

Process: A Case Study of Development and Reengineering of an Absence and Leave Management Process

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Abstract

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The purpose of this thesis was to develop, re-engineer and improve the case company's Absence and Leave Management Processes by applying business process improvement and business process re-engineering and design methodologies.

The data for the theoretical study was collected through relevant literature for the topic. The main focus was business process improvement and business process re-engineering of administrational processes. The empirical study was based on the case company's existing Absence and Leave Management Process. A significant part of the data for the empirical study was gathered by interviewing the key persons involved in the process.

The results of this thesis shows how the Absence and Leave Management Process at the case company was developed, re-engineered and improved in order to establish better efficiency, accountability and consistency within the organization. The results from the Process Designing was used for the development of the company's own WTR System both as a product of the company and as a tool to support the Absence and Leave Management Process. The results also show how this was done through process improvement and process re-engineering methods and tools included in the theoretical study. Furthermore, the result chapter describes the possibility for continuous improvement.

Keywords: Business Process Improvement, Business Process Re-engineering, Business Processes, Business Process Design, Administrational Processes, System Requirement Analysis

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1 Introduction

1.1 Background to the thesis

This chapter will focus on the background to this thesis. At the time when starting the thesis, the author had been employed by the company for approximately three years. At the beginning of the author's own employment for the company it had been in business for five years and had 11-12 employees (numbers based on own passive observation). The company was a typical start-up company with a clear lack of business processes and administrational processes. As the company grew and expanded, more developments were made to the internal processes, but in an unofficial manner. No processes were standardized or regulated properly.

When starting the thesis (October, 2015) the company had 36 employees and one subcontractor. Two of the 36 employees are based in the office located in Stockholm, Sweden. The remaining 34 employees are based in the office located in Espoo, Finland. (Interviewee 1)

Due to the clear lack of standardized and regulated business processes and administrational processes there have been challenges in the administrational work. The main target of the thesis implementation was to make improvements to an already existing administrational business process and to develop and improve the Process by applying the theories described in chapters 4 and 5.

1.2 Objectives and Restrictions for the thesis

The main objectives of this thesis is to develop and improve the specified administrational business process, to create functional documentation for the set process, to implement the process before set deadline, and to overall deliver a well-made functioning project/solution/suggestion for the company. Another objective for the thesis is to through the developed processes establish better efficiency, responsibility and consistency within the organization.

During the course of the thesis a third research question was added. The objective for that part of the thesis is to identify the requirements of the company's own software that supports the Absence and Leave Management Process.

A restriction for the thesis is that there are only two key persons to interview during the data gathering due to the size and organizational structure of the company.

The main research questions for the thesis are:

- 1. What are the problems with the current Absence and Leave Management Process in the company?
- 2. How can the Absence and Leave Management Process in the company be improved and developed?
- 3. What are the requirements of the software that supports the redesigned Absence and Leave Management Process?

1.3 Structure of the thesis

The structure of the thesis is meant to be easy to follow. The different stages of the thesis will be gone through and illustrated according to mainly the process improvement and process re-engineering methodologies.

The thesis consists of seven main chapters: Introduction, Case Company, Methodology, Business Process Design and Re-design, business process improvement, Improvement and Reengineering of the Absence and Leave Management Process, as well as Recommendations and Conclusions followed by References, Illustrations, Tables, Abbreviations and Terms, and Appendices.

Chapter one includes the introduction and a general description of the thesis while mentioning what the theoretical and the empirical framework is based on, the background to the thesis, the starting point of the thesis, the position that the company was at when the thesis started, the main targets of the thesis implementation, the main objectives for the thesis as well as the intermediate objectives and the research questions for the thesis, followed by a description of the structure of the thesis with introductions to the overall content of each chapter.

Chapter two tells about the case company by bringing up the locations, working language, the branch company, the company's main focus, organizational structure, its beneficiaries, main products, as well as ISO certificates and awards. Chapter two also brings up the Development needs for Absence and Leave Management Process

Chapter three presents the methodology of the thesis which are Semi-structured Interviews, Analysis of Qualitative Interview Data, Participant Observation and system requirement analysis. Chapter three describes different kinds of data gathering and analyzing methods and justifies the selected methods for this thesis.

Chapter four includes descriptions of business process re-engineering and some business process re-engineering methods. Chapter four also tells about the criteria for the selected methods to use in this thesis.

Chapter five describes the main theoretical background for the thesis starting with a description of the business process improvement theory and definitions of a business process, as well as three terms that one has to understand in order to understand process improvement. In addition to that the chapter brings up the relationship between process improvement and the PDCA cycle before describing in detail the Six Phases of Process Improvement and the theory behind them. The chapter then finishes with showing the process improvement symbols that should be used when visualizing a Process.

Chapter six "Improvement and Re-engineering of the Absence and Leave Management Process" goes through the methods used for this thesis and the analysis of each interview that was conducted for the thesis, as well as the actual implementation of the Theories and methods by going through each process improvement Phase of the Project with detailed descriptions of all the steps that were taken by the Author and the Process Improvement Team from the starting point until the end. Also the business process re-engineering methods used in this thesis are described. The last part of the sixth chapter is called "Requirements for the development of the WTR System", it brings up the results that were found to answer the third research question for this thesis.

Chapter seven is the "Trustworthiness, Conclusions and Recommendations" chapter of the thesis. This chapter discusses the validity and reliability of the thesis, as well as discussing the possible continuous improvement after the end of this thesis. Chapter seven is followed by the literature that was used as source material for the thesis, the Illustrations, the Tables, Abbreviations and Terms, and the Appendices.

2 Case Company

2.1 Case Company Introduction

In4mo Oy is a Finnish Information Technology company with offices located both in Espoo (Finland) and in Stockholm (Sweden). In4mo Oy was established in the second half of year 2007, and has been growing rapidly ever since due to its close cooperation with its customers, its continuous high level of service, and great deal of attention to detail, innovation and simplicity in its products. In4mo Oy has a Swedish Branch company called "In4mo Filial i Sverige" that was created in year 2012. The official working language of In4mo Oy is English, and the workforce consists of around 40 employees. In4mo Oy will be referred to as "the company".

The company focuses on needs of Nordic Insurance Companies and their partners such as Drying and Construction Companies. The main products that the company offers to its customers are Mobile Multimedia Reporting solutions in Software-as-a-Service format for Damage Claim Handling Processes, but new solutions and features are continuously created. Amongst other things the products offer fast compensation decisions for Property Damage Claims and efficient access to the progress of the repair work. The biggest beneficiaries of the company's innovation are always the insurance holders.

The company has a functional organization structure with a Board of Directors (consisting of five members) at the top of the structure, a CEO and a number of managers responsible for different departments and teams. The company puts a great deal of focus on team work and a pleasant working environment, and believes that diversity and fairness is the key to better innovation.

Being ISO 27001:2005 Certified the company considers data security in every step of its design. In 2012 the company won the Uudenmaan InnoSuomi competition, and in 2014 Kauppalehti named the company as one of the fastest growing companies in Finland. (In4mo Oy's website)

2.2 Development needs for Absence and Leave Management Process

The administrational business process to be developed in this thesis is the Absence and Leave Management Process for the applying for, approving, monitoring and reporting of days off from work. The term 'days off' refers to annual vacation days, unpaid leave, overtime hours and other leaves recognized by Finnish law, the collective agreement and the company.

After interviewing two persons from the Process Improvement Team created for this thesis these development needs were defined:

- There might be a need for a software
- Better structure and overview for both management, managers and employees
- Increased accountability for both managers and employees

(Interviewee 1 & 2)

3 Methodology

3.1 Semi-structured Interviews

In his book about interview techniques Wilson (2013) describes semi-structured interviews as a combination of structured interviews and unstructured interviews, where predefined questions are used but also open-ended explorations are welcome.

In semi-structured interviews the interviewers often follow a document called "Interview Guide" where e.g. introduction to the topic, a list of questions or suggested probes and prompts are listed. (Wilson 2013)

Semi-structured interviews allow both closed-ended and open-ended questions, and is used to gather facts, data, opinions and attitudes, as well as understanding user goals. Semi-structured interviews can also be used to gather information on tasks and task flow. (Wilson 2013)

In this thesis semi-structured interviewing was the most suitable interview technique since there needed to be a list of questions, but the questions needed to be open-ended in order to find out information about the current Absence and Leave Management Process as well as understanding the customer wishes. This interview technique suited also the restrictions of this thesis since there were only two key persons to interview.

3.2 Analyzing Qualitative Interview Data

In this thesis, analyzing qualitative interview data or the simpler term "interview analysis" refers to a form of qualitative research that emphasizes words and verbal descriptions more than analysis of data. (Hammersley 2012)

The data collected through the interviews conducted during the course of this thesis will be analyzed through the discourse analytic method, which analyzes the interviews as social texts. (Talja. No date) This data collection method suits this thesis the best due to the fact that the improvements and re-engineering of the Absence and Leave Management Process is supposed to be based mainly on the "customer wishes" (wishes of the management of the company).

