ANALYZING THE COST-EFFICIENCY AND PERFORMANCE OF A PAYROLL DEPARTMENT BY BENCHMARKING

Examiner: Professor Tuomo Kässi
Instructor: Lasse Mustonen, Stora Enso Oyj

Lappeenranta 30.8.2009

Turkka Vuoksiala
**ABSTRACT**

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The goal of this thesis was to analyze whether Stora Enso’s current payroll department and its human resources software, SAP HR, offer a cost-efficient and competitive solution. This was done with the help of benchmarking.

Five large Finnish companies participated in benchmarking. The main focus of benchmarking was on a cost comparison between the companies. The survey also focused on the performance of the companies’ respective software. The results showed that Stora Enso’s payroll department is cost-efficient and its HR software and system model are competitive compared to other major Finnish companies.
TIIVISTELMÄ

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Tämän diplomityön tavoitteena oli analysoida Stora Enson palkkakeskuksen ja sen henkilöstöhallinnon järjestelmän, SAP HR:n, kustannustehokkuutta ja suorituskykyä. Tutkimuksessa käytettiin apuna benchmarkingia.

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Lappeenranta, 30th of August 2009

Turkka Vuoksiala
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LIST OF ABBREVIATIONS

ASP  
Application Service Provider

BC  
Blue collar worker

CATS  
SAP time sheet

CADO/CAOR  
SAP reports that check timesheet data

DE  
Germany

ERP  
Enterprise Resource Planning

Fenix  
ERP Software

FI  
Finland

Flexim  
Time recording key, communicates with SAP HR

HCM  
Human Capital Management

HR  
Human Resources

IT  
Information technology

MBP  
ERP Software

MRP  
Material Requirements Planning

PR  
Payroll

SAP  
Market leading ERP Software

SSC  
Shared Service Center, handles some financial functions of Stora Enso’s Finnish units
1 Introduction

Stora Enso uses SAP HR as its main software for payroll in Finland. All of its wages go through this system. The installation and updates to the system are taken care of by its provider, Aditro. Recently Stora Enso has begun researching whether the current provider offers a cost-efficient solution compared to other possible alternatives.

In the current financial situation saving costs is critical. Stora Enso wants to know whether its payroll processes are efficient and how much costs they acquire. The efficiency of its processes relate to the performance of its software.

Stora Enso’s system model in payroll requires that all the major decisions regarding software must go through global human resources. It also means that payroll’s in different countries have different providers. This sort of a coupled solution causes for a lack of flexibility in decision-making.

Figure 1. Current System Model (Tanskanen, 2009)
The picture above is an example of the current model. Finnish and German payroll have different providers. Finnish payroll is connected to global HR. Germany uses a satellite version of payroll and it is located in the customer interface (Tanskanen, 2009).

1.1 Research background

The purpose of this Master’s thesis is to examine, whether the current human resources software and its performance is competitive compared to other companies’ payroll departments. Stora Enso has considered switching into a satellite solution instead of the current coupled system model. The goal of this thesis is to research, if the current software and its provider can offer the best solution for Stora Enso’s needs.

The subject of this thesis is current to Stora Enso, because it is at the moment researching alternative solutions or vendors that might offer more efficient performance and lower costs than its current partner. In my thesis I will be concluding benchmarking between other Finnish companies’ payroll departments. The results of this analysis will help the company in determining, whether the current system model used at Stora Enso is indeed the right solution for the company.

1.2 Research objectives

The objective of this thesis is to give the company a comprehensive report of the performance and efficiency of their payroll department. This will be done by benchmarking. Benchmarking will be done with the help of an excel sheet (appendix 1). The sheet is a cost comparison that will produce important key indicators.

I will also be conducting a questionnaire (appendix 2) about the use of time that goes into different procedures and tasks at Stora Enso HR Finland Service Center.
This questionnaire will determine what areas need to be improved in order to add efficiency to the payroll department.

Five major Finnish companies will be participating in benchmarking. The results of the comparison will give me a good idea about the current situation of Stora Enso’s payroll services. Benchmarking will also give me material on the current software’s performance and competitiveness, since two of the other companies have different software solutions than Stora Enso.

### 1.3 Research implementation

Cost comparison will be performed with an Excel sheet. I will send out the sheet to the participating companies and they will fill it according to their own information. The sheet will be discussed in prior meetings, so that the scope of the comparison will be the same for each company. That way the results will be comparable.

I will also prepare a sheet that lists critical tasks to payroll clerks at Stora Enso. The clerks will fill the questionnaire based on their yearly workload. Most of the tasks on this sheet are based on different transactions in SAP HR.

The companies participating in benchmarking are the host company Stora Enso, Finnair, YLE, Metsäliitto and Neste Oil. Of these companies Stora Enso, Finnair and YLE use SAP HR. Metsäliitto and Neste Oil use different software in their payroll departments. This will make for an interesting comparison and show me if there is considerable differences between the performances of different HR software.

Before the start of the actual benchmarking survey I will be doing work on the questionnaires and interviewing people for feedback. After the research I will analyze the results and try to come up with possible alternative solutions that might benefit the host company.
1.4 Structure of the thesis

The following figure gives out an input and an output for each chapter of the Thesis. It presents every chapter’s meaning and purpose to this Master’s thesis.

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Figure 2. Structure of the thesis
1.5 **Stora Enso company profile**

Stora Enso is a global paper, packaging and forest products company. Its core products are newsprint and book paper, magazine paper, fine paper, consumer board, industrial packaging and wood products (Stora Enso, 2009).

Stora Enso employs 32,000 people in 85 production facilities that are placed in 35 countries worldwide. Stora Enso is a publicly traded company that is listed in Helsinki and Stockholm. The company’s customers include publishers, printing houses and paper merchants, as well as the packaging, joinery and construction industries (Stora Enso, 2009).

Stora Enso’s annual production capacity is 12.7 million tonnes of paper and board, 1.5 billion square metres of corrugated packaging and 6.9 million cubic metres of sawn wood products, including 3.2 million cubic metres of value-added products. The company’s sales in 2008 were 11.0 billion euros, with an operating profit of 388.4 million euros (Stora Enso, 2009).

**Group Executive Team as of 23 April 2009**

![Stora Enso Organization](Stora Enso, 2009)

*Figure 3. Stora Enso Organization (Stora Enso, 2009)*
1.5.1 Stora Enso HR Finland Service Center

Stora Enso HR Finland Service Center was founded in 2003. The service center provides payroll services to Stora Enso’s Finnish units. The service center is a part of the HR Finland organization and consists of two separate service groups that are located in Imatra and Kemi (Stora Enso, 2009).

Figure 4. HR Finland Organization (Stora Enso, 2009)
2 Payroll at Stora Enso

Finnish payroll is divided into two offices, one in Imatra and one in Kemi. They are responsible for providing wage calculation to Stora Enso’s employees in Finland. SAP HR is the main system used in payroll and figures in most of the payroll functions.

Time recording can be categorized as a part of payroll calculation at Stora Enso’s Finnish functions. In Germany time recording is done in a different unit by HR personnel specifically assigned to this area. These persons are called time managers. In Finland payroll clerks take care of this segment as well.

Other major functions are accounting, reporting and upholding the organizational tree. The figure below is a map of the most important functions in payroll.
2.1 Payroll Calculation at Stora Enso

Stora Enso’s Finnish functions have 9,695 workers. This means that on average a payroll clerk calculates the wages of 440 workers. In total Stora Enso’s Finnish payroll produces approximately 232,000 payslips a year.

Payroll calculation in Finland is divided into payroll periods. Blue collar workers have 26 periods in a year. They receive their wages every two weeks. These are the employees that usually get their wages based on an hourly fee.

White collar workers have 12 periods in a year, and thus receive their wages once a month. These employees have a fixed monthly salary that may include some fringe benefits.
There are also pay days for mechanical workers and short time workers. Payoffs can be done twice every week. Mechanical workers have their own payroll periods, which differ slightly from the schedule that the blue collar workers have. Short time workers are usually summer trainees that are contracted to the company for a month at most.

Stora Enso uses a total of five collective bargaining agreements in wage calculation. They are separate for white collar and blue collar workers. Mechanical workers have separate agreements. Employees who work for Stora Enso Forest also have a different agreement than others which explains for the amount. These agreements contain rules and regulations for payroll. These rules include for example pay for overtime and absences.

The two most common types of contracts that employees have are permanent or temporary contracts. These don’t affect payroll calculation in a major way. Payroll clerks have to check the temporary worker’s status once in a while especially if the ending date of their contract is approaching. Before a payoff can be made, a note from the unit must be sent to the payroll clerk.

### 2.1.1 Calculating a wage

When calculating a wage, payroll clerks need information about the worker’s salary, work hours and possible additional bonuses. These are all found in SAP HR. They are all entered to the system when an employee starts working at Stora Enso.

During calculation periods this information doesn’t have to be changed in any way. The system brings them to a person’s payslip in SAP automatically. Most of the work during payroll periods involves checking for errors, overtime, absences and bonuses. Sometimes this information needs to be corrected manually to the
system, so that the payslip gives out the correct amount of money to the employee.

The employee’s overtime pay is determined by his salary and the collective bargaining agreement. The overtime hours should be marked in SAP in the CATS time sheet and approved by the line managers. The system should then bring this information to the payslip. In some cases payroll clerks need to manually adjust the information on the payslips. This happens for example when reporting weekend work. The collective bargaining agreement states that when a person works through Saturday and Sunday, he/she will receive extra weekend pay. This information shows on the CADO/CAOR lists that payroll clerks print out from SAP during every payroll period.

It can be said that most of the information needed to calculate a person’s wage is already stored in the system. The main responsibilities for payroll clerks are to check and see that absences, weekend work and overtime are marked correctly into the system by employees and line managers. Sometimes this will require a lot of work though. Correcting errors by line managers and employees can take a lot of time.

