern social software may not always be suitable for all the industries or companies and even if there are problems in the areas of workflow, modern social software is not necessarily the solution. Sometimes the work can be so hectic and fast-tempo that using these kinds of systems is too slow when the things need to get done at the very moment. The case may also be that the amount of face-to-face conversations is so valuable that it cannot be replaced with anything else. The company culture might also be a factor that works against using modern social softwares. This proves that

despite the benefits and advantages the softwares bring, they can never replace oral information sharing or communication.

Follow up of dangerous situations was evaluated to be very important but it did not still always work as well as the importance of it requires. Modern social software might not be the solution for this since it is the employees who do not fill in the so called touch and go -reports. The reason for this in most of the cases was not the difficulty of doing it but the fear of being blamed. In these types of situations when the functionality depends on employees' motivation, modern social software can only support the improvement that needs to take place as an open communication and information sharing channel, but the solution will be found in the management and leadership.

### **5.2.3 Conclusions**

As it can be acknowledged from the results of the study there are possibilities in enhancing the workflow and social softwares could be helpful in that. Still, it needs to be recognized that the results vary depending on the interviewed person. The differences can be seen especially between the supervisors' and the employees' answers. One example of this is observations and instructions -area in one of the companies where opinions were very different considering the current situation. The supervisor thought that this area is working well, whereas the employee thought that there is plenty of room for improvement. As it was explained in the management theories above, management has to take more humane direction in order to survive in this fast-changing global environment. One step towards this is clearer and more efficient communication in the organization.

The companies were struggling with efficient knowledge and information sharing which are essential in order for the company to develop and grow. In order to improve knowledge and information sharing one of the important actions to take is to improve the communication within the organization which also requires the management to communicate more clearly with the employees. This automatically

improves the workflow since the right knowledge reaches the right people at the right time. Modern social software can bring new flexible ways to implement these actions.

However, it has to be kept in mind that there are some risks in using a social software in working life. Many people are used to social media in their private lives and so they might not understand the difference between using e.g. Facebook and social software at work. The risk is that people will not stick to the subject, but will start using it as a chat room. This would hinder the advantages of the software since there would be too much information in it and it would also consume the peoples' working time remarkably. When these risks are identified and taken into consideration, social software is and can be a real asset for the company.

## **6 DISCUSSIONS**

The aim of this chapter is to estimate if the study is valid and reliable. Also the possible bias, the researchers had before starting the study, will be discussed and how those might have affected the results. In the end, it is necessary to discuss whether there is a possibility to use this study as a base for future studies or researches.

### **6.1 Bias**

In the beginning of this study the researchers got very excited about the new product that was introduced to them by the client. In that sense one could say that the researchers' bias was in favor of the modern social softwares' to be helpful in workflow and workflow management.

Still, even though the attitude towards the modern social software was positive, some doubts occurred. The research was thought to raise some issues such as would the social software be seen as effective tool and would it be hard for the older people to use. Also the idea of a “Facebook” at work might be intimidating for some employers.

In general, however, the bias was positive and that might have also affected on some of the questions asked during the interviews, thus also affecting the answers of the interviewees. In the research methods part the researchers claim to use a combination of naturalism and emotionalism. This can be seen from the analysis of the data as the opinions and ideas of the interviewees were taken as natural as can be. Also the researchers tried to empathize and understand the situation and the environment of the interviewees as well as they could.

This being said the researchers tried to get the data collected from different companies as honest and objective as possible, always taking the side of the person answering the questions. In this sense, the bias had little to do with the answers and the results in the end.

## **6.2 Validity and reliability**

Since the subject of the study relates to many theories, the study still supports the theory in the sense that effective knowledge and information sharing as well as effective and sufficient communication helps the employees to work more effectively. Modern social software is especially effective in communication on the work place.

Since the subject of the study is fairly new, the researchers had to look for the theory from many sources. There is no direct theory available and so it was decided to combine management to workflow, knowledge and communication in order to view the subject from different angles. Especially after analyzing the information gathered in the research, it was clear that these theories were to be used in this study. For

example the main idea of knowledge management is to turn knowledge into an asset. When the knowledge is shared, processed and stored properly, it helps the company to perform better and therefore stand out from the competitors. As it was found out, sometimes the areas of workflow were not working due to insufficient knowledge sharing which causes problems to the organization. It was found out that modern social software could be helpful in improving this situation.