3.3 Participant Observation

In this thesis, the term participant observation refers to a form of qualitative research that emphasizes observing selected details in the environment in question. When conducting participant observation, it's essential that the researcher immerses himself/herself into the community and use his/her senses to interpret and describe the situation. (Damm 2012) Due to the fact that both before and while writing the thesis the author herself is involved in the Absence and Leave Management Process the data collection method participant observation is one of the selected data collection methods for the thesis.

3.4 System Requirement Analysis

System requirement analysis is a method used most commonly in Information Technology and Software Development to understand the requirements and the targets for executing the design of a solution. The requirements are part of satisfying the customer needs for the solution or system, and are also an important part of defining the attributes for the system development. (Grady 2010)

The Process of system development begins with defined the customer need (Grady 2010). In order to understand the customer need and expectations some information gathering is needed, this can happen through engaging the customer in a discussion. (Grady 2010)

In this thesis the requirement analysis was done through analyzing the data gathered during the discussions that happened in the interviews and meetings during the course of the thesis. System Requirement Analysis was needed in order for the company to use the information gathered for the improvement of the Absence and Leave Management Process for their own WTR System.

4 Business Process Design & Reengineering

4.1 Business Process Re-engineering

Business Process Re-engineering (BPR) was first presented formally in year 1990 in Michael Hammer's article "Reengineering Work: Don't Automate, Obliterate" in Harvard Business Review where Hammer defined business process re-engineering as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed". (Chen. No date)

Only a few years later, in his article "AI in Business-Process Reengineering" Hamscher (1994) defines business process re-engineering as a general term for a number of perspectives on the

ways to change organizations. Hamscher (1994) also states that practically any organization can be seen as a collection of processes that invents, produces, delivers and bills the customer for goods and services. Naturally there is variation to this, depending on the type of business, but the essence of business process re-engineering is seeing an organization as "a collection of customer-driven processes". (Hamscher 1994)

Chen (no date) points out that the key to business process re-engineering is looking at business processes from the very beginning and from that decide the best ways for an organization to rebuild the Processes in question in order to improve their performance. (Chen. No date)

Using business process re-engineering does not guarantee success. Chen (No date) estimates that the failure rate is 50-70% amongst business process re-engineering projects. Failure in this case means that the project resulted in no significant benefits or no success in the efforts made during the project. In order to succeed with business process re-engineering the project it should be done in a rational and systematic way. (Chen. No date)

In addition, strong support from the upper management is needed. Without the support from the upper management the success of the process re-engineering can't be guaranteed. (Chen. No date)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Team alignment	Process diagnosis	Process redesign	Implementa- tion	
Identify core process	Evaluate core process	Design process	Implementa- tion	
Develop vision and process objective	Assign project manager	Evaluate current process	Apply information technology	Design and develop process
Vision	Kickoff	Diagnosis	Redesign	Implemen- tation and evaluation
Preparation	Identification	Vision	Planning	Conversion
SWOT analysis	Critical suc- cess factors	Strategy	Process definition and design	Competi- tiveness design
Customer requirements	Analyze process	Bench- marking	Design process	Implemen- tation and evaluation
Target/KPI setting	Project kickoff	Process diagnosis	Process redesign	Implemen- tation and evaluation
BPR team formation	Project kickoff	Process design	Integration	Evaluation
Set goal	Brain- storming	Evaluate process	Design process	Implement

Figure 1: Typical phases in a Business Process Re-engineering Project (Chen. No date)

4.2 Business Process Modeling

Hamscher (1994) states that a big part of business process design is Business Processes Modeling, which consists of tools for evaluating

As mentioned by Kueng (2005) in his paper Expert View in the Business Process Management Journal when improving a business process one should ask the process owner what goals the business process in question should meet. The Process owner will mention a number of goals to be met and maybe also some main stakeholders. Different stakeholders might want to meet different goals and sub-goals. (Kueng 2005)

Kueng (2005) states that once a Business Process Model is built some kind of IT system needs to be set up to support the Business Process Model and its execution. (Kueng 2005)

Kueng (2005) has created the following figure and its steps in order to help with the goal focused Modeling of a business process:

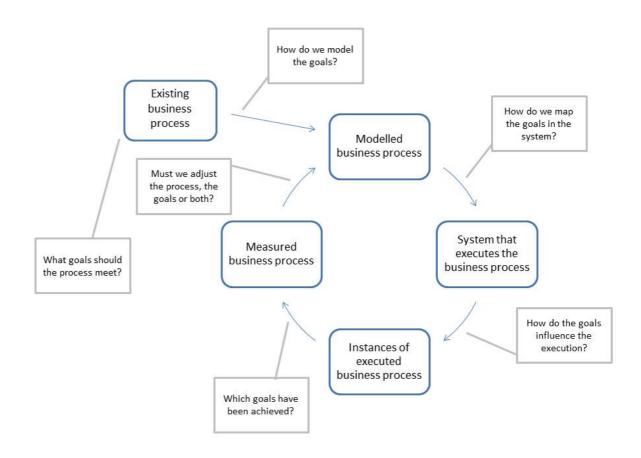


Figure 2: Round Trip of Business Process Goals (Bider & Johannesson. 2005)

No IT system will fully support a modeled business process, but after taking an IT system into use for supporting the business process the process owner may decide if the goals of the business process have been met or not and if any further changes have to be made. If modifications have to be made to the business process, the cycle starts again (see Figure 1). (Kueng 2005)

4.3 As-Is and To-Be Model Analysis

In his article A Strategy Driven Business Process Modeling Approach Nurcan (2005) explains how the development from an existing situation depicted in an as-is model to a new one depicted in the to-be model gives a good view of change handling. (Nurcan 2005)

4.4 Performance/Importance Matrix

Peppard & Rowland (1995) presents the Performance/Importance Matrix as a powerful tool for analyzing areas in a business process that needs improvement. The Performance/Importance Matrix can be used at all levels in an organization. (Peppard & Rowland 1995)

The Performance/Importance Matrix can show both the Process and the outcome of a Process, and portray how well the organization in question performs the Process or Process outcome or how important the Process or Process outcome is for the organization. (Peppard & Rowland 1995)

There are two scales on the Matrix; Importance and Performance, and the two scales are ranked on a 1-5 basis. This allows the items to be placed in one of the four quadrants:

- Concentrate here
- Keep Up the Good Work / Maintain Performance
- Not important /Low Priority
- Possible overkill

(Peppard & Rowland 1995)

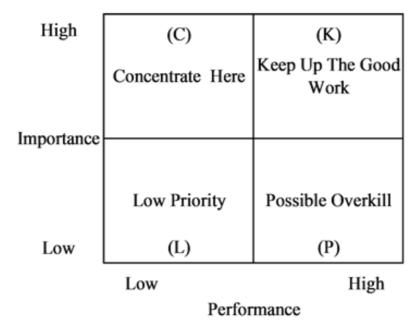


Figure 3: Performance/Importance Matrix (Peppard & Rowland 1995)

4.5 Selecting the methods (to use in this case)

4.5.1 As-Is and To-Be Model Analysis

The business process re-engineering method As-is and To-be Model Analysis was chosen for this thesis due to the benefits that could be drawn from it during the testing stage, as well as defining the differences between the original Absence and Leave Management Process and the later on improved and re-engineered Absence and Leave Management Process.

4.5.2 Performance/Importance Matrix

The business process re-engineering method Performance/Importance Matrix was chosen for this thesis for showing how well the different stages of the As-is Absence and Leave Management Process were being done before any improvements was done to the Process. This method was chosen also in order to show the difference between the As-is state and the To-be state during the testing stage.