Updating an employee’s master data in SAP brings information to the payslip as well. Examples of this could be bonuses and seniority allowances. After a payroll clerk makes updates to the system data, it once again shows on the SAP payslip.

The SAP payslip is an important transaction when calculating wages. When a payroll clerk makes changes to the system he/she usually checks it from the payslip after the update. This way the clerk can make sure that the right amount of money will be paid to the employee.

2.2 “Time to Money” Process

One way to look at benchmarking and payroll is through a process called “from time-to-money” (Tanskanen, 2009). It involves four actors: Employee, line
manager, SAP head user and payroll clerk. This process divides payroll into six different segments. The process begins with an employee entering his hours into the system and ends with the employee receiving his payslip.

This process can also be used when comparing functions and processes with the benchmarking partners. This will bring a different point of view to the survey, because at some companies these different segments are handled outside the payroll department. Dividing the process into these six areas makes it easier to compare the efficiency of procedures and tasks.

Figure 6. Payroll process “From time to money”

The first segment is time recording. In this part the employee records his/hers working hours. All employees have a Flexim key that automatically registers employees’ hours to SAP when an employee records himself into and out of work. Flexim is integrated to SAP HR:s CATS time sheet transaction. An employee has to only enter hours manually to SAP when they differ from his/hers normal scheme of work. The schemes are set up for every employee in SAP.
The second segment is called approval. In the approval phase, the line managers check the employees’ time sheets from SAP and approve them. If there are some irregularities, the line managers may make changes to the time sheet.

The third segment is called time evaluation. Time evaluation is also a SAP transaction that upholds information about time recording. The head users run a mass transfer for the CATS time sheet and time evaluation. The mass transfer includes all employees in Finnish functions of Stora Enso. After the run, payroll clerks will receive information via email about possible errors that occurred during the transfer.

The fourth segment is payroll calculation. In this part the payroll clerks continue checking for errors and faults. Running CADO/CAOR lists and checking if the employees’ absences and vacations are marked correctly on their time sheets are examples of procedures that are done at this time. After the payroll clerks have done all the necessary corrections, the head users will run another mass transfer. This process creates a circle that continues until the end of each payroll period.

When the circle mentioned above is complete, the head users create the material for bank transfer. After this segment five can begin. It is controlling. In this phase the payroll accountants will create the pay document. The pay document contains information about the salaries paid from Stora Enso’s Finnish functions. Otherwise controlling can be defined as internal calculation that is done in other units outside of payroll.

Segment six is legal reporting. In this phase the employee should receive his payslip and the data for bank transfer should be ready, so that the employees can get their compensation on their bank accounts. Legal reporting in payroll also includes various kinds of reports such as annual notification and sickness allowance.
The process described above involves a small part of procedures that are done during payroll. The idea is to give a simplified view of the “time – to – money process”.

2.3 Other Payroll functions

Payroll calculation isn’t the only function performed at the HR Service Center. Payroll accounting is also a major part of payroll. Payroll accounting is done by some payroll clerks. The accountants receive a bonus from doing accounting as well as payroll calculation.

Most of the accounting work happens right after a payroll period has closed. The payroll accountants make net payment sheets and transfer them to SharePoint. The responsibility of the payroll department is to see that the net payments and head accounts match for all of Stora Enso’s Finnish units. Other functions at the payroll department include management, development, assisting and reporting and upholding the SAP organizational tree.

It can be hard to assess detailed job descriptions for some of the people at the payroll department. Some people have shattered job responsibilities that spread throughout the organizations procedures. The benchmarking effort done in this thesis will try to include all of these different responsibilities and tasks.

2.4 Payroll Systems

The main software used for payroll at Stora Enso is SAP HR. The HR module is suitable for payroll calculation and accounting. Microsoft SharePoint is the other system used in Finnish payroll.

SAP HR is used for calculating wages, payroll accounting, reporting and upholding the organizational tree. SharePoint is used as an intermediary system between the Shared Service Center (SSC) and the Payroll Center. The payroll
accountants at the Payroll Center are responsible for providing information to SharePoint about net payments after every payroll period.

### 2.5 Payroll Provider

Stora Enso HR Finland Service Center uses Aditro as its provider for payroll. Aditro provides Stora Enso with a customized version of SAP HR. Installations and support for the main software are also provided by Aditro.

Global payroll is provided by Siemens. Stora Enso’s Finnish payroll is connected to Siemens via Aditro. It provides Stora Enso with a coupled system for Finland, where payroll is connected to global HR. This means that major decisions regarding payroll systems require the acceptance of global human resources, thus making Finnish payroll connected to two providers. Having a decoupled situation as Germany has, would increase freedom and speed up processes. Switching to a decoupled solution would be costly and require organizational change. In the current financial situation this change could be hard to sell to management.

### 2.6 Problems in payroll

Communication between units and the payroll department is one of the bigger problems in payroll. The lack of communication can slow many processes. People in units aren’t always good SAP users, and that creates problems for payroll clerks and increases their already heavy workload.

The lack of common sets of rules and instructions makes it harder for new payroll clerks and summer workers to adapt to a new workplace. Payroll calculation can be done in many different ways, but setting up some common instructions for procedures would be a good idea for the future. A project has been set up for this purpose at the company.
3 Payroll in Human Resources

Foot & Hook (1999) describe the following as the main activities of human resource management:

- Recruitment and selection
- Training and development
- Human resource planning
- Performance assessment
- Payment and reward of employees
- Health and safety

Payroll belongs to payment and reward of employees. It is an important part of human resource management. It is critical that payroll works properly in order to guarantee that the employees in an organization will be kept happy and motivated.

3.1 Means of payment

One of human resource management’s top concerns is that people work as effectively as possible for the organization. One of the ways that an organization tries to achieve this is by setting up an appropriate system of payment to encourage and reward employees (Foot & Hook, 1999). In the following paragraphs I will go over some of the most common means of payment.

Compensation is often referred to as payment, but in payroll it usually means that the employee will be compensated for a loss or an injury (Foot & Hook, 1999). Examples of this could be sick pay or compensation for an injury caused through work.

Reward can be used when trying to motivate people to work harder. Reward could also be a non-monetary award. Remuneration can also be used as a term for
payment (Foot & Hook, 1999). An example of this could be holiday remuneration.

Wages are usually paid on a weekly basis. They are based on hourly pay and are most often the source of payment for white collar workers. Wage-earners usually do a totally different job compared to management (Foot & Hook, 1999).

Salaries are most likely paid on a monthly basis. Salaries often include fringe benefits. Salaried employees tend to be in managerial posts or identify themselves closely with management (Foot & Hook, 1999).

### 3.2 Payroll Vendor Selection

Choosing a system vendor is a critical choice for a department. It can easily determine the success of a payroll department (IOMA, 2009).

One of the most important factors when choosing a vendor is its customer-oriented culture. The vendor should listen to customers, understand their needs and be able to create innovative solutions. Customer service should also be one of the top priorities when choosing a vendor (IOMA, 2009).

The vendor needs to be financially sound and reliable. In the current financial situation this will certainly become a more important criterion. Confidence in the vendor must be high, when entrusting it to process your sensitive data (IOMA, 2009).

A good software vendor understands a customer’s business and industry. The vendor’s size and experience is a factor that should be considered given the volatility of the software industry. A strong customer base will usually benefit all customers (IOMA, 2009).
Technology is without a doubt an important factor as well. The continuing evaluation of payroll systems and staying current with what’s available in the marketplace should be some of the vendor’s top priorities. A solid platform is an essential part of any good software. A good vendor must be ready to constantly update their software to accommodate for the ever-changing rules and regulations of payroll (IOMA, 2009).

Other important factors that are discussed in IOMA’s (2009) article about choosing a payroll vendor are:

- An established infrastructure that supports clients needs
- Internal controls for data security and funds
- The ability to relocate payroll processing in case of an emergency
- Technical knowledge
- Opportunities for training and development
- Long-term cost of ownership
- Customer references
- The ability to support growth in the future
- Accuracy and timeliness of the system
- Options for reporting

### 3.3 Payroll System Selection

A company may decide to purchase a new payroll system for a variety of reasons. The age of the old system could be a factor. A lack of support from its current vendor or new business requirements could lead to the acquisition of a new system. Selecting and implementing a new system can however be a time-consuming and expensive project. Payroll managers should think carefully about the options that are available before making the decision (IOMA, 2008).

There are many alternatives to choose from when picking a system. IOMA’s article (2008) divides these choices into four categories:
1) Application Service Provider
2) An in-house computer with customer-designed software
3) An in-house computer with vendor-supplied software
4) A combination of these elements

3.3.1 Application Service Provider

An application service provider (ASP) is an independent company that takes care of the client’s entire payroll or a portion of the payroll for a fee. The ASP takes the raw data provided by the employer and processes it in a way that paychecks and direct deposits can be created. This can be a good choice for a small firm that can’t afford to maintain a large payroll department (IOMA, 2008).

The ASP provides the hardware and software used to process payroll. Communication between the ASP and the employer should be frequent and open in order to guarantee that the necessary data is provided. The employer and the ASP should agree on a common way of data transfer to ensure that the process goes smoothly. Typically ASPs receive data through an Internet transfer (IOMA, 2008).

Hiring an ASP has many advantages. The employer has to pay for processing only, meaning that fixed costs are low. It also doesn’t require extra room or employees from the employer. Having an ASP as a payroll system presents networking possibilities with user groups and offers training and support (IOMA, 2008).