In the theoretical framework Aburdene's concept of the information and high-technology based economy was mentioned. Even though these theories take place in the 80's and 90's, information based economy does not seem to have disappeared. The current era, which has been said to be in its end, is utilizing the most wanted products of the previous decades, social tools. This relates to the study very closely and the research seems to prove this quote right. According to the research, information and knowledge was seen very important unless crucial in the companies that were interviewed. The organizations simply cannot function properly if not at all without effective information and knowledge sharing.

The attitudes towards modern social software were positive and it clearly could have a place in the organization and also provide value to the management and change the organizational structure. According to the results modern social software could really help some areas of the workflow as well as it could improve the general information and knowledge sharing within the organization in a completely new way by bringing in the social aspect. This proves that business world as well as the organization's operations and management are changing into new direction just like Hamel is saying in his article "Moon Shots for Management" that was discussed in the theoretical framework. These examples show that the study supports the theory.

As it has been stated before, the study is relatively small and the results cannot be generalized but still, it gives a suggestive picture of the current situation in the study field and provides answers for the research questions. The reliability of the study might be suffering due to the limited resources, because it was not possible to interview more than two people within one company and those people were selected by the company. If the researches would have had the freedom to interview



whoever they wanted, the results would probably vary more than they do now. The interviewees' personal opinions and attitudes have a great impact on the results also, but since the study was a qualitative research, all these factors are an important part of the results of the study. It is also important to acknowledge that since modern social softwares are in their early development stage this study may not be relevant after few years. The ICT-business develops and changes rapidly and can bring new and better solutions to organizations which might change the workflow.

### **6.3 Recommendations for future studies**

In order to get even more accurate view on combining workflow management and modern social softwares in working life, the researchers recommend performing a larger study. Depending on the aims of the study the recommendations for conducting further studies vary. This study aimed to get an overall picture including many different industries and companies in Finland. The different aims could be for example to see if modern social software could be useful in one specific company, if it has some possibilities in one particular industry or if it has possibilities in changing the overall structure in businesses in general.

In the case of researching only one company, the recommendation is to interview as many people as possible from different departments and functions of the workflow. This way the data collected would give more precise view on the company's need for improving the workflow. If the aim of the research is to find out if a modern social software has significant value within a certain industry, the researcher has to interview and study a great deal of companies in that industry. In this case it would be also important to interview as many people as possible within one company. This is also the case in studying if a modern social software can change the structure of workflow and management in businesses in general, but then the researcher has to study as many industries as possible and very precisely.

Besides extending this study, one option could be to study more about the areas of workflow and deepen the understanding of them and their connection to the entire business. One could find out more precisely do the important workflow areas vary between industries, how they are working and what are the problems or issues there. This is the kind of subject that can take ages to explore and it is changing all the time, and thus it offers many possibilities for new research ideas.

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# APPENDICES

## Appendix 1: Interview Structure

The three stars \*\*\* mean that the information is too delicate to be published and is therefore removed.

Haastattelurunko

PVM: \_\_\_\_\_

**Kerrotaan mistä kyse & näytetään demo**

- Yrityksen nimi \_\_\_\_\_
- Yrityksen toimiala \_\_\_\_\_
- Koko (tt määrä) \_\_\_\_\_

**Käymme nyt läpi olettamuksiamme siitä, mitä tulisi seurata/mitä seurataan tuotannossa/työnkulussa. Vastaa kysymyksiimme arvoasteikolla 1-5 (1 ei lainkaan tärkeä, 5 todella tärkeä), miten koet asian.**

**Tehokkaaseen työnkulkuun liittyvät asiat:**

### 1. Huomiot tai ohjeet (esim. vuorojen välillä tai vaikka ei vuoroja ole niin muille työntekijöille)

- 1.1. Kuinka tärkeää sitä on seurata?
- 1.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

- 1.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?
- 1.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

### 2. Laatupoikkeamat (työnjälki, työntulos, tuotteen laatu)

- 2.1. Kuinka tärkeää sitä on seurata?
- 2.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

- 2.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?
- 2.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

### 3. Tehtävien hallinta (to-do tehtävälistan hallinta, esim. esimiehen tai toisen vuoron luoma tehtävä)

3.1. Kuinka tärkeää sitä on seurata?

3.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

3.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?