5 Business Process Improvement

5.1 Description of Business Process Improvement

Based on their definition of a business process King, J., King, F., and Davis, M. thus defines business process improvement as following: "process improvement is a systematic approach to realign (focus, measure and redesign) critical Organizational Processes to achieve breakthrough improvements". In order to understand what process improvement is, three terms need to be explained:

Critical Organizational Processes - A Critical Organizational Process is a process that is essential in order for the organization in question to be running. This can be for example human resources, management, billing, etc. (King, J. King, F., & Davis 2014)

Breakthrough Improvements - When improving a Critical Organizational Process the result is a Breakthrough Improvement if you achieve e.g. a rise in employee morale and performance of some kind, a significant decrease in business unit costs or more effective communication. (King et al. 2014)

Realignment - Realignment is to focus, to measure and to redesign the one process that is causing the organization the most pain. (King et al. 2014)

In order to achieve successful process improvement the organization needs to focus and measure the critical processes, do the needed changes, and the involve Management. That's why the process improvement methodology is divided into six phases and each of those six phases is process-focused. (King et al. 2014)

5.2 Process Improvement and the PDCA cycle

There is a strong relationship between process improvement methodology and Dr. W. Edward Deming's PDCA cycle. PDCA means Plan-Do-Check-Act, and just like other studies the process improvement methodology starts with Planning. The planning happens in the first of the six phases of process improvement. The "Do"-part of the PDCA cycle happens in phase two, three and four of the six phases of process improvement. The Checking happens partly in phase fours, and the Act step is carried out in fifth phase of process improvement. The PDCA diagrams are usually drawn as a circle where arrows point from one element to the next and the arrow between Act and Plan can be considered as the sixth and final phase of process improvement which is called Continuous Improvement. Thus, the process improvement implementation methodology aligns with Dr. Deming's PDCA cycle's principles. (King et al. 2014)



Figure 4: Deming's PDCA cycle by King et al. (2014)

5.3 The Six Phases of Process Improvement

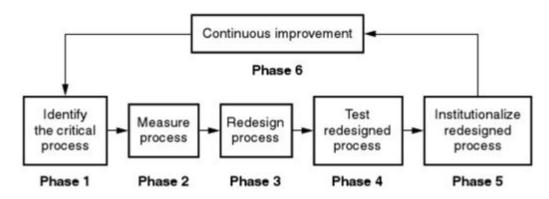


Figure 5: The Six Phases of Process Improvement by King et al. (2014)

5.3.1 Identifying the Critical Processes

The goal of the first one of the six phases of process improvement is to link the critical processes with the organizational pains expressed by the CEO of the company in question. After the most critical process or processes to be improved have been defined the boundaries of these critical processes needs to be set and a process improvement team consisting of no more than seven persons from the organization must be created.

During the beginning of the first phase a Work Plan should be created where the activities of the first phases should be listed among with the responsible person/persons for the set activities, and starting and ending dates. (King et al. 2014)

The name of the first phase "Identifying the Critical Processes" comes from identifying the process/processes to improve, establishing the process improvement team and the first Work Plan. The first phase is considered successful if the following goals are reached:

- the most critical process/processes are identified based on the pains
- the goals for the improvements are identified and set

When looking at the six phases of process improvement one will notice that they are listed in sequential order, but as stated by King et al. (2014) in reality several of the phases are likely to be carried out simultaneously during the course of the process improvement. (King et al. 2014)

5.3.2 Measuring the Processes

The second phase of the six phases of process improvement is where the current process/processes are assessed and evaluated. The goal of this phase is to measure "the voice of the process/processes" and to compare it to "the voice of the customers" (which is the internal customers or key persons). In the beginning of this phase the data on the current/existing process/processes is gathered to define the "as-is" condition. Internal key persons are interviewed and various tests are done (e.g. fishbone diagrams, pareto charts, etc. described in King et al. 2014) during this phase to gather information about the current process/processes and to identify the requirements. The process/processes can possibly be restricted by policies and work methods already existing in the organization. (King et al. 2014)

During this phase the critical process/processes is mapped and represented as a process chart or map in order to show the flow of data and material across the different parts of the process/processes. More information about visualizing the process is described in chapter 5.4 of this thesis. (King et al. 2014)

5.3.3 Redesigning the Processes

King et al. (2014) states that the third phase has three main parts to it; analysis, ideal state and to-be state. The goal of this phase is to analyze the data gathered from the interviews with the internal customers to the "as-is" process/processes to redesign the process/processes so that it matches both "the voice of the customer" and "the voice of the process". An ideal state is established from the analysis of the data, this state is also called the "to-be" state or "to-be" process/processes. How the ideal state can be reached is not important since the goal of the ideal state ("to-be" state) is to provide process improvement measures like e.g. yield or throughput. The process/processes are then redesigned to meet the requirements and the "to-be" state. (King et al. 2014)

During this phase a Testing Work Plan should be created. It's essential that this Testing Work Plan is created before giving the proposal to the management. King et al. (2014) states the importance of presenting the proposal to the management in a way so that the improvements can be translated into saving costs and improving the revenue. The third phase ends with the concurrence of the management. (King et al. 2014)

It should be noted that the first three of the six phases of process improvement represents as much as 90% of the whole workload of process improvement for the critical process/processes. (King et al. 2014)

5.3.4 Testing the Redesigned Processes

After the process/processes have been redesigned in the previous phase the redesigned process/processes are tested. The testing can happen through various resources and through a number of tools (e.g. fishbone diagrams, pareto charts, etc.), but the success of the testing is measured in e.g. throughput, yield, capability of process, or the effectiveness of equipment. In this phase also the satisfaction of the internal customers is measured, to make sure that this matches with the "voice of the process". (King et al. 2014)

Based on the results of the testing some modifications can be made to the redesigned process/processes. The last step of phase four is to make an introduction plan (rollout plan) for institutionalizing the redesigned process/processes. (King et al. 2014)

5.3.5 Institutionalizing the Redesigned Processes

The main goal of phase five of process improvement is to ensure the success of the redesigned process. During the course of phase five the lessons learned should be documented. If the improvements made to the process/processes require savings in the workforce there might be a need to create a personnel reallocation plan during this phase. (King et al. 2014)

To institutionalize a process means to fully implement the process that has been redesigned in phase three and tested in phase four. But just like phase four, this phase can involve some data collection to ensure that the process meets the internal customer requirements. To implement a redesigned process in an organization requires careful planning and involvement of the management and the process improvement team. Employees who are involved in the process in question might need training for the redesigned process before it's implemented in the organization. This training should be based on the rollout plan that was created in phase four. (King et al. 2014)

5.3.6 Continuous Improvement of Processes

The sixth and final phase of process improvement is all about making sure that the improvements continue and that all opportunities for new improvements to the process/processes are sought. An example of this can be e.g. to identify another process to improve and realign with the already improved process. (King et al. 2014)

5.4 Visualizing Process Improvement

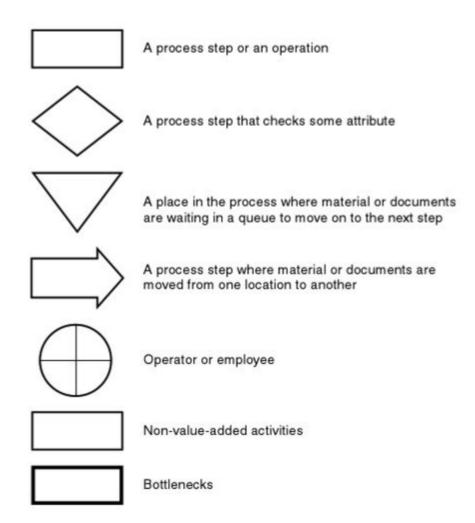


Figure 6: Process Improvement Symbols by King et al. (2014)

6 Improvement and Re-engineering of the Absence and Leave Management Process

6.1 Interview Analysis

When doing research and data collection for the Absence and Leave Management Process interviews were conducted with two key persons for the company's the management group. By doing this valuable information was gained for the thesis, it was an essential step to starting the thesis.

All interviews conducted where recorded in order to be able to give an exact portrait in the transcripts of everything that was said between interviewer and interviewee. The order in which the persons were interviewed does not reflect on the importance level of the interviews in question, they were scheduled according to the key persons' schedules and available time. The observations and conclusions made from the interviews have been reached by using open-ended questions and focusing on analyzing the words and verbal descriptions rather than data.

The questions used in the interviews are listed in Table 1. The "Interview Guide"/Questions can also be found in Appendices 1 and 2.

No	Interview Question	Interviewee
1	Please describe your role and responsibilities at In4mo Oy.	Both interviewees
2	How many employees are currently working for In4mo Oy?	Interviewee 1
3	In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?	Both interviewees
4	What kind of Absence and Leave Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?	Both interviewees
5	In your opinion, what are the biggest problems or challenges with the current sys-tem/process?	Both interviewees
6	Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?	Both interviewees
7	What features are needed if In4mo Oy acquires such software?	Both interviewees
8	What kind of price limit would there be for such a software for In4mo Oy?	Both interviewees
9	Is there a deadline for implementing software for this process?	Both interviewees
10	Would a training session for the employees be needed?	Both interviewees
11	How would you like the documentation for the software to be?	Interviewee 1
12	What would be the main targets of taking such software into use at In4mo Oy?	Both interviewees

13	Do you have any certain expectations from the im-	Both interviewees
13	provements to this process?	Both interviewees

Table 1: Interview Questions

The first key person that was interviewed was Miika Toivonen, the Finance and Administration Manager at the company. The interview was held on Thursday 15th of October 2015 at 9:30 at a meeting room at the company's premises in Espoo. Mr. Toivonen has first-hand knowledge of how the processes in question have been organized and working before the thesis was started, and was possible to inform me of the wishes he has for the developments of the Absence and Leave Management Process (Interviewee 1)

The second key person that was interviewed was Kursat Inandik, the Managing Director / CEO of the company. The interview was held on Thursday 22nd of October 2015 at 9:30 at a meeting room at the company's premises in Espoo. (Interviewee 2)

Mr. Inandik has first-hand knowledge on how all processes overall were created at the company, since he is the founder of the company and has seen all changes and developments that have happened since the company was founded in 2007. (In4mo Oy's website and Interviewee 2)

6.1.1 Question 1

The first interview question was "Please describe your role and responsibilities at In4mo Oy". This question was posed to both interviewees.