The disadvantages in having an application service provider include the following:

- Lack of control and security over sensitive information
- The responsibility for filing errors remains with the employer
- Time for changes is limited
- No control over breakdowns $\rightarrow$ high variable costs

Reference: IOMA, 2008

### 3.3.2 In-house payroll

An in-house payroll system is situated on company premises. The software or hardware is owned or leased by the employer. This allows the employer to have greater control over the hardware system and its security. The system is operated by the employer’s own employees (IOMA, 2008).

There are different options when selecting hardware. They are as follows:

- Mainframe computers
- Microcomputers (personal computers)
- Servers
- Workstations
- Microcomputer networks

Reference: IOMA, 2008

Mainframe computers require a large organization. Having basic microcomputers is a common choice. It allows for flexibility especially when dealing with vendors. Workstations are personal computers that are usually more powerful and faster than an average microcomputer (IOMA, 2008).

Servers provide communication between work stations and personal computers, as well as a connection to the Internet/intranet. The final option is choosing microcomputer networks. This allows computers to communicate with each other inside a network, thus eliminating unnecessary work (IOMA, 2008). When choosing software an employer has three alternatives:

1) Off-the-shelf software
2) Vendor-supplied software
3) Customized software

Reference: IOMA, 2008

An off-the-shelf software can be put into immediate use. The costs are lower than in vendor-supplied software. However, it is usually PC-based and it doesn’t allow for modifications. This option is most suitable for small employers (IOMA, 2008).

Having vendor-supplied software allows for speedy implementation, significant cost savings, vendor updates, easy usability, user-group networking, and better documentation. A disadvantage can be the lack of the vendor’s knowledge about the specific industry or business of the employer. This may result in the fact that the employers’ specific needs cannot be met. Other cons might be the cost of the system and the high capacity required from the employer’s computers (IOMA, 2008).

Customized software will increase control and flexibility. The employer’s needs are met more often and control over the payroll system is greater. Having customized software reduces training time since employees are included in the development of the software (IOMA, 2008).
4 Enterprise Resource Planning

ERP-software can be defined as information technology based software, which supports a corporations’ business activity (Wang & Nah, 2002). Klaus et al. (2000) describe ERP as a comprehensive, packaged software solution that seeks to integrate the complete range of a business’s processes and functions in order to present a view of the business from a single information and IT architecture. In a global corporation it is essential to use some kind of ERP-software that combines at least material management and customer relations (Jormanainen, 2008).

Enterprise Resource Planning systems were born in the 1990’s. They were based on the previously developed MRP (Material Requirements Planning) systems. Through the 1990’s ERP has developed to serve the whole organizations background processes (Jormanainen, 2008).

ERP processes can be generally divided into five categories: Financial controlling, logistics, production, human resources and sales and marketing (Wang & Nah, 2002). In this thesis I will be focusing on human resources.
4.1 SAP

SAP is the world’s leading provider of business software. SAP was founded in 1972 by five former IBM employees. One year later the first financial accounting software was completed and it became known as part of the “R” system, with R standing for real-time data processing (SAP, 2009).

SAP continued to develop different solutions and software through the 1980s. In the 1990s SAP R/3 was created. It has a client-server concept, uniform appearance of graphical interfaces, use of relational databases and the ability to run on computers from different vendors. There are now over 121,000 installations of SAP worldwide (SAP, 2009)

4.1.1 SAP Modules

Rashid et al. (2002) state that in SAP R/3 the software’s functions are divided into modules. They are as follows:

- Financial Accounting (FI)
- Controlling (CO)
- Project System (PS)
- Human Resources (HR)
- Plant Maintenance (PM)
- Production Planning (PP)
- Materials Management (MM)
- Investment Management (IM)
- Quality Management (QM)
- Sales and Distribution (SD)

The newer SAP versions have started using the term solution instead of modules. The main solutions that SAP ERP offers are Analytics, Financials, Human Capital Management, Procurement and Logistics Execution, Product Development and Manufacturing, Sales and Service and Corporate Services (SAP, 2009).
5 Benchmarking

Kyrö (2003) cites Kulmala (1999) and Bhutta and Huq (1999) in her article about the definitions and concepts of benchmarking. Kulmala (1999) refers to benchmarking as the process of evaluating and applying best practices that provides possibilities to improve quality. Bhutta and Huq (1999) argue that benchmarking is a tool for improvement, achieved through comparison with other organisations that are best within the area. Ahmed and Rahiq (1998) state, that benchmarking is learning how to improve activities, processes and management.

Benchmarking is an essential tool for continuous improvement of quality and efficiency (Dattakumar & Jagadeesh, 2003). Besides analyzing competition, benchmarking also includes analyzing organizational processes and methods (Mathaisal et al., 2003).

Xerox was the first company to use benchmarking in the late 1970s. Xerox was keen to understand how Japanese manufacturers could produce less costly but high quality photocopier machines. Through benchmarking Xerox was able to increase design and production efficiency and reduce manufacturing costs of their machines (Mathaisal et al., 2003).

The motivation behind benchmarking and finding best practices is usually in maintaining and improving the organizations’ competitiveness. By comparing processes, the level and standard of the company’s own operations will be clarified. Benchmarking can also accelerate research and development and add awareness of competitors’ strengths and weaknesses (Karjalainen, 2002).

Karjalainen (2002) describes benchmarking as a four step process. The first step is self-evaluation. By doing self-evaluation a company determines the processes that are in critical need of improvement. The next step in doing benchmarking is to find companies or partners that use similar types of processes. Finding willing partners to participate in the benchmarking process is vital for the successful implementation of the survey. After a company has found partners, benchmarking
is concluded between these organizations. The final step is to analyze these results and compare them to the current situation within the company.

Benchmarking can serve as a tool for creating new business relationships. Finding best practices and comparing them will develop co-operation between companies. In this way benchmarking can also act as a communal activity (Karjalainen, 2002).

Karjalainen (2002) states, that benchmarking always includes two key actors. The first of these actors is an estimator. An estimator’s job is to conclude research and to analyze results at the end of the survey. The second actor is the target of research. These are the organizations that participate in the benchmarking survey. It is also important to have specific goals and reasons as to why benchmarking is done. The tools of research must also be clarified before starting benchmarking.

Comparing costs is one of the key factors in benchmarking. If a company can find partners that use different process models or software in similar activities, the benchmarking effort can produce considerable gains to all the participating parties (IOMA Research, 2008).

5.1 Process Benchmarking

In payroll, cutting costs and seeking new ways of performance improvement is a must. By finding and developing best practices a payroll department can achieve these goals. Benchmarking examines best practices from other departments and thus can improve one’s own processes (IOMA, 2008).

When starting benchmarking it is important to establish a benchmarking program for the payroll department. There are several different viewpoints to choose from. The most useful viewpoint when dealing with payroll is usually process benchmarking. Process benchmarking focuses on specific work processes and procedures and identifies the best operating practices (IOMA, 2008).
Process benchmarking can be divided into five phases. The phases are as follows:

![Five Phases of Process Benchmarking (IOMA, 2008)](image)

In the planning phase a payroll department must identify the processes that it want’s to benchmark. Picking the payroll processes that will be benchmarked can be a difficult job. It is recommended to start with the most common procedures (IOMA, 2008).

In this phase the department must also find partners or companies that want to participate in benchmarking. In order for the benchmarking survey to benefit the department it must try to find the most successful companies in its own area of expertise. The last important issue in this phase is to establish a method of collecting data. There isn’t a definite way to do this. The choice usually depends on time and the budget available (IOMA, 2008).

Phase two is analysis. In this phase the payroll department should pick the function they want to benchmark and study this process in its organization. The department must understand the current processes and practices before benchmarking (IOMA, 2008).

Establishing metrics and analytics is an important task in this phase. Metrics will tell a company where it is right now and where it is going. Analytics focus on methodologies, processes and systems that are used to monitor the business performance of an enterprise. Examples of metrics to use in payroll benchmarking could be:

a. The average number of payroll payments per employee
b. Percentage of employees on direct deposit
c. Percentage of employees that receive checks
d. Percentage of errors  
Reference: IOMA, 2008

In the integration phase the benchmarking effort should be completed. Then the payroll department must use the information to make improvements. This requires communication and acceptance by management. Functional goals for implementing the new findings must also be set (IOMA, 2008).

The fourth phase in this process is called action. Once the findings and goals are found, action must be taken. Plans should be made within the payroll department for the possible implementation of new findings (IOMA, 2008).

The final phase is maturity. This level can be achieved with hard work and commitment to the plans that were made after the benchmarking study. At this stage the company should’ve been able to reach the goals that were set after the results from the survey were done (IOMA, 2008).

5.1.1 Benchmarking mistakes

Payroll managers may make a few mistakes that can be costly when concluding benchmarking. Confusing benchmarking for a survey is one of them. Although benchmarking is a survey in itself, it is important to analyze what is behind the numbers. It is critical to find out more about the methods and procedures that take a company’s processes to a desired level of efficiency (IOMA, 2008).

Making the process too large or complex can produce problems. It is usually not recommendable to benchmark the entire payroll department at once. It is also preferable to avoid benchmarking a procedure that is difficult to measure. An example of this could be customer satisfaction (IOMA, 2008).
A company must remember to analyze its own processes thoroughly before beginning benchmarking with other companies. Researching the benchmarking partners and data needs to be also done in a meticulous way (IOMA, 2008).

5.2 Benchmarking Analysis

After the performance data of the benchmarking process is selected, it is time to start examining the findings. The estimator should try to find superior practices from the other organizations and analyze them. Camp (1999) suggests questions that an organization should ask itself when thinking about implementing new practices:

- What is the business impact?
- Is it easy to implement the practice?
- Does it offer near-term or long-term improvements?
- Do the results offer solutions to specified goals or priorities?
- Do the practices complement other initiatives that are already under way?