3.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

#### 4. Kehitysideat

4.1. Kuinka tärkeää sitä on seurata?

4.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

4.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?

4.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

#### 5. Vaaratilanteet

5.1. Kuinka tärkeää sitä on seurata?

5.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

5.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?

5.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

#### 6. Ongelmatilanteet

6.1. Kuinka tärkeää sitä on seurata?

6.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_
- jokin muu ratkaisu, mikä? \_\_\_\_\_

6.3. Kuinka hyvin käyttämänne menetelmä toimii tällä hetkellä?

6.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

#### 7. Aikataulumuutokset

7.1. Kuinka tärkeää sitä on seurata?

7.2. Miten näiden kirjaus ja tiedotus teillä nyt hoidetaan?

- paperilapuilla, soittamalla, sms, sähköposti, fläppitaulu
- toiminnanohjausjärjestelmä, mikä? \_\_\_\_\_

- jokin muu ratkaisu, mikä? \_\_\_\_\_

7.3. Kuinka hyvin käyttämäne menetelmä toimii tällä hetkellä?

7.4. Koetko, että yrityksessänne voitaisiin tehdä tämä paremmin? Miten?

**8. Mitä muita asioita mielestäsi toiminnassanne on tai olisi syytä seurata? (Tarkennusta tarvittaessa → Vuorotyössä / Tuotannossa)**

**9. Onko työntekijällä (sinulla) mahdollisuutta kirjata edellä mainittuja asioita? Miten?**

**9.1. Onko sinulla töissä käytössä/helppo pääsy:**

- älypuhelin
- tablet
- tietokone

**10. Miten arvioisit esitetyn kaltaisen ratkaisun mahdollisia hyötyjä omassa toiminnassanne vai onko hyötyä? (avoin)**

\*\*\*

Kustannussäästöt, työtyytyväisyys paranee, asiakastyytyväisyys paranee, lisämyynti paranee

MITÄ MUITA HYÖTYJÄ NÄET JA NIIDEN TÄRKEYS (1-5)?

**11. Miltä tällainen ratkaisu vaikuttaa? (avoin ja arvosana 1-5)**

**12. Voisitko harkita tällaisen ratkaisun hankintaa? (Pyydämmekö Netwellin olemaan yhteydessä teihin?)**

**13. Mikä on seuraavien ominaisuuksien painoarvo ratkaisun hankinnassa?**

(1 ei lainkaan tärkeä - 5 hyvin tärkeä)

\*\*\*

**13.1. Mitkä muut asiat olisivat tärkeitä ratkaisun hankintaa harkittaessa? (avoin)**

**14. Muuta mainittavaa tai kysyttävää?**

**15. Haastateltavan taustatiedot**

- Haastateltavan nimi ja toimenkuva \_\_\_\_\_
  - Jos työnjohto, montako alaista? \_\_\_\_\_
- Sukupuoli \_\_\_\_\_
- Ikä: - 20, 20-30, 30-40, 40-50, 50+
- Millainen on työaikasi? \_\_\_\_\_
- Ovatko työtehtävät:
  - tiimihenkisiä
  - itsenäisiä
  - sekä että
  - joku muu, mikä? \_\_\_\_\_

## Appendix 2: Transcribed interview (example)

The three stars \*\*\* mean that the information is too delicate to be published and is therefore removed.

Transcribed interview

Company: \*\*\*

Date: \*\*\*

Employee: \*\*\*

Duration: 25:30 min

A2: Elikkä tiedätkö sä yhtään mistä on tarkalleen ottaen kyse..että?

B: No een ... en todellakaan. Teillä on joku lopputyö, mitä te.....

A1: Joo.. Me tehdään lopputyötä ja meillä on toimeksiantajana tällainen jyvaskyläläinen ohjelmistoalan yritys, semmoinen ku Netwell... heillä on kehitteillä tällainen ohjelmistoratkaisu, jonka tarkoituksena on parantaa yrityksen sisäistä kommunikaatiota, eli tiedonkulkua. Ja tämän näköinen on tämä heidän demo versionsa tästä..

B: Joo..

A1: (Selittää järjestelmästä)\*\*\*mutta tämä on lyhykäisyydessään tämä ohjelman idea...