Interviewee 1 gave a short description of his duties as the Finance and Administration Manager at the company (Interviewee 1). Interviewee 2 answered that he's the CEO of the company and the chairman of the board of directors, where after he gave a short description of what that implies (Interviewee 2).

6.1.2 Question 2

The second interview question was "How many employees are currently working for In4mo Oy?". This question was posed only to interviewee 1. Interviewee 1 mentioned the (at that time) current number of employees working at the company, but also mentioned that the number was about to rise during the upcoming month. (Interviewee 1)

6.1.3 Question 3

The third interview question was "In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?". This question was posed to both interviewees.

Interviewee 1 expressed that as a whole the administrational processes at the company could be better, but that there are some "paths" to follow at the moment (Interviewee 1). Interviewee 2 replied that there are no clear administrational processes at the company at the moment (of the interview), and that they could function better. (Interviewee 2)

6.1.4 Question 4

The fourth interview question was "What kind of Absence and Leave Management Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?". This question was posed to both interviewees.

Interviewee 1 replied that the Absence and Leave Management Process is currently (at the time of the interview) done through face-to-face meetings and emails between employees and their respective manager at the company. As the absence or leave is approved by the manager the information is shared with the persons responsible for keeping the records of the absences and leaves. (Interviewee 1)

Interviewee 2's answer was similar as the answer of Interviewee 1, except that Interviewee 2 mentioned that all absences, leaves and sick leaves are kept track of with an Excel file. (Interviewee 2)

6.1.5 Question 5

The fifth interview question was "In your opinion, what are the biggest problems or challenges with the current system/process?". This question was posed to both interviewees.

Interviewee 1 felt that the biggest problems and challenges with the current Absence and Leave Management system/process is that the records of it are kept in a simple Excel file, which isn't the most secure option. Interviewee 1 also expressed that it's a problem that the employees are not aware of all the principles regarding Absences and Leaves of different kinds. The third problem that Interviewee 1 brought up is the issues of employees not always informing the people responsible for keeping track of the Absences and Leaves of their approved Absences, which can make the records that are kept either out-of-date or incorrect. (Interviewee 1)

Interviewee 2 expressed that it's a big problem that mistakes still happens with the records of the Absences and Leaves of the employees at the company. Interviewee 2 feels that the Process is not working as it is. (Interviewee 2)

6.1.6 Question 6

The sixth interview question was "Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?". This question was posed to both interviewees.

Interviewee 1 expressed that the employees at the company would benefit from a system where they would have access to view the balance of their annual vacation days and leaves. Interviewee 1 believes that this would reduce problems such as the employees not being aware of their remaining annual vacation days. Interviewee 1 also brought up that the managers would through a software be able to have a view of which employees are currently absent and for how long the absence is planned to last. (Interviewee 1) Interviewee 2 feels that he himself would benefit of such a software since he would then be aware of the Absence and Leave situation. Interviewee 2 also brought up what Interviewee 1 mentioned regarding the benefits that the managers and the employees themselves would have of such a software being implemented. (Interviewee 2)

6.1.7 Question 7

The seventh interview question was "What features are needed if In4mo Oy acquires such software?". This question was posed to both interviewees.

Interviewee 1 expressed the need for more automated and real-time features in the Process. (Interviewee 1) Interviewee 2 replied that the software shouldn't be too expensive due to the low importance level of such a software for the Absence and Leave Management. Interviewee 2 mentioned that the Process can just as well be recorded through the already existing Excel file if the Process gets more structured. Interviewee 2 was open to implementing a software as long as the price would be reasonable. (Interviewee 2)

6.1.8 Question 8

The eighth interview question was "What kind of price limit would there be for such a software for In4mo Oy?". This question was posed to both interviewees.

Interviewee 1 felt that the company should be open to all options for differently priced software, that the decision should be based on the offered features and the benefits that the company would have of such features. (Interviewee 1) Interviewee 2 already answered this question in his answer for interview question 7. (Interviewee 2)

6.1.9 Question 9

The ninth interview question was "Is there a deadline for implementing software for this process?". This question was posed to both interviewees.

Interviewee 1 expressed clearly that he wishes for the software to be implemented for the Absence and Leave Management Process from the beginning of year 2016. (Interviewee 1) Interviewee 2 had the same answer as Interviewee 1 to this question. (Interviewee 2)

6.1.10 Question 10

The tenth interview question was "Would a training session for the employees be needed?". This question was posed to both interviewees.

Interviewee 1's answer was that he believes that there's a need for a training session for the employees in order for it to be clear for everyone. (Interviewee 1) Interviewee 2 expressed the need for a session with the employees of the company, where all aspects of the improved Process would be explained and discussed. (Interviewee 2)

6.1.11 Question 11

The eleventh interview question was "How would you like the documentation for the software to be?". This question was posed only to Interviewee 1.

Interviewee 1 expressed his wishes for the documentation to be short and simple for both managers and employees of the company. (Interviewee 1)

6.1.12 Question 12

The twelfth interview question was "What would be the main targets of taking such software into use at In4mo Oy?". This question was posed to both interviewees.

Interviewee 1' answered that he wishes for the whole Absence and Leave Management Process to be made more reliable and simpler. (Interviewee 1) Interviewee 2 sees the main target for taking a software into use to be that the numbers and the information for the whole process to be correct. (Interviewee 2)

6.1.13 Question 13

The thirteenth interview question was "Do you have any certain expectations from the improvements to this process?". This question was posed to both interviewees.

Interviewee 1 have the expectation that after the improvements and re-engineering of the process the Absence and Leave Management Process should be a professional level process. This expectation comes from the fact that the company is growing in a rapid speed and expanding, and will need a professional level process in order to handle the rapid growth. (Interviewee 1)

Interviewee 2's expectation is that the numbers should be correct after the improvement have been made to the Absence and Leave Management Process. (Interviewee 2)

6.2 Business Process Improvement & Re-engineering of Absence and Leave Management Process

King et al. (2014) states that in order to begin process improvement a first 90-day Work Plan must be created. Since this thesis also needs to follow the time schedule of the company the first Work Plan for this thesis will cover a time period that is slightly longer than 90 days, but will otherwise follow the guidelines of the process improvement methodology. (Appendix 16)

According to King et al. (2014) a Work Plan usually needs to be completed within 90 days or even less due to the fact that management can lose interest if no changes are accomplished within that time frame. The Work Plan needs to include the tasks, the starting and ending dates for each task, the person/persons that will be responsible for the task in question, and the disposition of the tasks. The Work Plan is meant to improve the team dynamics with its linked objectives, its deliverables and its time schedule.

The second Work Plan should be created for the test and institutionalize phases since several changes can be made before reaching those phases of the process improvement. (King et al. 2014)

Based on the process improvement methodology and the first meetings regarding this thesis the following first Work Plan was created:

		Start		
Tasks	Responsibility	date	End date	Disposition
Phase 1: Identify the critical process				
Identify the process to improve	CEO	Sept 9 2015	Sept 12 2015	
Identify process improvement goals	CEO	Sept 9 2015	Sept 12 2015	
Identify key persons	CEO and Mii- ka Toivonen	Sept 10 2015	Sept 12 2015	
Form Process Improvement team	Malena Nys- tröm	Sept 10 2015	Sept 14 2015	
Develop work plan and goals	Malena Nys- tröm	Sept 14 2015	Sept 30 2015	
Phase 2: Measure the process				
Gather existing data on the process	Team	Sept 10 2015	Dec 16 2015	
Review existing policies and procedures	Team	Sept 10 2015	Dec 16 2015	
Map the process	Malena Nys- tröm	Sept 10 2015	Dec 16 2015	
Develop requirements for process	Team	Sept 10 2015	Dec 16 2015	
Develop process time-frame	Team	Dec 1 2015	Dec 16 2015	
Phase 3: Redesign process				
Establish ideal and to-be states	Team	Sept 10 2015	Dec 16 2015	
Redesign process to confirm the to-be state	Malena Nys- tröm	Oct 1 2015	Jan 15 2016	
Quantify targets:				
Short term (one month)	Management	Dec 7 2015	Jan 15 2016	
Long term (one to three months)	Management	Dec 7 2015	Jan 15 2016	
Develop work plan to implement	Malena Nys- tröm	Dec 7 2015	Jan 15 2016	
Develop proposal to manage- ment	Malena Nys- tröm	Dec 7 2015	Dec 16 2015	