Camp (1999) also describes ways of recognizing superior practices. They are as follows:

- The practice can be validated from multiple sources
- There is a significant magnitude difference between practices
- Expert analysis
- The practice can be defined as an organization’s core business
- The practice and its output is offered for sale by the organization

5.3 Key success factors in benchmarking

There are several key factors that need to be in check, if a company wants their benchmarking project to be a success. First of all management needs to be
committed to the project (Korhonen, 2009). Without the support of management, the project will lack the necessary resources.

Identifying and knowing your own processes is critical (Korhonen, 2009). The full range of an organization’s processes should be described. This way the organization can prioritize the most important ones that will be compared in benchmarking. Documenting your processes shows the other participants a commitment to the project (Camp, 1999).

The process owners should be included in benchmarking. They might possess information that might become useful in benchmarking. Usually those who are closest to the process, have the most knowledge (Camp, 1999).

Knowledge about benchmarking is required. Organizations should be able to offer training and information about the process. A common set of ground rules and ethical principles should also be established. Participants in benchmarking should commit to giving out right information (Camp, 1999; Korhonen, 2009).

5.4 On-Site visiting

Visiting the other companies that are participating in benchmarking will speed up the whole process and help the companies set common ground rules and expectations. When performing visits the companies should have documents that clarify their standard procedures. Also it would be good for the visiting company to prepare some questions before the visit (Camp, 1999).

It is always favourable to present created documents that could attract the other company to benchmarking exchanges. An example of this could be a documented business process. Sharing this with the other companies will give them the ability to discover new innovative practices and gain insight to their own process (Camp, 1999).
5.5 **Change Management**

Jorgensen et al. (2008) identify key barriers to change. Changing mindsets and attitudes, the existing corporate culture and underestimating project complexity present the biggest challenges to an organization. These “soft challenges” can be more problematic than a shortage of resources.

![Figure 10. Most significant challenges when implementing change (Jorgensen et al., 2008)](image)

Top management sponsorship is regarded as the most important factor for successful change. Other success factors according to Jorgensen et al. (2008) are employee involvement, honest and timely communication and a corporate culture that motivates and promotes change.

Resistance to change can influence the success of an organizational change effort. Usually people aren’t against change per se, but they resist the uncertainty and the potential outcomes that change can bring. Managers need to keep this point of view in mind (Waddell & Sohal, 1998).

Communication and consulting regularly with employees is important. Employees must be given the opportunity to participate and be involved in the change project.
They must also be allowed to give feedback. Considering these factors should be a top priority for management (Waddell & Sohal, 1998).

### 5.6 Sensitivity analysis

The values and assumptions of any economic model are prone to change and error. Sensitivity analysis investigates these potential changes and their impact on a model (Pannell, 1996).

Pannell (1996) divides the uses of sensitivity analysis to four different categories:

1. Decision making or development of recommendations for decision makers
2. Communication
3. Increased understanding or quantification of the system
4. Model development

In all models parameters are somewhat uncertain. The modeller is likely to be unsure of the current values and uncertain about future values. This can be applied to things such as prices, costs, productivity and technology. Uncertainty is one of the main reasons for conducting sensitivity analysis. The analysis helps in recommendations and future decisions (Pannell, 1996).

If and when parameters are uncertain, sensitivity analysis can give information on the following subjects:

1. How robust (insensitive to change) the optimal solution is when dealing with different parameter values
2. Under what circumstances and how the optimal solution changes
3. How much worse would the current situation be if decision-makers stuck to it instead of updating their strategy

If there isn’t a single strategy that would be the most effective choice, sensitivity analysis can identify the best values in different strategic choices. Sensitivity analysis can also be used in risk-assessment, when analyzing the trade-off between risk and benefit within the model. In principle sensitivity analysis has a simple idea: change the model and observe its behaviour (Pannell, 1996).
6 Planning Benchmarking

The benchmarking effort started with creating a questionnaire. The idea of the questionnaire was to list as many procedures as possible from the payroll department. Getting the companies to participate in benchmarking wasn’t a problem. They were all willing to help in conducting research.

6.1 Questionnaire

The first drafts of the questionnaire were supposed to give a comprehensive view of all the processes and procedures that are performed in the payroll center. The initial questionnaire included 120 different procedures. The questionnaire was meant to be divided into personnel areas and units. There was also a separate column for SAP head users.

After discussing the questionnaire with my thesis instructor I decided to compress it. The new survey was intended for payroll clerks only and had 35 different procedures. The new survey wasn’t divided into personal areas and units, thus making it easier for the payroll clerks to fill and creating more reasonable answers.

After the first on-site visit the concept of the questionnaire was changed. The form was divided into 15 larger processes. The idea was to send the form into the participating companies and then see what the common processes were. After that the idea was to go into smaller detail inside the processes.

6.2 Testing

Testing began at the middle of March. It was done at the HR Service Center’s Imatra office. I created a compressed questionnaire (appendix 2) that was to be filled by payroll clerks. The idea was to get some preliminary results before making the first on-site visit to Metsäliitto. I sent the questionnaire to 16 people via e-mail and set the deadline for two weeks.
In the form I divided different procedures into larger processes. The questionnaire was based on the “time-to-money process” with time recording, approval, time evaluation, payroll calculation and legal reporting as the main processes.

### 6.2.1 Results

Out of 16 participants I received eight answers. Out of the larger processes, payroll calculation took up most of the time, with 48 percent. Legal reporting took 35 percent of the clerks’ time and time evaluation 8 percent.

![Figure 11. Test results](image)

The results showed that most of the payroll clerks’ time goes into calculating blue collar wages. Payroll accounting was the second most time consuming procedure. Calculating white collar salaries took less time than blue collar salaries and was the third most consuming task.
Correcting errors from time sheets and time evaluation took a total time of 9.4%. This is a lot of time, considering the fact that these are all mistakes made by people outside of payroll.

In conclusion it can be said that comparing time consumed to wages can be difficult because of different practices that clerks use. There isn’t a common set of best practices in payroll calculation. This is why some people use different lists and reports than others. This is one area that can be developed.

All the payroll clerks don’t participate in payroll accounting. If payroll accounting was compared only among people that conduct it, the percentage of time it takes would be higher.

Testing proved that a form of this kind can be used in benchmarking. The sampling however wasn’t that large. To get more realistic results, it needs to be bigger. The results weren’t a surprise though, as it was thought beforehand that the procedures that topped the list in the questionnaire are the ones that take most of the time.
6.3 **On-Site visiting**

The first on-site visit was done with Metsäliitto at the end of March 2009. In the meeting we discussed the questionnaire I had created for benchmarking. We also gave a presentation about our own processes.

We decided to alter the questionnaire to a broader level. The new questionnaire would involve several larger processes. The next step would be to find out which of these processes are done in the benchmarked companies. After researching for the common procedures, the benchmarking effort could begin.

At the end of April we sent an email to all the representatives of the participating firms. The email contained two documents. The first document gave an idea of a possible cost comparison. The document was an Excel sheet (appendix 6) and was based on Stora Enso HR Finland Service Center’s budget. The object of this document was to allow for a fairly simple comparison of budgets between different payroll departments.

The second document contained 15 processes (appendix 5) that we set up at the meeting with Metsäliitto. The next step was for the participating companies to go over these documents and give their comments and ideas. We arranged a meeting with the representatives of the companies for the beginning of May. The agenda of the meeting was to go through some key figures and to try to find some common processes between companies.

The second on-site visit was arranged at Finnair. The representatives of all companies were present. The idea was to get together and decide on a metric that could be used in benchmarking. The meeting was successful and produced a lot of new ideas. We decided to use the price of a payslip as a common metric for the questionnaire. The next meeting was planned for June. This meeting changed the agenda of benchmarking; we decided to concentrate on costs instead of more detailed processes.
The third visit was arranged at Vierumäki at the beginning of June. All the companies were present. We went over a new cost comparison sheet (appendix 1) I had created for benchmarking. We decided to move forward with this sheet.
7 Benchmarking with other companies

The actual benchmarking effort started after our meeting at Vierumäki. I had presented the companies with a cost comparison sheet, which was based on a payroll department’s budget. The idea of the sheet was to give out some simple metrics that could be used in benchmarking. The metrics would be the price of a payslip and the ratio of payslips per payroll clerk. These would provide the basis for benchmarking.

Everyone agreed that a basic cost comparison between companies would be the most efficient way to look at competitiveness. The comparison divided each company’s budget to certain areas. The areas were:

- Salaries
- Rent
- Consulting
- Telephone expenses
- Mail expenses
- Office supplies
- IT costs
- Travel
- Training fees
- Meeting expenses
- Others

These were all decided as the common scope for the firms participating in benchmarking. Every company would give out these costs for the comparison.

We didn’t want to go on a procedure level as was done in the testing phase. The questionnaire used in testing would provide Stora Enso with some useful material though.
7.1 Participating companies

The benchmarking research involved five major Finnish companies. The following paragraphs will give an overview of the participating companies and some information about their payroll departments. Stora Enso’s company profile can be found in chapter 1.

7.1.1 Finnair

Finnair is one of the world’s oldest airlines. It was established in 1923. Finnair’s operations focus on transporting passengers between Europe and Asia, via Helsinki. Finnair Group’s operations are passenger traffic and leisure traffic, technical and ground handling operations, catering, travel agencies and also travel information and reservation services. Finnair has approximately 9500 personnel. The Finnish government owns 55.8 percent of Finnair’s shares (Finnair, 2009).

In the year 2008 Finnair carried 8.3 million passengers. In the same year Finnair reported a turnover of 2.3 billion euros with an operating profit of 7 million euros (Finnair, 2009).

Finnair’s payroll department consists of 29 people. They have 20 payroll clerks, with 14 of them working in line organizations. Finnair uses several different systems in its payroll operations, which make its model hard to describe. SAP HR is one of the systems they use. Finnair has 9300 employees in its Finnish payroll calculation (Finnair presentation, 2009).