B: Joo.. olisi varmana huoltoyhtiöille hirveen kätevä..

A1: mmhmm..

A2: Tota.. tossa on sulle tuollainen arvoasteikko, sitä pidetään siinä muistisääntönä... eli me pyydetään muutamaa kohtaan tollainen...

A1: ..arvosana. Ja tota tässä on sitten tällainen lista...

B: Ai, ai... kun minä näen vähän huonosti.

(Yhteistä naurahtelua)

A2: ai jaa.. no mut me voidaan vaikka sit lukee...

A1: elikkä siinä on nyt sitten olettamuksia, meidän mukaan siitä, että mitä pitäisi tuotannossa tai työnkulussa seurata... ja tota siinä on ensimmäisenä nyt huomiot tai ohjeet.. elikkä vaikka vuorojen välillä, tai sit jos ei vuoroja ole, niin muille työntekijöille.. Eli just semmosia että nyt huomasi tällaisen jutun, että tää olisi hyvä kaikkien tietää. Niin kuinka tärkeä tällaisia asioita on sun mielestäsi seurata, ykkösestä vitoseen?

A2: niin viisi on se tärkein..

B: No tota kyllä tää mun mielestäni ainakin nelonen on..

A1: Joo.. miten niitä teillä tällä hetkellä seurataan?

B: tällä hetkellä?

A1: niin.. vai kirjataanko niitä ylös, vai meneekö se suullisena se tieto?



B: tota.. se ei oikeastaan meillä mene sillein niin.. mä en oikein osaa vastata tohon...

A2: Missä.. tota.. missä työtehtävissä sinä itse olet?

B: no mä olen tuolla pienurakkapuolella. kautta vuosikorjauksissa.. eli siis pienurakkapuolella tällä hetkellä.

A2: Miten teillä hoidetaan noi?

B: siis toi tiedonk... toi?

A2: Siis tällaiset huomiot tai ohjeet..?

A1: että siis jos sulle tulee sellainen tilanne, että hei.. tällä on tällainen juttu, tää olisi hyvä kertoa työkavereillekin.. meneekö se tieto siis suullisena, vai?

B: No suullisena, joo...

A1: okei. Koetko että tää toimii hyvin tää tällaisena suullisena tiedonvälityksenä tää...

B: No ei se kyllä aina toimi.. elikkä.. että ei

A1: Minkä arvosanan antaisit, jos vitonen on todella hyvin ja ykkönen ei ollenkaan?

B: No sanotaanko, että kolmonen eli aika neutraali..

A1: Osaatko siihen ehdottaa jotain parannusehdotuksia?

A2: Millä sitä voisi parantaa?

B: No kyllä mä sanoisin että sellaisia viikko palavereita ja tota kommunikaation parannusta..

mutta toihan olisi parannus tollainen.. mutta eihän meillä ole työnpuolesta tollaisia...

A1: Mutta näät että tämmöinen ohjelma voisi olla hyödyksi tämmöiseen?

B: Ois ehdottomasti joo! .. mutta sehän vaatii, että olisi nuo... (osoittaa iPadia)

A1: ... laitteet.. niin. Tuota sillä on sitten...

B: Niin ja onhan siinä sitten sekin, että pitää noita osata vielä käyttääkin.. (nauraa..)

A1: Joo.. se auttaa tietysti sitä.. tottakai!!

A1: Okei.. meillä on siellä sitten seuraavana kohtana laatupoikkeamat, että siis työn jäljessä, työn tuloksessa tai tuotteen laadussa, kuinka tärkeä niitä on sun mielestä seurata?

B: No mun mielestä se on erittäin tärkeä asia.

A1: joo.. miten niitä teillä tällä hetkellä seurataan?

B: No ite asiassa, meillehän palautus tulee hyvinkin äkkiä, kun me tehdään asiakkaalle.. niin se tulee asiakkaalta sitten...

A1: ... niin se tulee suoraan asiakkaalta?

B: ...niin siis silleihän se palaute toimii..

A2: Tuleeko se palaute suoraan asiakkaalta teille itselle, siis työntekijöille?

B: No ei.. siis joo.. aika paljonhan sitä nykyään tulee suoraan meillekin, mutta sen kyllä pitäisi kiertää esimiehen/mestareiden kautta.. Meillä on sellaisia pitkäaikaisia kumppaneita, jotka suoraan viestittää meille, jos jotain on huonosti..