Present proposal to manage-	Malena Nys-	Dec 16	Dec 16	
ment	tröm	2015	2015	

(Appendix 6)

6.2.1 Identifying the Critical Process

As described by King et al. (2014) a Process Improvement Team should be formed. A Process Improvement Teams was formed in order to ensure the correct implementation of the Process Improvement Theory. King et al. (2014) states that a Process Improvement Team should consist of persons who are working with the Process daily, and that the team should consist of no more than seven persons in order to avoid difficulties in gaining consensus and completing the assignments. (King et al. 2014)

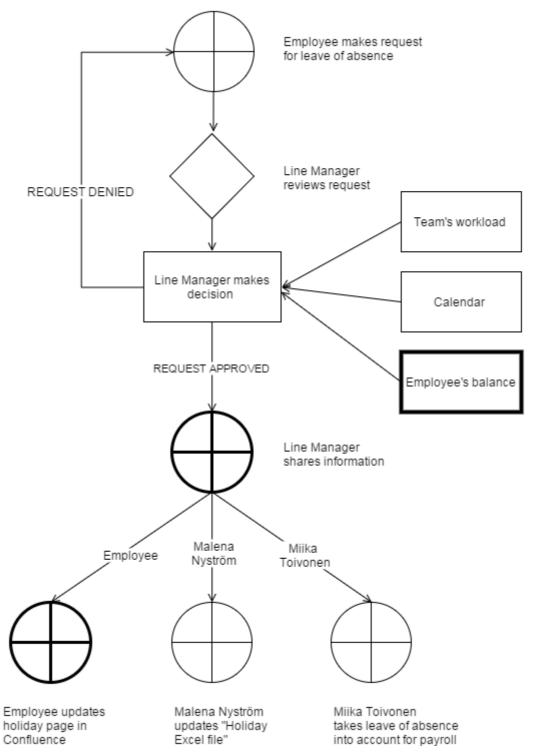
The process improvement team created for the Absence and Leave Management Process consists of Malena Nyström (the author), Kursat Inandik (CEO of the company), Miika Toivonen (Finance and Administration Manager) and Paul Susan (CTO of the company).

Identifying the main pains of the Absence and Leave Management Process began with interviews with the two key persons in the process improvement team for this Process; Miika Toivonen and Kursat Inandik. The interview questions were designed to get the most information about the problems that the key persons saw with the existing process and the wishes that they had for the improved Absence and Leave Management Process that would be improved and developed as a result from the thesis.

Research Method participant observation was used in order to observe and attain knowledge about the existing process and the problems that it had. During the author's three years as an employee working with Administration at the company the author had already observed and experienced first-hand how the process works and how it's used in practice by managers and employees at the company.

Based on the process improvement methodology and the data collected during the interviews and the meeting with the key persons / process improvement team a Process Chart of the existing Absence and Leave Management Process (also called as-is state) was drawn using the correct process improvement symbols described in King et al.'s book "Process Improvement Simplified". (King et al. 2014)

As mentioned by King et al. (2014) there are cases where no data collection is needed, based on the "voice of the customer". In the process in question there is no way to measure the data. (King et al. 2014)



Process Chart: Current Absence and Leave Management Process (Appendix 5)

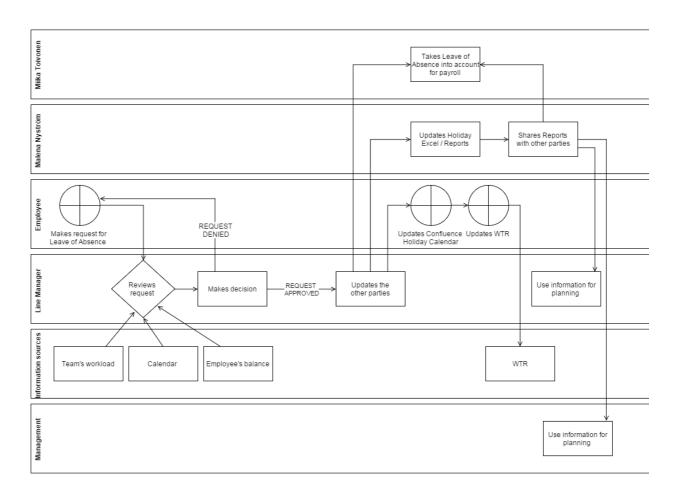
6.2.2 Redesigning the Absence and Leave Management Process

A discussion was held on Tuesday 1st of December 2015 with Kursat Inandik and Miika Toivonen where it was decided to have a meeting with Paul Susan, the CTO of the company, to dis-

cuss the Absence and Leave Management System options that were available. the company has been developing its own Work Time Reporting System for the customers of the company, and a discussion with Paul Susan was needed in order to assess the possibility to develop that system further in order to use it as the internal Absence and Leave Management System, or to buy licenses for an externally developed system.

As mentioned by Kueng (2005) about process re-engineering and IT systems: no IT system will fully support a Modeled Business Process, but after taking an IT system into use for supporting the business process the process owner may decide if the goals of the business process have been met or not and if any further changes have to be made. (Kueng 2005)

The meeting was scheduled for Friday 7th of December 2015 at 14:30 at the company's premises. During the meeting a conclusion was reached and it was decided that the company's own Work Time Reporting tool would be further developed and taken into use for the Absence and Leave reporting. The author was given admin access rights to the Work Time Reporting System (WTR) and was instructed to get familiar with the tools and based on that give feedback on features and details to develop further. Based on the discussion with the process improvement team during the meeting a To-be state Process Chart of the Absence & Leave Management Process was made.



1.1.2016-12.2.2016 Creation of vacation labels in WTR and testing of function

1.5.2.2015 --> Implementation of WTR as part of Absence and Leave Management Process

(Appendix 8: To-be state Process Chart of Absence & Leave Management Process)

(Appendix 10: Testing Work Plan)

A Testing Work Plan was created based on the process improvement theory.

Since strong support from the upper management is needed in order to succeed with business process re-engineering (Chen. No date), the suggestions for developing the Absence and Leave Management Process and the Testing Work Plan were presented to the management team at their monthly meeting on Wednesday 16th of December 2015 at 9:00. (For presentation slides, see Appendix 9: Presentation for management team on 16.12.2015)
All management team members except one were present. Feedback was given after the presentation, and we held a discussion about the Testing Work Plan for the Process. Concurrence of the management team was reached. Based on this discussion and the given feedback the induction plan in the next chapter was made.

6.2.3 Testing the Redesigned Absence and Leave Management Process

The to-be state of the Absence and Leave Management Process was tested through use of the WTR portal as a reporting tool for about a month in order to test the capability of the redesigned process. The results showed that the WTR portal functions to some level as absence reporting tool for the company and its employees.

In order to test the redesigned process an As-Is and To-Be Model Analysis and a Performance/Importance Matrix Analysis was made. These analyses are described in the two following chapters.

As seen in chapter 6.2.3.1 below an As-Is and To-Be Model Analysis was made for testing the redesigned process and compare it to the state the Absence and Leave Management Process was in before the start of this thesis.

No changes were made to the process during this stage of the process improvement based on the satisfaction of the process improvement team members. The satisfaction of the internal customers was measured already during phase 3 during the Management Meeting.

An Introduction Plan with the necessary tasks, the person/persons responsible for the tasks, the tasks starting dates and the tasks ending dates were created.

Table 2: Introduction Plan for improved Absence and Leave Management Process				
Tasks	Responsibility	Start Date	End Date	
Inform employees about the upcoming changes	Management	1.1.2016	_	
Send out email with information	Paul Susan	1.1.2016	_	
Enforcement by team leaders	Management	1.1.2016	29.2.2016	

Table 2: Introduction Plan for improved Absence and Leave Management Process

6.2.3.1 As-Is and To-Be Model Analysis

As-is Process

No	Process step	Responsible persons
1	Employee makes request for leave of absence	Employee
2	Line Manager reviews request	Manager
3	Line Manager makes decision	Manager

To-be Process

No	Process step	Responsible persons
1	Makes request for Leave of Absence	Employee
2	Reviews re- quest	Manager
3	Makes decision	Manager

4	Line Manager shares infor- mation	Manager
5	Employee up- dates holiday page in Conflu- ence	Employee
6	Malena Nyström updates "Holi- day excel file"	Malena Nys- tröm
7	Miika Toivonen takes leave of absence into account for pay- roll	Miika Toivo- nen

4	Updates the other parties	Manager
5	Takes Leave of Absence into account for payroll	Miika Toivo- nen
6	Updates Holi- day Excel / Re- ports	Malena Nys- tröm
7	Updates Con- fluence Holi- day Calendar	Employee
8	Updates WTR	Employee
9	Shares reports with other parties	Malena Nys- tröm
10	Use infor- mation for planning	Manager
11	Use infor- mation for planning	Management

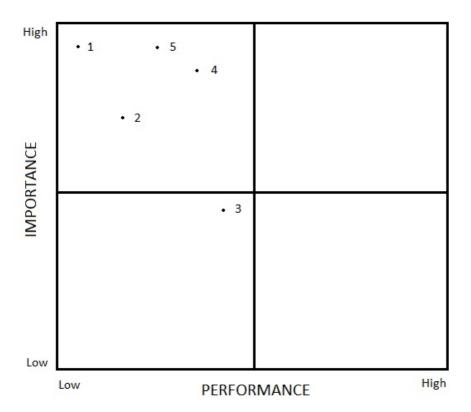
(Appendix 7: As-is and To-be Model Analysis)

The key differences between the As-is Process model and the To-be Process model is the clearer separation of responsible parties for each Process step, as well as the Management of the company being involved in the To-be Process. In the To-be Process the use of the WTR System is included as well as additional reports.