7.1.2 YLE

YLE is the Finnish Broadcasting Company. It produces television and radio programming on the public sector. Its main shareholder is the Finnish government. It had a turnover of 380.5 million euros in 2008. It made an operating profit of 0.7 million euros (YLE, 2009).
YLE has a total of 10 people working for its payroll department. 9 of them are payroll clerks. YLE uses SAP HR in its wage calculation. YLE has a lot of workers with short-term contracts. YLE can have from 2000-8000 freelance workers in a calendar year. This explains for the high amount of calculated personnel, 12 619, for such a small payroll department (YLE presentation, 2009).

7.1.3 Metsäliitto

Metsäliitto is an international forest industry group operating in 30 countries. Metsäliitto Group’s five business areas are Wood Supply, Wood Products Industry, Pulp, Board and Paper, and Tissue Papers. In 2008 Metsäliitto Group’s sales total was 6.5 billion euros and it had an operating profit of 2 million euros. It employs 16 000 people (Metsäliitto, 2009).

Metsäliitto employs 21,5 people in its payroll organization with one people splitting time between HR and payroll. 18,5 work as payroll clerks. Its main payroll software is MBP, which is provided by Logica. It also uses SAP HR as storage for master data. Metsäliitto’s payroll functions have a total of 7 800 calculated personnel (Metsäliitto presentation, 2009).

7.1.4 Neste Oil

Neste Oil Corporation is a refining and marketing company that concentrates on low-emission, high-quality traffic fuels. Neste Oil’s refineries are based in Porvoo and Naantali and have a combined crude oil refining capacity of approximately 260 000 barrels a day (Neste Oil, 2009).

It the year 2008 Neste Oil had a turnover of 15.0 billion euros. It reported an operating profit of 186 million euros (Neste Oil, 2009).

Neste uses Fenix as its payroll system. It is provided by Logica, which is also the provider for Metsäliitto’s software. Neste also uses three different smaller systems for travel and master data storage. Neste has a total of 9,5 personnel working for
payroll, with 7.5 payroll clerks. They have a total of 3 850 workers in its payroll (Neste Oil presentation, 2009).

### 7.2 Key figures

The key figures that were used in benchmarking were the following:

- The number of payroll clerks
- Number of payslips/year
- Payslips/payroll clerk
- Payslips/personnel
- Cost of a payslip
- Adjusted budget

It needs to be noted that the adjusted budget of payroll consists of the types of costs that all the companies have in common. Some costs were left out of benchmarking or added to the comparison, so that the budgets would be comparable. This included adding IT costs, but also extracting health costs. All in all, the adjusted budget should give out a fairly realistic value that is close to the actual budget of the payroll department.

Payslips/payroll clerk and payslips/personnel were calculated by dividing the total amount of payslips with the amount of payroll clerks and personnel. The cost of a payslip was calculated by dividing the adjusted budget with the total amount of payslips.

The following table shows the key figures for each company:
Figure 13. Key Figures

### 7.3 Common processes

It is important in benchmarking to find common processes. In a payroll environment it can be difficult. Different companies can use multiple systems compared to a company that uses only one. But the common nominator is costs. Finding the common costs was important for benchmarking.

YLE and Metsäliitto were particularly important comparisons for Stora Enso. YLE in the case, that they use the same payroll system, SAP HR, and Metsäliitto as a competitor in the same industry.
8 Benchmarking Analysis

When analyzing the results, it is important to take the size of the company into account. That is why most of the figures are divided by the amount of personnel. The following table demonstrates the adjusted budgets of the payroll departments.

<table>
<thead>
<tr>
<th>Company</th>
<th>Adjusted Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsäliitto</td>
<td>1 945 438</td>
</tr>
<tr>
<td>Stora Enso</td>
<td>2 423 091</td>
</tr>
<tr>
<td>Neste Oil</td>
<td>1 028 096</td>
</tr>
<tr>
<td>Yle</td>
<td>1 596 086</td>
</tr>
<tr>
<td>Finnair</td>
<td>1 859 153</td>
</tr>
</tbody>
</table>

Figure 14. Adjusted budgets

As seen in the table Stora Enso has the highest adjusted budget of the companies, thus meaning it also has the highest costs. These budgets can’t be straightforwardly compared because of the differences in personnel size. Neste Oil has the smallest budget of the compared payroll departments.

The following table contains information about the amount of personnel at each payroll department:
This table should be comparable with figure 14. Finnair has a rather high number of personnel compared to its budget. One of the reasons to this is Finnair’s complex payroll model. Finnair has 14 payroll clerks working in line organizations, which makes the amount of personnel high. Stora Enso’s personnel amount of 32 contains only 22 payroll clerks. This is due to the payroll accountant work done at the payroll department. In the other companies this kind of work is mostly done in separate accounting units. The following table describes the amount of payroll clerks at each company:
8.1 Costs

The main and most important figure used in cost comparison was the cost of a payslip. This would be calculated by dividing the costs of payroll with the amount of payslips handled in a year. This would give each company a price for one payslip. The following table demonstrates the costs that go towards one payslip:
Finnair has the cheapest payslip at the price of 9.03 euros. Stora Enso’s performance in this area is good. It has the second most competitive payslip price with 10.42 euros.

In terms of this table it can be said that Stora Enso’s payroll department offers a cost-efficient service. Metsäliitto has a slightly higher price than Stora Enso, with Neste Oil having the highest priced payslip.

YLE has the highest priced payslip. This is due to their high IT costs. YLE’s different kind of model is another reason for the high result in this area. This is because of the large amount of freelance workers that work for the firm. This produces a rather small amount of payslips for a large amount of workers. Workers in other companies receive their wages at least on a monthly basis, but YLE:s different kind of model may produce only one payslip for a person in a calendar year. When analyzing the costs that go towards one calculated person, Yle has clearly the lowest costs:

![Payroll costs / worker](image_url)

**Figure 18. Payroll costs / worker**

This table shows that although YLE has high costs towards one payslip, its payroll costs towards one worker are clearly the lowest. This is because of the high amount of workers they have, over 12 000. As stated before, a lot of their workers
are freelancers and their work isn’t regular. This gives YLE only 7 payslips per calculated person as the following table shows:

<table>
<thead>
<tr>
<th>Payslips / worker</th>
<th>Metsäliitto</th>
<th>Stora Enso</th>
<th>Neste Oil</th>
<th>Yle</th>
<th>Finnair</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22.9</td>
<td>24</td>
<td>23.8</td>
<td>6.9</td>
<td>22.2</td>
</tr>
</tbody>
</table>

Figure 19. Payslips / worker

This table shows the difference in YLE’s payroll model. The other companies have workers that receive their wages on a regular basis, and it equals to approximately 22-24 payslips in a year. YLE has lots of one-time workers in their workforce, that aren’t regulars at the company. The difference in YLE’s model makes this comparison a bit unnecessary. It shows that the most important figure in benchmarking is in fact the price of a payslip. This table demonstrates that the figures for costs for one calculated person can’t be reasonably compared particularly if one’s model is considerably different.

8.2 System Performance

System performance between companies can be compared by the figures that payslips/payroll clerk and payslips/personnel give out. Costs of IT must also be taken into account when analyzing system performance.
Stora Enso gives out 232 480 payslips a year. This table can be directly compared to figure 15. The only exception is YLE because of its different model that produces a small amount of payslips for a large amount of workers.

The figure above describes payslips / personnel. This is a key figure when considering system performance. It gives out an interesting result. Neste Oil tops this list, while at the same time it has a high cost of a payslip. Stora Enso doesn’t fare that well in this comparison, finishing third. In this figure Stora Enso’s amount of personnel includes payroll accountants, which makes the amount of
payslips / personnel lower. YLE makes a good result on this table. Although its amount of payslips is small, they only have 10 people working at their department, thus making this number competitive. The following table only involves payroll clerks.

<table>
<thead>
<tr>
<th>Company</th>
<th>Payslips / Payroll Clerk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsäliitto</td>
<td>9676</td>
</tr>
<tr>
<td>Stora Enso</td>
<td>10567</td>
</tr>
<tr>
<td>Neste Oil</td>
<td>11090</td>
</tr>
<tr>
<td>Yle</td>
<td>9689</td>
</tr>
<tr>
<td>Finnair</td>
<td>10 300</td>
</tr>
</tbody>
</table>

**Figure 22. Payslips / payroll clerk**

This figure bumps up Stora Enso’s number because of the before mentioned reason about payroll accountants. Neste Oil still stays on top, while Finnair’s number is considerably better.

Neste Oil uses a different system than Stora Enso and according to these tables it is more efficient. But at the same time figure 17 about the cost of a payslip must be taken into account. These two tables balance each other out and give Stora Enso a pretty good overall result.

Metsäliitto uses a different system compared to Stora Enso and YLE. Based on this table, Metsäliitto’s Logica and Neste’s Fenix give out a better performance than SAP, but not considerably. Metsäliitto and Neste also share the same software provider, Logica.

But in benchmarking it isn’t always that simple. This can also be the reason of the other company having more skilled employees and better common practices. IT costs must also be compared; they are shown in the following table.
Figure 23. IT Costs / personnel

This table sheds some light into the previous figure about payslips / personnel. While Neste Oil has the best system performance in payslips, it also has quite large IT costs / personnel. Finnair also has high costs. Finnair uses multiple systems and has a complexed system model. This could be one of the reasons for that.

Stora Enso once again fares pretty well in this table, while Metsäliitto is the best company when considering system performance. It is able to produce a good amount of payslips with a rather small amount of costs.

YLE has the largest IT costs. This table has to be treated with some consideration though. YLE has just gone through a major vendor change, which produces high costs. It also can be debated that YLE’s amount of personnel might be a little too low for this comparison. There might be some costs in that area that could be targeted towards a larger amount of personnel, than the 10 working at the payroll department.