A1: Okei.. teillä ei ole mitään.. sellaista laadunvalvontaa

B: Ei meillä ole. Mä luulen että uudisrakennuksen puolella saattaa hyvinkin olla..

A1: okei.. kuinka hyvin tää sun mielestä toimii tää asiakaslähtöinen palaute.. asiakkaalta tulee suoraan se palaute niistä laatupoikkeamista se...?

B: No kyllähän se toimii.. koska maksaja ei ole tyytyväinen, niin ei se oikein muualta voi tullakaan se palaute.. (yhteistä naurahtelua)

A1: niin joo... totta joo.. näinähän se on. Oisko sulla tähän jotain parannusehdotuksia? ...voisiko siitä olla jotain hyötyä, että nämä kirjattaisi johonkin

ylös tai... ?

B: tota.. ei .. en mä oikeastaan usko.. että...

A1: niin, eli se toimii ihan hyvin tällaisenaan..

A1: Okei.. no niin sitten siellä on tehtävien hallinta. Elikkä esimerkiksi esimiehen tai toisen työntekijän luoma tehtävä, jollekin työntekijälle. Niin kuinka tärkeä sun mielestä on tehtävän hallintaa seurata?

B: Siis mä en .. siis miten tehtävän hallintaa ..siis tota..?

A1: Elikkä siis.. esimerkiksi kun täällä oli tää, että tänne voi lisätä jonkun tehtävän ja sitten kuitata sen kun.. tehdyksi...

B: Taikka kuitata niin, että se on jäänyt kesken ja toinen voisi jatkaa siitä sitten..?

A1: no esimekiksi..

B: No siis onhan se erittäin tärkeä!

A1: Miten teillä tämä...onko teillä joku ohjelma tähän tai?

B: Ei.. se menee ihan suun kautta.

A1: Suullisena sekin.. okei...

B: yleensä tehdään... tietysti jos joku vaikka sairastus, niin siinhän se ..ja siinhän tämmöinen olisi erittäin hyvä juttu, että jatkaa sitten...

A1: okei..

A2. Eli teillä on vähän semmonen että, sillä tekijällä itsellään on paljon sitä tietoa, joka ei sitten mihinkään jää...?

B: Kyllä..

A1: Toimiiko tää hyvin tällaisenaan tämä tehtävänhallinta?

B: No kyllä se tässä meidän hommassa toimii, kun tämä on niin pienimuotoista ja kaikki osaa oman hommansa..

A1: Eli kaikki tietää mistä työnsä aloittaa ja..

B: Joo..

A1: No sit siellä on keihytysideat seuraavana. Kuinka tärkeä sun mielestä on seurata keihytysideoita?

B: No...erittäin tärkeä.

A1: Miten teillä.. pystyykö työntekijät.. miten te voitteko te kirjata näitä johonkin tai meneekö ne sähköpostilla tai suullisena..?

B: No kyllä ne mun osaltani ainakin menee suullisena, kun ei tuota sähköpostia ole..

A1: Okei..Miten tää sun mielestä toimii, että menee suullisena?

B: no... mun mielestä se toimii pienellä porukalla aika hyvin..

A1: Koetko että.. voisi tulla enemmänkin niitä kehitysideoita, jos olisi tämmöinen järjestelmä johon niitä voisi käydä kirjaamassa?

B: No tottakai. Joo..

A1: Siitä voisi niinkun olla apua siinä... okei...

A1: No sit siellä on vaaratilanteet. Vaaratilanteiden seuraaminen onko kuinka tärkeä sun mielestä?

B: Ai niinku töissä?

A1: Kyllä, niin.

B: No kyllä minä aika tärkeänä pidän sitä...

A1: Onko se nelosen, vitosen paikkeilla?

B: No nelonen.

A1: Joo.. miten niitä teillä seurataan? Onko teillä jotain läheltäpiti- ilmoituksia..?

B: On joo. Niitä ilmoituksia pitää tehdä.. meillä tehdään niitä TR-mittauksia, vai mitä ne on..=

A2: TR-mittauksia?

B: niin.. tai siis en minä muista ihan tarkkaan että mitä ne oli..