6.2.3.2 Performance/Importance Matrix

In order to test the Redesigned/Re-engineered Absence and Leave Management Process a Performance/Importance Matrix was drawn up for both the As-is Process and the To-be Process. This made it possible to see the clear differences between the two states of the Absence and Leave Management Process, and to make conclusions about what had been improved.

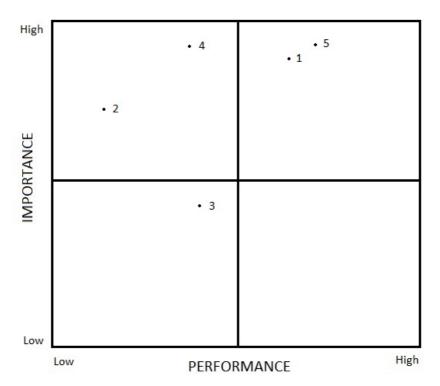
The information assessed in the Performance/Importance Matrix of the As-is Process is based on the information attained during the interviews analysed in chapter 6.1. As can be seen in the Performance/Importance Matrix below the points in need of most improvement is "Structure of the Process" and "Information Flow/Accountability".



Appendix 12: Performance/Importance Matrix As-Is Process

- 1. Structure of Process
- 2. Employees not aware of principles of Absences and Leaves
- 3. Employees not aware of remaining annual vacation days
- 4. Storage of records for Process
- 5. Information flow / Accountability

The information assessed in the Performance/Importance Matrix of the As-is Process is based on the feedback of the Management of the company, as well as the other testing done during this stage of the process improvement. As can be seen in the Performance/Importance Matrix below there are two points in the box of the Matrix with both high Importance and Performance. The two points still in need of improvement are "Storage of records for Process" and "Employees not aware of principles of Absences and Leaves".



Appendix 13: Performance/Importance Matrix To-Be Process

- 1. Structure of Process
- 2. Employees not aware of principles of Absences and Leaves
- 3. Employees not aware of remaining annual vacation days
- 4. Storage of records for Process
- 5. Information flow / Accountability

The conclusions that can be drawn from the Performance/Importance Matrix Analysis are that the two points with the greatest need of improvement from the As-is Process were improved in the To-be Process. The two points still in need of improvement are "Storage of records for Process" and "Employees not aware of principles of Absences and Leaves", but due to the fact that the Customer of the process improvement (the company) want to implement their own WTR system the point "Storage of records of Process" will remain a point to be improved in the future. The point "Employees not aware of principles of Absences and Leaves" could be improved through some additional efforts, but won't be improved at this stage.

6.2.4 Institutionalizing the Redesigned Absence and Leave Management Process

In order to institutionalize the Redesigned Absence and Leave Management Process in all parts/departments of the company the managers of the different teams and departments in were involved by enforcing the changes and improvements in their own teams. The CTO of

the company, Paul Susan, informed all employees in a text published in the company's internal weekly newsletter-email about the implementation of the improvements to the set Process.

No data collection was made during this stage of the process improvement, and no training was seen necessary before implementing the Process in the organization.

6.2.5 Requirements for the development of the WTR System

As already mentioned in the methodology chapter, in this thesis the Requirement Analysis was done through analyzing the data gathered during the discussions that happened in the interviews and meetings during the course of the thesis. System Requirement Analysis was needed in order for the company to use the information gathered for the improvement of the Absence and Leave Management Process for their own WTR System, and in order to use the WTR System to support the Absence and Leave Management Process at the company.

The requirements that were defined during the thesis were the following:

- Possibility to mark absences in system before time of absence
- Create categories for absences: holiday, sick leave, personal leave, maternity/paternity leave
- Changes to absence visibility for different authority levels
- Change interface for viewing absences for teams

The requirements were discussed with Paul Susan, the CTO of the company, during meetings on both 1st and 7th of December 2015, where after the requirements were delivered by Paul Susan to his software team/teams for further development and implementation. No Requirement Specification was written before this stage.

7 Trustworthiness, Conclusions and Recommendations

7.1 Trustworthiness, Validity and Reliability of thesis

The objectives and research questions for the thesis are clearly stated and concise. The types of measure used in the thesis are Semi-structured Interviews, Analyzing Qualitative Interview Data, participant observation and system requirement analysis.

As Silverman (2006) brought up, Catherine Riessman explained that a way to increase the accuracy of a research study is to record the interviews and conversations so that they can be more accurately presented in writing later on. (Silverman 2006) The interviews conducted for this thesis were all recorded in order to present them accurately in the interview transcripts.

It would have been optimal to record also the meeting held with the management team and with the CTO of the company, but due to the confidentiality of the other matters discussed at these meetings no recording was allowed by the company.

The circumstances of the case in this thesis made the data gathering and analysis a bit challenging. At the case company there were only two key persons to interview during the data gathering phase due to the size of the company. The data would have been more precise and detailed with a larger range of interviewees than just two key persons.

Another shortfall of the thesis could be that as an employee already involved in the administration of the Absence and Leave Management Process at the company the author had difficulties staying completely objective while interpreting the data and reaching the results and conclusions.

If the study would be repeated there is no guarantee that two or more persons would have exactly the same interpretations using the same data and procedures that were used in this thesis.

Still, the research made measures what it's purport to measure, and the data analysis is valid for the decisions that were made for the thesis.

7.2 Conclusions

As one of the goals of process improvement is to reach Breakthrough Improvements I'm pleased that this thesis reached that goal. The Absence and Leave Management Reporting and Follow-up are now more structured, with clear steps to take from beginning to end of the Process. The employees and the team managers are more involved in the Process, and are more accountable for their part in it. Another part of this that was successful was the requirements for the development of the WTR Systems that were defined based on the results of the data gathered throughout this thesis.

Based on the theoretical framework for the thesis a process improvement team was used throughout the Project, but both the management team and other employees were involved in making this Project successful.

The measurement stage of the process improvement is missing due to the circumstances of the case. There was no way to measure the Absence and Leave Management Process. The thesis could have been more extensive if there would have been more time reserved for it and if there would have been more key persons to interview and gather information from.

It was rewarding to plan and carry out a Project like this from beginning to end, and to notice how it's possible to connect theory and practice, as well as realizing that the tools described in theory and literature sources can be applied in real working life.

7.3 Recommendations

It was concluded that the developments of the WTR system as an Absence and Leave Management tool will be continued during the upcoming months both to continue with the already started process improvements and to develop the WTR System into a more well-functioning product for the company's customers. Both the Management and a number of employees will be involved in the continuous improvements.

As part of the Continuous Improvement another administrational process to improve was identified: the Induction and Termination Process. This Process is in a clear need of improvement, and is not standardized or regulated in any way at the moment.

The improvements to be made to the Induction and Termination Process could follow mostly the same phases as the Leave and Absence Management Process and involve the members of the already existing process improvement team plus some new members who are directly or indirectly involved in the existing introduction of new employees at the company.

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Illustrations

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- Figure 3: Performance/Importance Matrix by Peppard & Rowland (1995)
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Tables

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Table 3: Introduction Plan for improved Absence and Leave Management Process

Abbreviations and Terms

BPI – Business Process Improvement

BPM — Business Process Management/Modeling

 $IT-Information\ Technology$

the company - In4mo Oy/Ltd, the case company

 $\mathsf{BP}-\mathsf{Business}\;\mathsf{Process}$

 ${\sf AP-Administrational\ Process}$

BPR — Business Process Re-engineering

PDCA — Plan-Do-Check-Act

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Appendix 1: Questions for interview with Miika Toivonen

Questions for thesis interview with Miika Toivonen, Finance and Administration Manager at In4mo Oy

Date and time for interview: Thursday 15.10.2015 at 9:30

- 1. Please describe your role and responsibilities at In4mo Oy.
- 2. How many employees are currently working for In4mo Oy?
- 3. In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?
- 4. What kind of Absence and Leave Management Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?
- 5. In your opinion, what are the biggest problems or challenges with the current system/process?
- 6. Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?
- 7. What features are needed if In4mo Oy acquires such software?
- 8. What kind of price limit would there be for such a software for In4mo Oy?
- 9. Is there a deadline for implementing software for this process?
- 10. Would a training session for the employees be needed?
- 11. How would you like the documentation for the software to be?
- 12. What would be the main targets of taking such software into use at In4mo Oy?
- 13. Do you have any certain expectations from the improvements to this process?