These two figures demonstrate that Stora Enso’s SAP solution and system model is working rather well. Changing it would be a long process that would involve significant entry costs. It could bring some costs down in the long run, but in my
opinion it wouldn’t be worth the effort. The current performance can easily be bettered with training and education.

The current turbulent situation of the company plays a major role in future decisions. A large IT project involving the acquisition of a new human resources software wouldn’t be a possibility.

8.3 Overall results

The results showed that the tables seem to balance each other out. When it comes to costs, Finnair and Stora Enso have the most efficient solutions. Neste Oil didn’t fare that well in the cost comparison, but topped the system performance list.

Neste Oil achieved best system performance by having reasonably large IT costs. Stora Enso’s performance was steady in each category, with no highs or lows. Finnair also did well, thus having high IT costs. Metsäliitto fared well in the IT area as well.

This shows that these firms excel in different processes. The idea of benchmarking is to find these best practices and bring them to use. This comparison gives Stora Enso some valuable data, and might make them consider their system model and software, but as mentioned before the current situation and high costs should lead them away from totally changing their model.

It has to be taken into account that benchmarking isn’t always that simple. By comparing a table it can not be simply concluded that company A has better system performance than company B. However these results do give out some direction as to how the situation between these companies is at the moment. YLE’s situation has to be thought in this way. It’s different type of payroll model makes its performance seem low in certain categories, although it isn’t that bad.
I believe that the expectation on Stora Enso’s part when starting the comparison was that its SAP based system model would bring up large costs, however it didn’t. SAP is a large firm, so it is understandable that it has slightly higher costs compared to Metsäliitto’s and Neste Oil’s HR software, that are provided by smaller companies. Based on this survey there shouldn’t be too much worries about the current system’s competitiveness and performance at Stora Enso.

Stora Enso’s heavy presence of payroll accountants must be taken into account. All of the other companies don’t participate as much in payroll accounting as Stora Enso. Their accounting is handled in their own controlling or accounting departments. I attempted to take that into consideration, when deciding on the scope of the survey.

The following table shows an overall performance chart of the companies. It is based on the price of a payslip and the amount of payslips a payroll clerks calculates in a company. The best result is achieved at the top left corner, while the worst is in the lower right corner.
This table shows that four companies are fairly close to each other. Some sort of a variation must be taken into account when concluding benchmarking. So because of that it is hard to say, which of the four companies has the best overall performance. On the base of this table it would be Finnair, but Stora Enso also fares very well. One company stands out, and that is YLE. Its high costs in IT make its price of a payslip a lot more expensive than the other companies.

However YLE still has good scores when comparing the price of a payslip for one calculated employee, although the main reason for this is the before mentioned freelance workers, that do not perform regular work for the company. The other four companies have approximately the same kind on figures but YLE’s are somewhat different.

8.4 Sensitivity Analysis

The idea of the sensitivity analysis is to find out how certain results changed if parameters in the economic model were altered. In this example the change comes in the shape of the amount of payroll clerks. I will demonstrate the results that Stora Enso would have, if their payroll staff was downsized by five personnel.

It is clear that these results will give out a more cost-efficient result, but will also add to the workload of the payroll clerks. It is debatable if this change would be necessary. At the moment in my opinion it wouldn’t be.

Stora Enso is currently cutting over 2000 jobs in its administration. In payroll this will first show in added job responsibilities. With downsizing, comes layoffs, and this transforms to a lot of work for clerks. But in the future, when the downsizing is over, a lighter payroll staff could work.

8.4.1 Costs

When downsizing personnel, obviously costs are also cut. If Stora Enso where to have 17 payroll clerks instead of 22, it’s price of a payslip would come down from
10.42 euros to 9.47 euros. The following table demonstrates the new value of the price:

<table>
<thead>
<tr>
<th>Company</th>
<th>Cost of a payslip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsäliitto</td>
<td>10.87</td>
</tr>
<tr>
<td>Stora Enso</td>
<td>9.47</td>
</tr>
<tr>
<td>Neste Oil</td>
<td>12.36</td>
</tr>
<tr>
<td>Yle</td>
<td>18.30</td>
</tr>
<tr>
<td>Finnair</td>
<td>9.03</td>
</tr>
</tbody>
</table>

![Cost of a payslip](image.png)

**Figure 25. Price of a payslip (2)**

The new price would be a lot closer to Finnair’s price of 9.03 euros. Cutting five payroll clerks would also bring down personnel costs by approximately 221 000 euros, thus making Stora Enso’s payroll department more cost efficient.

### 8.4.2 System Performance

When considering system performance with lighter personnel, the amount of payslips a payroll clerk handles will of course go up. This might give a wrong perspective on the actual performance of the system. This table mostly shows the fact that there would be considerably more payslips / payroll clerk to calculate.
The future situation might be different. The amount of payslips handled at the payroll department should be decreasing because of large layoffs. In the long term this will produce less payslips because of fewer workers. Stora Enso can use this figure as a good indicator for the amount of personnel it should have in order to stay competitive. It should be able to keep the ratio of payroll clerks and payslips at the same number as it has now.

### 8.4.3 Overall Performance

When concluding sensitivity analysis with the projection being -5 payroll clerks, the overall performance of Stora Enso would be the following:
Stora Enso would now have the best performance of the companies. However the sensitivity analysis can be a bit naïve, so probably too much shouldn’t be read into this. But this shows why sometimes downsizing can make a big effect. The negative sides to downsizing can change the outcome of this table considerably, but the idea of this analysis is to focus on concrete numbers only.
9 Conclusion

Payroll calculation is a complicated process that involves many small procedures. It is hard to establish a straight-forward process for payroll calculation. It involves lots of checking and control. Sometimes it even appears that some of this work is unnecessary and takes time away from possibly more important procedures.

The current system SAP HR is used in payroll calculation and payroll accounting. The HR module has many good qualities when considering payroll. One of the most important functions is the chance to calculate retroactive salaries. The system can easily add compensation to an employee’s next salary if something was missed during the previous payroll period.

Changes to the current system and its provider would acquire too much costs and resistance from the workers. The previous change from the old system to SAP HR was carried out in 2002-2004, and changing the system again in such a short time span would not go well with the employees. The current system has its problems, but all in all it is very suitable for payroll.

Stora Enso’s Finnish payroll hasn’t been happy with the current provider and the lack of freedom in decision-making. However changing to a different provider and possibly a different system model would require large organizational changes. These would be hard to realise in a company that has a distinguished corporate culture. Costs would presumably be high as well. The current financial situation of the company would definitely become a major hurdle.

The payroll calculation process can be complicated to document. It has many variables. The current payroll clerks have a good idea of how the payroll process and the payroll system work. Moe et al. (2005) believe that knowledge and experience about the system brings competitive advantage to a company. Porter (1996) also believes that using an ERP system in distinctive ways that enable distinctive outcomes can promote competitive advantage. So in light of these
findings, changing a system wouldn’t necessarily add competitiveness, but knowledge and training about it will.

Major changes to the current process or the system would probably bring some resistance from the clerks. I believe that minor changes can be done to make the payroll process more efficient, but changing the process completely wouldn’t benefit the company in a clear way.

Benchmarking showed that Stora Enso’s performance in terms of cost-efficiency and system performance fares well compared to other major Finnish companies. Stora Enso has a competitive price of a payslip. Stora Enso’s system performance is also competitive. The only way for the company to produce a higher number in payslips / payroll clerks is downsizing. In the future Stora Enso needs to keep an eye on the ratio of calculated personnel and payroll clerks. At some point downsizing is inevitable at the HR Finland Service Center as well, because of the future layoffs at Stora Enso’s Finnish functions.

Setting common practices can be a solution for improving system performance and speeding up processes. Some payroll clerks do unnecessary tasks when handling payroll, thus taking a lot more time than others. Some of this isn’t bad because of the nature of the job. Accuracy is a must in the payroll business. But too much checking and controlling produces a heavy workload on payroll clerks and adds up to higher costs in terms of overtime pay.

### 9.1 Suggestions for future development

Testing showed that payroll clerks have to use a lot of time correcting errors or contacting line managers about hours that haven’t been approved or marked correctly. Payroll clerks have to contact line managers by email or phone if some hours haven’t been approved. One suggestion for eliminating this problem would be to make line managers more involved in this process. At YLE line managers go through employees’ time sheets by running a check in SAP, before sending them to payroll clerks. This way line managers see the possible errors and can correct
them, thus eliminating some unnecessary work from payroll clerks. However this might be easier to realize in the media business than in the forest industry. The prevailing culture within the forest industry seems to be a bit old-fashioned and possibly against these types of changes.

Another suggestion would be to hire time managers. This would eliminate the problem discussed above completely. Germany has this kind of a system. They use time managers that check the employee’s hours from SAP after the line managers have approved them. The time manager’s job is to correct every error before transferring the information to head users and payroll clerks.

Bringing in time managers would save up time and resources. It would also mean that time evaluation wouldn’t have to be done in payroll. This would however require creating positions for time managers to different areas of payroll. Some of the payroll clerks could be reassigned to these duties, thus making it possible to avoid substantial layoffs. This would also decrease resistance towards a change in the organizational structure.

Stora Enso has recently tried to make its organization more agile. Time managers wouldn’t most likely be a part of the payroll organization. Making positions for time managers would also achieve Stora Enso’s goal of making the organization lighter.

The current process involving entering new employees takes up unnecessary time. This is because it involves two actors, one from human resources and the payroll clerk. The payroll clerk must wait for the HR person’s clearance before starting to enter new data to the system. Sometimes the process can be very slow. Payroll clerks will receive information about a new employee, but HR might not be able to enter the new person to the system immediately. It should be considered whether one actor could be responsible for this whole process. One possibility would be to shift the whole process to the HR workers, thus giving the payroll
personnel more time to focus on other tasks. This is just one example on how to make processes more simple and effective.