A2: Tuota.. miten jos.. Miten sä teet tollaisen läheltäpiti-tilanteen.. jos sulla sattuu olemaan vaikka joku tilanne, että meinasin pudota tikkailta-tyylinen juttu, niin miten sä teet sen ilmoituksen siitä?

B: Ne tehdään paperilapulle ja annetaan esimiehelle.

A1: Eli se on joku tämmöinen ihan lomake?

B: Joo kyllä..siihen on ihan oma lomake

A1. okei..

A2. ja annetaan esimiehelle..

A1. toimiiko tää läheltäpiti-seuranta sun mielestä hyvin?

B: Toimii.. ehkä se tökkii pahiten täällä työntekijäpuolella..

A1: Niin justiin.. elikkä niitä ei sitten tehdä

B: No läheltäpiti-tilanteet on vähän niinkun

A2: mikä siinä sitten on se että.. mikä sen tekee vaikeeksi?

B: Mä luulen että sitä pidetään vähän turhanpäiväsenä niinku työntekijäpuolella, mun mielestä siis..

A2: Okei...?

B: ethän sä hyvänen aika, vaikka jalka lipsahtaa tikkaalta, no sehän on läheltäpiti ja se pitäisi kirjata...

A1: niin se on vähän siinä, että missä se raja kulkee..

B: mmm.. nimenomaan justii.

A2: Okei..

A1: No sit siellä on ongelmatilanteet. Esimerkiksi jos on välineistön tai raaka-aineiden kanssa ongelmia tai on vaikka henkilöstöpuutoksia. Niin kuinka tärkeä ongelmatilanteita on sun mielestä seurata ja valvoa?

B: No.. kyllä se nyt nelonen on ainakin..

A1: Osaatko sanoa miten niitä teillä hoidetaan? Jos sulla tulee vaikka välineistön kanssa jotain ongelmia

B: No se kulkee vaan niin, että se ilmoitetaan esimiehelle ja..

A1: Ja esimies hoitaa sitten tällaiset asiat..

A2: Koetko että se toimii hyvin?

B: kyllä se tässä mittakaavassa toimii hyvin..meitä on niin vähän, että.. Must tuntuu että jos olisi isommassa mittakaavassa, niin sitten. Taikka jos ei tuntis jokainen toistaan..

A: Monta teitä on tässä nyt..?

B: Meitä on nyt neljä... \*\*\* (liian tunnistettavissa)\*\*\*

A1: Tuleeko sulle ongelmatilanteitten seurantaan liittyen jotain parannusehdotuksia? Voisko sitä tehostaa jotenkin tai..?

B: En mä oikein usko.. niin kauan, kun homma toimii esimiehen kanssa, niin tilanne on ihan ok...

A1: No sit siellä on aikataulumuutokset. Esimerkiksi joko teistä johtuvat tai sitten

asiakkaalta tulevia... Kuinka tärkeä niitä on seurata?

B: Siis miten niinku seurata..? Ai jos niinku aikataulut ei pidä paikkaansa vai?

A1: Niin, kyllä että miten siitä

B: No onhan se tärkeä seurata... siis todella tärkeää...

A1: Miten se hoituu? Tuleeko sekin suullisena tietona?

B: Joo tulee.

A1: Joo.. tuleeko sitten puhelimitse ihan?

B: No jos se on meistä riippuvainen, niin myös se ilmoitetaan asiakkaalle itse ihan. Tietenkin..

A1: Joo..

B: Kun meidän työhän on.. et me ollaan asiakka keskellä ihan tavallaan, ihan niinku..

A1: Okei.. toimiiks tää hyvin näin sun mielestä?

B: No toimii.. siis se on.. siis enhän mä sano, ettäkö jos olisi tällaiset tabletit ja muut, etteikö se toimis silloin paremmin, mutta eihän mulla ole siitä kokemusta, niin en voi tietää..

A1: Tottakai..

B: Jos olis tollainen, ja siellä olisi joku linkki ja sieltä asiakskin voisi katso, niin kyllähän se tottakai toimisi paremmin, EHKÄ sillein... kuitenkin.

A1: Niin justiin.. Tuleeko sulle mitään parannusehdotuksia, vai olisko se just se, että olis joku tämän tyylinen juttu käytössä?