Appendix 2: Questions for interview with Kursat Inandik

Questions for thesis interview with Kursat Inandik, Managing Director at In4mo Oy Date and time for interview: Thursday 22.10.2015 at 9:30

- 1. Please describe your role and responsibilities at In4mo Oy.
- 2. In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?
- 3. What kind of Absence and Leave Management Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?
- 4. In your opinion, what are the biggest problems or challenges with the current system/process?
- 5. Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?
- 6. What features are needed if In4mo Oy acquires such software?
- 7. What kind of price limit would there be for such a software for In4mo Oy?
- 8. Is there a deadline for implementing software for this process?
- 9. Would a training session for the employees be needed?
- 10. How would you like the documentation for the software to be?
- 11. What would be the main targets of taking such software into use at In4mo Oy?
- 12. Do you have any certain expectations from the improvements to this process?

Appendix 3: Transcript from interview with Miika Toivonen

Record from thesis interview with Miika Toivonen, Finance and Administration Manager at In4mo Oy

Date and time for interview: Thursday 15.10.2015 at 9:30

Malena: Thank you so much for doing this interview for my thesis. Let's go through the questions that I sent you yesterday, one by one. Please tell me if there's anything unclear about any of the questions.

Malena: Please describe your role and responsibilities at In4mo Oy.

Miika: I have both financial and admin duties. The financial duties are for example accounts payable and receivables, bookkeeping, accounting, payroll, reporting to the CEO and Board of Directors, reporting to the tax office, pension/insurance companies, unemployment funds, etc.

The admin duties consists of co-operation (applications, notifications, reports, etc. keeping records up-to-date) with Verohallinto, Tilastokeskus, Kela, Diacor, insurance company, suppliers and customers, amongst many other things.

Malena: How many employees are currently working for In4mo Oy?

Miika: The current number of employees is 33, but next month we will have 37.

Malena: In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?

Miika: There are some basic "paths" to follow, but as a whole the processes could be better.

Malena: What kind of Absence and Leave Management Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?

Miika: The applying is done by face to face meeting and/or email between the employee and the closest manager. When the manager has approved the leave, it'll be told to persons responsible of keeping the records and payroll.

Malena: In your opinion, what are the biggest problems or challenges with the current system/process?

Miika: The records are kept in simple excel tables, so it is always vulnerable to mistakes, misunderstanding, and forgetfulness. All employees might not know all principles, according to which the leaves can be granted, how many days you need for a certain period of time (i.e. what are the public holidays, etc.), how many days a person has left to use for vacation.

People do not always remember to notify the payroll/record manager(s), and therefore the leave records can be out-of-date and incorrect.

Malena: Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?

Miika: It would need to be such a system that has the records inside it, so that the employee can see his/her available leave days himself/herself when needed. This would also help the people having the records currently; no more questions about days left.

The managers would have an up-to-date view of employees' leaves so that they can see who's on vacation and when. If and when the leaves affect the payroll issues, the payroll manager can have an up-to-date view of everyone's leaves and can adjust the salaries accordingly without hunting for someone who could possible know something or not.

Malena: What features are needed if In4mo Oy acquires such software?

Miika: I think that most of what I answered on the previous question covers this. But in general; more automated and real-time process.

Malena: What kind of price limit would there be for such a software for In4mo Oy? Miika: Since this is the first this kind of need, we are open to all options. When we know more about the offered features and how those features would help the processes, we can evaluate the costs and benefits.

Malena: Is there a deadline for implementing software for this process?

Miika: We would like to take the system into use from the beginning of 2016, so that it's up and running smoothly before the new vacation season starts in the spring.

Malena: Would a training session for the employees be needed?

Miika: I believe so. The process is new so it has to be clear to everyone that this is the way we are going to do it now.

Malena: How would you like the documentation for the software to be?

Miika: For the employees and managers, the documentation should be short and simple. Only the basic functions that are needed to go through the process should be on the doc. People who need more in-depth views, features, etc. can use the docs that come with the software. Maybe the short and simple could be made with screenshots from the software? Malena: What would be the main targets of taking such software into use at In4mo Oy? Miika: To make the whole leave process more reliable and simpler.

Malena: Do you have any certain expectations from the improvements to this process? Milka: We need to have a professional level process. We are growing every year and this will get out of hands it this is not done soon.

Malena: Thank you for answering all my questions!

Appendix 4: Transcript from interview with Kursat Inandik

Record from thesis interview with Kursat Inandik, Managing Director at In4mo Oy Date and time for interview: Thursday 22.10.2015 at 9:30

Malena: First of all, thank you so much for agreeing to do this interview for my thesis. Let's go through the questions that I sent you yesterday, one by one. Please tell me if there's anything unclear about any of the questions.

Malena: Please describe your role and responsibilities at In4mo Oy.

Kursat: Oh. My role, hmm... I am the CEO of In4mo and a chairman of the board also. So that means all the things we do at In4mo are my responsibilities and also the strategy planning.

Malena: In your opinion, how well does administrational processes overall function at In4mo Oy? Are they well planned and organized?

Kursat: So and so. It could function better, because we don't have clear processes at this moment. Because we have a legacy of being a start-up, and we don't have many of the roles yet in our company and the processes, so everyone does everything still. We are a bit like that.

Malena: What kind of Absence and Leave Management Process is currently used by the employees and managers at In4mo Oy for applying for days off, approving for days off, and following up on days off?

Kursat: Ok, so the employees they need to agree with their manager for the days off, like voluntarily, like holidays and so on. And then after the managers approve the employees need to inform Miika and somebody called Malena. Ha ha! You might know this Malena person. Ok, but then with the sick leaves they have to again inform Miika, Malena and their manager. And Malena keeps track in an excel file of all the sick leaves, holidays...all days, all out-of-office situations. As I have understood, right?

Malena: Yes, that is right. And in your opinion, what are the biggest problems or challenges with the current system/process?

Kursat: Still there are mistakes. I look at the excel, somebody doesn't have any holiday, but then I know that this guy has just been two weeks on holiday like last week. Or I count the holidays, and I see there that he still has 65 days holiday left, but when I discuss with him he says that he has only 7 days left. So there are still problems. It's not working.

Malena: Who would benefit from developing a new system/process and taking some Absence and Leave Management Process software into use?

Kursat: I would benefit, so I know what's going on better. And team leaders would benefit, and people would benefit. So that they know themselves also, so that the counting also becomes automatic.

Malena: What features are needed if In4mo Oy acquires such software?

Kursat: It shouldn't be an expensive tool, first thing, because it's not such a big thing. I mean, we can do it with excel also; it's a bit more manual and time consuming, but it's possible to do. It's more about implementing and taking into use the process, and creating more discipline in the company. But if there is a tool with reasonable price then it would make it easier with even less discipline and less hustle. When things are easier people do it, they implement it better. I mean they don't forget to do things if what you need to do is easier, basically. So that could be that, and what I would like from this tool is that it's really counting and automatically counting how many days you have, how many days left, and all. And when the tool is there in place I think that it would be good to put strict rules; that you are binded to do what the tool says.

So if the tool says that you are not on holiday then you are supposed to be in the office. And if you then don't come then it means that you are not coming to the office when you are supposed to come to the office. So that means that people must take this kind of tool seriously. Otherwise there is no sense of following all these if people do things without informing.

Malena: Uhm, and I know that we discussed this before, but is there a deadline for implementing software for this process?

Kursat: I think that it's always good to implement new tools in the beginning of the year.

Malena: Would a training session for the employees be needed?