More SAP training is needed in units if the current system and organizational structure is maintained. The mistakes made in units have to be corrected by the payroll clerks. Training could decrease errors in CATS time sheets.

Researching best practices for different SAP transactions and reports is also an important task. It is critical to find ways to use SAP more effectively. There has been some work in a form of a project on this particular subject in the payroll department. Changing the way some transactions and procedures are done require commitment and adaptation from the payroll clerks. Some resistance might be found on this front, but it should be stressed that in the long run it will benefit the company and its employees.

Conducting benchmarking should benefit Stora Enso in the future. Stora Enso is able to see and compare their performance and cost-efficiency to some of the largest Finnish companies. Stora Enso should be encouraged by these results. It fared well in the comparisons. It can use the numbers from benchmarking in order to sustain its competitiveness in the future.

9.2 Future Scenarios

In my opinion there are three different scenarios for Stora Enso’s Finnish payroll when considering future action. They are:

1) Maintain the current provider and system
2) Change provider/system
3) Outsource payroll – Hire an Application Service Provider

Scenario number one is the most likely one to occur. The current provider and system can offer a good solution that has been working for the last seven years.
With some minor corrections to the system and possibly to the organizational structure, this would be a good choice for the company.

The costs of the current system model seem to be rather competitive. Keeping with the Global SAP system should be a good decision for Stora Enso. Even though there is less freedom for decisions, it still offers a good and cost-efficient solution. The current system is well known with payroll clerks, and should work fine in the future.

Scenario number two would require a lot of time and resources. In the current situation this is very unlikely to happen. Changing the provider could work, if a different provider that knows the industry can offer a solution that allows Stora Enso to maintain the same system. If a reasonable offer from a provider would be brought to the table, it could be cause for consideration. Changing the system however would not be a smart idea in my opinion. The payroll clerks have learned to use SAP HR and it offers good functions when talking about the payroll perspective.

Outsourcing would be unlikely. This option would of course require major layoffs and shift control of payroll to a third party. Switching to an application service provider would require a high initial investment. Stora Enso would still have to maintain payroll accounting services, thus all of the costs of payroll wouldn’t be cut.

Stora Enso must now decide in which direction it wants to go. The benchmarking effort done in this thesis has now gone past the integration stage. It means that the critical findings have been done and next the decisions must be made.

One course of action can be no action at all. This will be the most likely choice. At the moment it seems like the smartest and most cost-efficient action. Getting a new vendor or HR software would create huge initial costs, and right now the company can’t afford to do that. Benchmarking results have shown that the
current performance of the company compares well with other major Finnish organizations.

At the same time it must be said that there is some variation in the number’s found in the benchmarking study in this thesis. Mainly because of time and budget constraints some of the numbers might not be the exact ones. But in any case this study should give a good idea to the participating companies about their performance.
10 Summary

The main focus of this thesis was on benchmarking. Benchmarking between companies proved out to be a slow and changing process in itself. The lack of a common idea for a questionnaire and for comparison hindered progress.

The objectives for benchmarking changed many times. First we went into smaller detail by describing all processes. From that we realised that it would be hard to perform a questionnaire on such a deep level. At first the objective was to find out about the use of time.

After talking to companies, costs became more important. The questionnaire about the use of time was useful for the company itself though. But in the end it all comes down to costs, so on a larger scale selecting costs as the main variable was a good and satisfactory choice for the participating companies. In the end the comparison went well and provided companies with important data.

In this thesis I also focused on some important processes that payroll clerks perform at the Stora Enso HR Finland Service Center. The survey about the use of time had a small amount of participants, but it gave the company some ideas about improvements that could be made in the future.

The theoretical part of this thesis focused on benchmarking and choosing a payroll vendor and software. The results of the empirical part proved that Stora Enso doesn’t need to consider changing its vendor or software, as the current one produces a competitive result.

I believe that Stora Enso benefited a lot from benchmarking with other high profile Finnish companies. They formed new relationships that allow them to communicate and share information in order to make payroll more efficient. The benchmarking results gave the company a good idea on what areas to improve and what areas are done well at Stora Enso HR Finland Service Center.
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**Interviews**

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Appendix 1: Cost comparison sheet

<table>
<thead>
<tr>
<th>Yritys x</th>
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</thead>
<tbody>
<tr>
<td>HENKILÖSTÖ</td>
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<td>* Payroll</td>
</tr>
<tr>
<td>* Ajenhallinta</td>
</tr>
<tr>
<td>* Pelkkakirjanpito</td>
</tr>
<tr>
<td>* Kehittyvä johto</td>
</tr>
<tr>
<td>* Muut</td>
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<tr>
<td>VUOKRAKULUT</td>
</tr>
<tr>
<td>* Ulkopuoliselle maksuttu</td>
</tr>
<tr>
<td>VIERAAT TYÖT + KONSULTOINTI</td>
</tr>
<tr>
<td>* Konsultti/palkkiot</td>
</tr>
<tr>
<td>* Muu vieras työ</td>
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<tr>
<td>PUHELINKULUT</td>
</tr>
<tr>
<td>POSTIKULUT</td>
</tr>
<tr>
<td>TARVIKEKULUT</td>
</tr>
<tr>
<td>TIEOHALLINTO</td>
</tr>
<tr>
<td>* Oma tietohallinto</td>
</tr>
<tr>
<td>* Ulkopuolinen tietohallinto</td>
</tr>
<tr>
<td>* Ulkopuolinen infra</td>
</tr>
<tr>
<td>* Lisenssit</td>
</tr>
<tr>
<td>* Tietoliikennekulut</td>
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<td>MATKAKULUT</td>
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</table>

| YHTEENSÄ |
| Paiakkuitien määrä |
| PALKKAKUITIN HINTA |
| Palkanlaskijat |
| PALKKAKUITIT/PALKANLASKIJA |
| Henkilöstö yhteensä |
| PALKKAKUITIT/HENKILÖSTÖ |
| Laskettavien ilm |
Appendix 2: Questionnaire used in testing

Testilmakseen käyttöohje
- Arvioitko tietäväksesi, että puhevanen tekee tässä vaiheessa (%)?
- Ted homelessness yleisennytta % - onko se yli 100 %?
- Arvioitko puhevan erityistä tekijässä
- Ted homelessness on yli 8 %?

Kommenttia, kuten 16-vuotiaan puhevanen on osa mainellun varastaa.

Kuush plihtystyrial

Tänään

Taulukko

testilmakseenkatytohjere.com

MUIUT

Tiedustelut

71
Appendix 3: Original Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>Yes</td>
<td>No</td>
<td>Maybe</td>
</tr>
<tr>
<td>Question 2</td>
<td>Yes</td>
<td>No</td>
<td>Maybe</td>
</tr>
<tr>
<td>Question 3</td>
<td>Yes</td>
<td>No</td>
<td>Maybe</td>
</tr>
</tbody>
</table>

**Notes:**
- Yes: Positive
- No: Negative
- Maybe: Neutral
Appendix 4: Explanation of terms in the original questionnaire

**Bjukaytöölgysel - Termen sääliikse**

**AV:**
Ammattityöntekijän jasennusaker

**CAD/CAM liidad:**
CADD/CAM-liidad ajamalla SAP-lista saadaan sivisille työtehtäviksi CATS-ille käytetä työväenyksykset, siltaavuuspunkt, tarvittavat, liitetty neka annostellinen laskenta. Nimitellään liitettä myös sivisille erikoisesin työkyseermäinen ja

**CATS:**
Työtehtävätihoin hankkin työkaluina SAP:issä, johon kohdistaa annostellin polkeutu ait yh. ja polkeutumattu. Työntekijä liittää työ, ja polkeutumattu liitetään siltaavuuspunkt, joka on jaa valmistust梭 ei. Esimerkkejä hankkin työkaluja (ekon. CATS in maapallo työkaluja). Polkeutumattu työntekijä liitetään myönnettäminen tenta liikauksia

**F. Blue:**
SAP:n pakakkakseen tasoissa Stora Enson arvokset on jaa hankkin työkaluinaan liitetyn kannan sivu. Esimerkkejä Stora Enson Packaging: FI 15 Harmaat, FI 16 Laht, F1 7 Rovesi, FI 18 Kristianinkuukuni, Pakatkääsköiden laskettavan maapallon, joka on jaa valmistust梭 ei. Härkkäläinen käännös hankkin työkaluinaan

**Kausalpanien ed:**
SAP liitä arvokset taso, joka näyttää tervoilta vastaakin pakkaus ja polkeutu ait yh. ja polkeutumattu. Työntekijä liitetään polkeutumattu liitetään siltaavuuspunkt, joka on jaa valmistust梭 ei. Esimerkkejä

**PATIN:**
Matalapakossa-panosluokien tarjoama laatus, jolla muodostetaan työkaluunaan 37 kaarin. Patasin laajakaan

**PSK:**
PIK on yleisesti annettu polkeutumattu. PIK:n määrää ed. tekoiltoihin käännösten sivuvaltaa

**SharePoint:**
Internetista yleisesti tietojen toivotusten, johon vieeän netistä

**TI:**
Tiimihenkilö

**IT:**
Työntekijä

**Lyyt:**
Työntekijän alitulokset

**Työkalu:**
Stora Enson työkalu ja liitetään hankkin työkaluinaan

**Varamat:**
Kansainväliset vallat

**ZLOP:**
ZLOP:in valo käännös the act.
Appendix 5: Document containing 15 larger processes for benchmarking

**Palkkahallinnon benchmarking**

Eri yrityksillä palkkahallinnon rakenne luonnollisesti vaihtelee ja ajatus olisi kerätä kaikki prosessit, joita yrityksillä alueella on ja se jälkeen katsoa mitkä ovat yhteisiä vertailuun osallistuville yksiköille. Näistä tehtäisiin vertailu mutta yritykset toki itse tekevät halutessaan koko omasta alueestaan.