B: No ois tietenkkin. Ja siis onhan se, jos nyt suoraan sanotaan, niin yleensä kun nämä on sana-suullisia juttuja, niin tostahan nyt sit jäisi mustaa valkosella...Niin sitten ei tarttis enää mututuntumalla puhua enää sitten siitä että mitä on sovittu. Että sinänsä niin.

A1: Tuleeko sulle mieleen jotain muita aisoita, mitä olisi tärkeä seurata sun työssä, muuta kun näitä listassa olevia asioita?

B: Noh... kyllähän laadun valvontaa ja ja sellasita.. mut eihän se oikeestaan meidän puolelle liity, se on enemmän tota \*\*\*puolen juttuja....

A1: okei..

A1: No äsken tossa jo tätä vähän katottiin, eli teillä ei ole tossa teidän puolella käytössä tietokonetta?

B: Ei ole.

A2: Mutta puhelin on?

B: On joo.. mut sekin on ihan perus puhelin, et siinä ei oo mitään nettiä..

A1: Niin justiin...

A2: Normaali kännykkä..

B: hehee.. juu...

A1: No sitten.. täällä olis toinen listaus..

B: Ahaa..

A2: Nyt sä joudut lukemaan ne sieltä varmaan...

A1: Joo..käydään läpi.. elikkä tässä on nyt sellaisia etuja, mitä me ollaan ajatelutu, että tämän tyyllisestä ohjelmasta voisi olla juuri sen yrityksen kannalta.. Elikkä siellä on ensin kustannussäästöt..

kustannussäästöt \*\*\*

Nouseeko näistä sieltä jotain esiin, mikä olisi eritoten etuna?

\*\*\* Tämä väli haastattelusta sisältää liian spesifiä tietoa

A1: No sitten meillä on enää tällaisia taustatieto kysymyksiä..? Sanotko vielä sun nimen..?

B: \*\*\*\*\*

A1: ja työtehtävät oli \*\*\*?

B: Joo.

A2: Mikä sun työnimike olikaan?

B: Se on \*\*\*\*\*.

A2: Ja päivätyö...?

B: Joo..

A2: mites nuo työtehtävät.. onko ne itsenäisiä, tiimihenkisiä vai sekä että?

B: no sekä että.. pääsääntöisesti itsenäisiä, mutta porukassakin tehdään..

A1: Sitten meillä on vielä ikähaitarit.. mihin sut laitetaan täällä? 20-30, 30-40, 40-50, 50+?

B: no se on 40-50...

A1: joo.. Tuleekos sulle jotain muuta vielä kommentoitavaa tai kysyttävää tästä ohjelmasta tai...?

B: no ei oikeestaan.. ei tu okiseestaan.. mä oon niin huono noitten koneitten kanssa, oikeesti, että mä en osaa kun netissä pyöriä...

A2: Mites totaniin, jos sanot että olet huono,niin tuo kuitenkin vaikuttaisi helppokäyttöiseltä sulle?

B: joo.. varmaan.. joo.. Mä tiedän.. yksi työkaveri lähti tohon toiseen firmaan, ja niille tulee sähköpostiin jopa työmääräykset, että niillä ei kännykkään tule. Mä luulen että tämä on tulevaisuutta ja varmaan meillekin tulee jossain vaiheessa..

A1: Niin.. tämän on sinänsä helppo, että monet esim käyttää facebookkia, et toi on toimintaperiaatteella.. \*\*\*\*

B: Niin siis.. kun sinnehän tulee kaikki... kun meille tulee kaikki työmääräimet ja työnumerot puhelimitse... siinä toi olis hyvä.. Kun me lähdetään tekemään työtä, niin me tarvitaan työnumero heti, kun lähdetään hakeen tavaroita, jotta ne menee sit oikein.. Niin siinä pitäisi olla sit tietty myös aktiivinen työnjohdon, jotta kaikki varmasti löytyy siltä..

A1: niin et sen pitäisi olla molemmin pulin aktiivista..

B: Niin... Mutta hyvänä pidän tätä kuitenkin. Sillä ihan käyttökokemuksiakin on sen kaverin kautta, niin okein hyvä juttu.. Vaikka eihän se tämä ole, mutta kuitenkin...

A2: NO niin.. se taisi olla siinä sitten... vielä kirjailin noita viimeisiä ylös, kun tuli niin hyviä juttuja...

B: ai joo..

A2: Niin että kiitoksia vain!