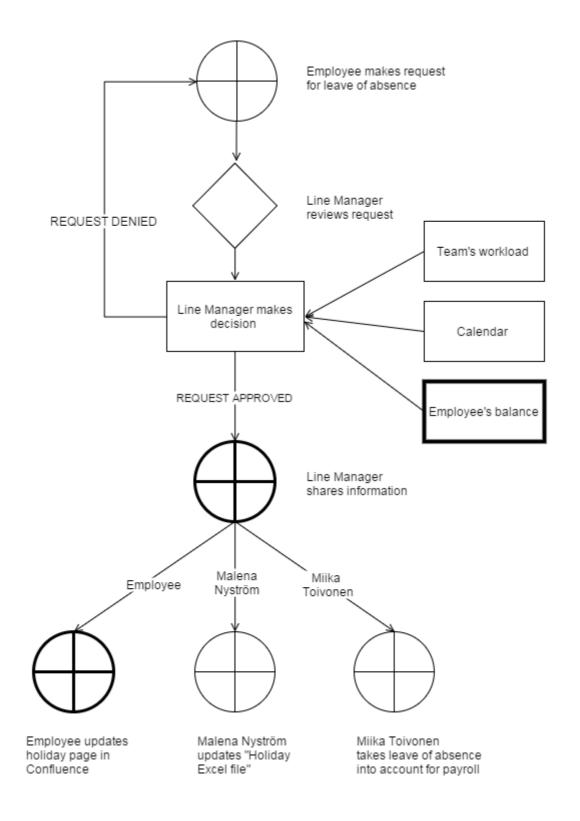
Kursat: I think so. If you take this new tool into use then you must explain to people what they are supposed to do and when it will be done, and what are the consequences if you don't do it. All of them should be discussed.

Malena: What would be the main targets of taking such software into use at In4mo Oy? Kursat: When we look at the numbers, people out of the office, the times, they should be right, that's the main target.

Malena: Do you have any certain expectations from the improvements to this process? Kursat: I expect that the numbers are right. That's my expectation, that's all that matters. If you are following something and the numbers are not right, then there is no sense in following it, the numbers must be right.

Malena: So that was it. You had really good answers! Thank you for answering all my questions!

Appendix 5: Process Chart of current Absence and Leave Management Process



Appendix 6: Work Plan for Phases 1 to 3

Tasks	Dognovsihility	Start	Fund data	Disposition
Tasks	Responsibility	date	End date	Disposition
Phase 1: Identify the critical process				
Identify the process to improve	CEO	Sept 9 2015	Sept 12 2015	
Identify Process Improvement goals	CEO	Sept 9 2015	Sept 12 2015	
Identify key persons	CEO and Mii- ka Toivonen	Sept 10 2015	Sept 12 2015	
Form Process Improvement team	Malena Nys- tröm	Sept 10 2015	Sept 14 2015	
Develop work plan and goals	Malena Nys- tröm	Sept 14 2015	Sept 30 2015	
Phase 2: Measure the process Gather existing data on the process	Team	Sept 10 2015	Dec 16 2015	
Review existing policies and procedures	Team	Sept 10 2015	Dec 16 2015	
Map the process	Malena Nys- tröm	Sept 10 2015	Dec 16 2015	
Develop requirements for process	Team	Sept 10 2015	Dec 16 2015	
Develop process time-frame	Team	Dec 1 2015	Dec 16 2015	
Phase 3: Redesign process				
Establish ideal and to-be states	Team	Sept 10 2015	Dec 16 2015	
Redesign process to confirm the to-be state	Malena Nys- tröm	Oct 1 2015	Jan 15 2016	
Quantify targets:				
Short term (one month)	Management	Dec 7 2015	Jan 15 2016	
Long term (one to three months)	Management	Dec 7 2015	Jan 15 2016	
Develop work plan to implement	Malena Nys- tröm	Dec 7 2015	Jan 15 2016	
Develop proposal to management	Malena Nys- tröm	Dec 7 2015	Dec 16 2015	
Present proposal to management	Malena Nys- tröm	Dec 16 2015	Dec 16 2015	

As-is Process

No	Process step	Responsible per-		
INO	Process step	sons		
	Employee makes			
1	request for leave of	Employee		
	absence			
2	Line Manager re-	Manager		
	views request			
3	Line Manager	Manager		
	makes decision	Wanager		
4	Line Manager	Manager		
4	shares information	Manager		
	Employee updates			
5	holiday page in	Employee		
	Confluence			
	Malena Nyström			
6	updates "Holiday	Malena Nyström		
	excel file"			
7	Miika Toivonen			
	takes leave of ab-	Miika Toivonen		
7	sence into account	ivilika rolvorien		
	for payroll			

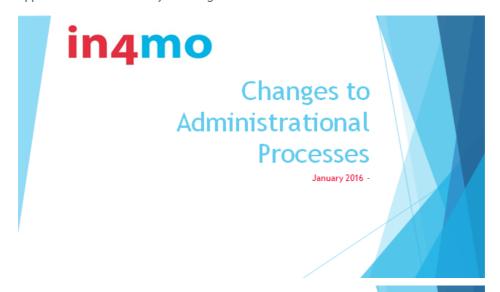
To-be Process

1	I			
No	Process step	Responsible per-		
		sons		
	Makes request			
1	for Leave of Ab-	Employee		
	sence			
2	Reviews request	Manager		
3	Makes decision	Manager		
4	Updates the oth-	Managor		
4	er parties	Manager		
	Takes Leave of			
5	Absence into ac-	Miika Toivonen		
	count for payroll			
	Updates Holiday			
6	Excel / Reports	Malena Nyström		
	Updates Conflu-			
7	ence Holiday Cal-	Employee		
	endar			
_				
8	Updates WTR	Employee		
	Shares reports			
9	with other par-	Malena Nyström		
	ties			
10	Use information	Manager		
	for planning	Manager		
11	Use information	Management		
	for planning	ivialiagement		

Use information for planning Use information for planning Shares Reports with other parties Updates Confluence Updates WTR Holiday Calendar Takes Leave of
Absence into account
for payroll Updates Holiday Excel / Reports Updates the other parties REQUEST APPROVED Employee's balance Makes decision REQUEST DENIED Calendar Reviews request Team's workload Makes request for Leave of Absence Ешрюуее Management Miika Toivonen Malena Nyström Line Manager Information sources

Appendix 8: To-be state Process Chart of Absence & Leave Management Process

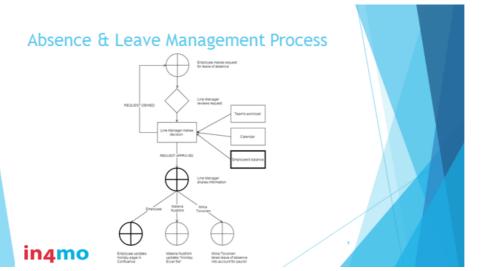
Appendix 9: Presentation for management team on 16.12.2015



Process Improvements

- Part of my Bachelor's Thesis (Business Management)
- ► Goals:
 - ▶ More structured processes
 - Establish efficiency, accountability and consistency
- Implementation starting from January 2016
- Training sessions will be organized
- Please give feedback!

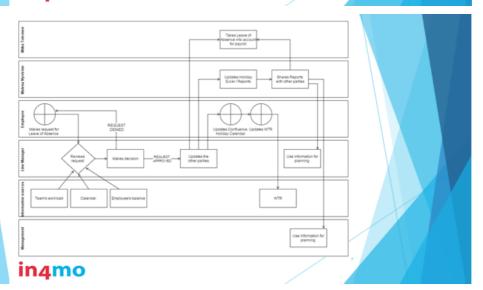
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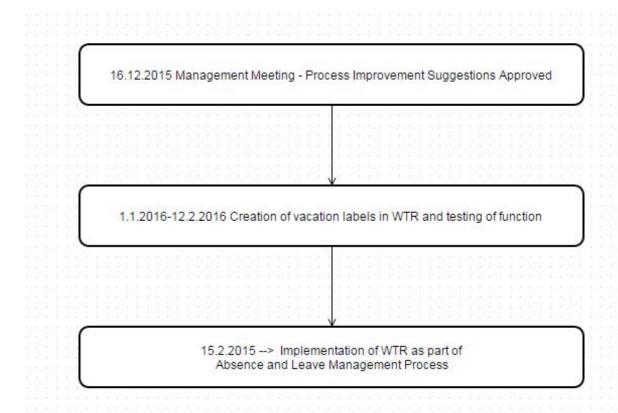


Absence & Leave Management Process

- ▶ Work Time Reporting system will be taken into use for Absence & Leave Reporting
- Improvements still to be made
- Goals:
 - Correctinformation
 - Better overview for administration and management
 - ▶ Increased accountability
 - ▶ Better reports

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Appendix 11: Induction Plan

Table 2: Introduction Plan for improved Absence and Leave Management Process			
Tasks	Responsibility	Start Date	End Date
Inform employees about the upcoming changes	Management	1.1.2016	_
Send out email with information	Paul Susan	1.1.2016	_
Enforcement by team leaders	Management	1.1.2016	29.2.2016

Appendix 12: Performance/Importance Matrix As-Is Process

•	2			
		• 3		
				High
	Low		• 3	• 3

Appendix 13: Performance/Importance Matrix To-Be Process

High		• 4	• 5 • 1	
IMPORTANCE	• 2			
IMPOR		• 3		
Low	Low	PERFOR	MANCE Hi	gh