A1: kiitos!

B: kiitos.

## Appendix 3: Research plan

### Applying modern social network to working life - THE THESIS RESEARCH PLAN -

#### 1. Background - Opinnäytetyön lähtökohdat

The basis of our study is a co-operation with a local IT-company Netwell Oy. With our thesis we will be offering them added value by doing a research, that combines product development and market research of their newest product.

#### 2. Research questions and objectives - Tavoite

Our goal is to find out whether a modern social software can be applied to working life in order to improve work flow management in different business field areas. We will start by indentifying the areas that could be or need to be improved and move on to finding out if a certain software developed by Netwell can be of any help.

Research questions:

1. What are the areas of workflow in different business fields that need improving?
2. Could a modern social software be useful?

Our assumption is to come up with clear and logical findings throughout the research in order to help Netwell to proceed with developing the software and finding its target market.

#### 3. Method - Menetelmät ja aineisto

As our method we will be using qualitative data gathered by the researchers in a form of structured interviews done in different companies.

The structured interview will be formed according to the needs of Netwell Oy.

There will be 12 companies, with 6 different business fields. From every company we will be interviewing 2 people - one from supervisory level and one employee in order to get different points of view on the subject.

The companies are chosen according to the location, size, business field and interest to Netwell Oy. We have also taken into account a pre-assumption on what sort of companies might be the market to the software.

#### 4. Timescale - Aikataulu

12.10

→ First meeting

16.10

→ Starting the project

Weeks 42-43 (15.10 - 26.10)

- choosing the business fields and companies to be interviewed
- sketching the interview structure
- doing test interviews

Week 44 (29.10-02.11)

- Making a phone call script which will be used when booking the interviews
- Booking the interviews and finalising the interview

Weeks 45-48 marraskuu (5.11-30.11)

- Interviewing 12 companies (two persons/company)

Weeks 47-50 marras-joulukuu (19.11-14.12)

- Analysing the results (qualitative and quantitative conclusion and tabulation)

Week 50 joulukuu (10.12-14.12)

- Presenting the results
- Representatives of both JAMK and Netwell are present  
(Exact date to be confirmed 3rd of December)

Week 51 (17.12-21.12)

- Language check

Week 2. (7.1)

- Submitting the thesis

## **5. Resoruces - Resurssit**

The resources needed are phone, car & bus card. We have agreed with Netwell Oy, that they will take care of all the possible expenses related to the study.

## **6. Table of Contents - Sisällysluettelo**

- Background and objectives
- Research methods used
- The theoretical framework
- Doing the research - collecting data
- Data analysis
- The study outcome
- References & Attachments

## **7. References - Lähteet**

Management  
 Knowledge management  
 Workflow management  
 Knowledge sharing  
 Communication  
 Current situation of the modern social tools in working life





## Appendix 4: Call script

### VAIHTOEHTO A

“Tässä Maija Meikäläinen, hyvää päivää! Olen opiskelijana Jyväskylän ammattikorkeakoulussa ja tekemässä lopputyötäni erittäin mielenkiintoiseen aiheeseen liittyen. Tutkimuksessa on tarkoitus selvittää, kuinka yritykset voivat tehostaa toimintaansa hyödyntämällä sosiaalisia ohjelmistoja työnkulun seurannassa ja hallinnassa. Tutkimuksessa haastatellaan Keski-Suomen alueen erilaisten yritysten edustajia ja haastattelut on täysin luottamuksellisia. Voisimmeko tulla tapaamaan teitä haastattelun merkeissä? Siitä minulle iso apu ja siitä ei tule teille mitään kustannuksia mutta voitte saada hyviä ajatuksia ja ideoita jatkoa ajatellen. Kun tutkimus on valmis, yrityksenne saa siitä yhteenvedon opinnäytetyömme muodossa. Milloin teille sopisi tapaaminen?”

### VAIHTOEHTO B

“Tässä Maija Meikäläinen, hyvää päivää! Olen opiskelijana Jyväskylän ammattikorkeakoulussa ja tekemässä lopputyötäni liittyen työn tehostamiseen moderneilla sosiaalisilla ohjelmistoratkaisuilla.. Kuka mahtaisi teidän yrityksessänne vastata tällaisista asioista? Tarkoituksena on haastatella työnjohto- ja työntekijäporrasta.”