Stora Enson ja Metsäliiton tapaamisessa listattiin nopeasti seuraavia prosesseja – eroja jo näidenkin yhtöiden välillä on useita.

1. **INFRASTRUKTUUURI**
   - Tietojärjestelmän kulut (poistot & korot tai leasing)
   - Toimitilat
   - Vuokrattu tila
   - Oma tila

2. **TIEDON YLLÄPITO = RAKENTEET**
   - Järjestelmän tietojen ylläpito
   - Henkilötietojen ylläpito
   - Payroll Data
   - Sheemat ja ennusteet
   - Palkkasivukuluprosentit

3. **POIKKEUSTIETOJEN SYÖTTÖ JÄRJESTELMÄÄN/JÄRJESTELMIIN**
   - Esijärjestelmät ja niiden kulut
   - Poikkeamatiot (loma, sairaus, ylityöt yms.) syöttö
   - Kustannustiedot (työnumerot, kustannuspaikat, jne.)

4. **AJANHALLINTA**
   - Syötettyjen tuntitietojen laskenta
   - Simulointi (koeajo) & virheiden korjaus ohjelman kontrollien perusteella
   - Aikatietojen käsittely

5. **PALKANLASKENTA**
   - Varsinainen palkkalaskenta, jossa edellä tulkatut tunnit hinnoitellaan
   - Simulointi (koeajo) & virheiden korjaus ohjelman kontrollien ja muiden tarkastusten perusteella
   - Lasketaan perinnät ja pidätykset (ennakonpidätyys, TyEL-perintä yms.)

6. **PALKANLASKENNAN TULOKSET**
   - Pankkiaineisto, palkkalaskelma, palkkalista
   - Viranomaisraportit
Eläkeyhtö
Verottaja
Ay, Kela, jne.
Muut raportit
Palkkatilastot
Mercer tms.
Yksiköiden raportointi

7. PALKKAKIRJANPITO
Jaksotukset
Varaukset
Palkkatositeet
Psk-kulut

8. TES-OHJEISTUS
Yksiköiden koulutus eri työehtosopimusten soveltamisesta

9. ASIAKASSUHTEEN HOITO
Yksiköiden koulutus & informointi
Yhteistyön kehitys

10. OMA TIETOHALLINTO
Mitä oma IT- osasto tekee palkkahallinnon töitä
Mitä palkkahallinnon omat henkilöt tekevät IT-työtä
Järjestelmävirheiden käsittely

11. KONSULTIT
Konsulttien (Aditro, Arinso, Siemens, Gavli, Fujitsu, etc) kustannus
Yhteistyö konsulttien kanssa (kokoukset yms.)

12. TESTAUS
Muutosten testaus

13. KEHITYS
Kehityskustannukset (konsultit, yms.)
Oma kehitystyö (työ kokoukset, matkustus, jne.)

14. MATKAHALLINTO
Matkalaskujen tarkistus, koordinointi, yms.

15. MUUT PALVELUT
Kela-hakemukset
Tapaturmavaikutushakemukset
Eläkevakuutus
Taloushallinnon tuki
Budjetointi & kustannusseuranta
Ennusteet (kassaennusteet)
➢ Tulospalkkiot & optiot
➢ Lopputilien käsittely
➢ Lomautusilmoitukset / kassojen informaatio
Appendix 6: Original cost comparison sheet

<table>
<thead>
<tr>
<th>Model</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tbody>
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<td>150</td>
<td>180</td>
<td>200</td>
<td>250</td>
</tr>
<tr>
<td>Model 2</td>
<td>200</td>
<td>250</td>
<td>280</td>
<td>300</td>
<td>350</td>
<td>400</td>
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</tbody>
</table>

**Note:** The table above shows the original cost comparison for models Model 1 and Model 2 over a period of 6 years.
### Appendix 7: Stora Enso cost comparison

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
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<tbody>
<tr>
<td><strong>Stora Enso</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Henkilöstö</strong></td>
<td>1 418 091</td>
</tr>
<tr>
<td>* Ajanhallinta</td>
<td>390 546</td>
</tr>
<tr>
<td>* Palkkakirjanpito</td>
<td>488 181</td>
</tr>
<tr>
<td>* Kehitys + johto</td>
<td>195 273</td>
</tr>
<tr>
<td>* Muut</td>
<td>244 091</td>
</tr>
<tr>
<td><strong>Vuokrakulut</strong></td>
<td>15 000</td>
</tr>
<tr>
<td>* Ulkopuoliselle maksettu</td>
<td></td>
</tr>
<tr>
<td><strong>Vieraat työt + konsultointi</strong></td>
<td>30 000</td>
</tr>
<tr>
<td>* Konsulttipalkkiot</td>
<td>30 000</td>
</tr>
<tr>
<td>* Muu vierastyo</td>
<td></td>
</tr>
<tr>
<td><strong>Puhelinkulut</strong></td>
<td>12 000</td>
</tr>
<tr>
<td><strong>Postikulut</strong></td>
<td>100 000</td>
</tr>
<tr>
<td><strong>Tarvikekulut</strong></td>
<td>56 000</td>
</tr>
<tr>
<td><strong>Tietohallinto</strong></td>
<td>692 000</td>
</tr>
<tr>
<td>* Oma tietohallinto</td>
<td>55 000</td>
</tr>
<tr>
<td>* Ulkopuolinen tietohallinto</td>
<td>521 000</td>
</tr>
<tr>
<td>* Ulkopuolinen infra</td>
<td></td>
</tr>
<tr>
<td>* Lisenssit</td>
<td>100 000</td>
</tr>
<tr>
<td>* Tietoliikennekulut</td>
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</tr>
<tr>
<td><strong>Matkakulut</strong></td>
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</tr>
<tr>
<td><strong>Koulutuskulut</strong></td>
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</tr>
<tr>
<td><strong>Kokous ja edustus</strong></td>
<td>10 000</td>
</tr>
<tr>
<td><strong>Muut</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Yhteensä</strong></td>
<td>2 423 091</td>
</tr>
<tr>
<td>Palkkakuitien määrä</td>
<td>232 480</td>
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<td>22</td>
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<tr>
<td><strong>Palkkakuitit/palkanlaskija</strong></td>
<td>105 67</td>
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<tr>
<td>Henkilöstö yhteensä</td>
<td>52</td>
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<tr>
<td><strong>Palkkakuitit/henkilöstö</strong></td>
<td>7265</td>
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<tr>
<td>Laskettavien ikm</td>
<td>9 695</td>
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Appendix 8: Finnair cost comparison

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<tr>
<th>Category</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Henkilöstö</td>
<td>827,500</td>
</tr>
<tr>
<td>* Ajankiinto</td>
<td></td>
</tr>
<tr>
<td>* Päivity</td>
<td></td>
</tr>
<tr>
<td>* Palkkakirjanpito</td>
<td></td>
</tr>
<tr>
<td>* Kehitys + johto</td>
<td></td>
</tr>
<tr>
<td>* Yhteensä</td>
<td>827,500</td>
</tr>
<tr>
<td>Vuosikulut</td>
<td>82,652</td>
</tr>
<tr>
<td>* Ulkopoliselle maksett</td>
<td>82,652</td>
</tr>
<tr>
<td>Vieraat työt + konsultointi</td>
<td>0</td>
</tr>
<tr>
<td>* Konsultipalkkiot</td>
<td></td>
</tr>
<tr>
<td>* Muu viera työ</td>
<td></td>
</tr>
<tr>
<td>Puhelinlukut</td>
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<tr>
<td>Postilukut</td>
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<tr>
<td>Tarvikekulut</td>
<td>19,425</td>
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<tr>
<td>Tietohallinto</td>
<td>792,276</td>
</tr>
<tr>
<td>* Oma tietohallinto</td>
<td>0</td>
</tr>
<tr>
<td>* Ulkopolinen tietohallinto</td>
<td>782,091</td>
</tr>
<tr>
<td>* Ulkopolinen infra</td>
<td>324,000</td>
</tr>
<tr>
<td>* Lisenssit</td>
<td>10,185</td>
</tr>
<tr>
<td>* Tietoliikennelkulut</td>
<td></td>
</tr>
<tr>
<td>Matkakulut</td>
<td></td>
</tr>
<tr>
<td>Kouluuskulut</td>
<td></td>
</tr>
<tr>
<td>Kokoos ja edustus</td>
<td></td>
</tr>
<tr>
<td>Muut</td>
<td>0</td>
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<td>Yhteensä</td>
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<td>Palkkakuitit/palkanlaskija</td>
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<td>9,300</td>
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Appendix 9: Metsäliitto cost comparison

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<tr>
<th>Metsäliitto-konserni</th>
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<tbody>
<tr>
<td><strong>HENKILÖSTÖ</strong></td>
<td>1 339 185</td>
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<tr>
<td>* Ajankunnallista</td>
<td></td>
</tr>
<tr>
<td>* PYYHILLÄ</td>
<td></td>
</tr>
<tr>
<td>* Palkkalähteenpito</td>
<td></td>
</tr>
<tr>
<td>* Kehitys + Johto</td>
<td></td>
</tr>
<tr>
<td>* Yhteensä</td>
<td>1 339 185</td>
</tr>
<tr>
<td><strong>VUOKRAKULUT</strong></td>
<td>82 652</td>
</tr>
<tr>
<td>* Ulkopuoliselle maksettua</td>
<td>82 652</td>
</tr>
<tr>
<td><strong>VIERAAT TYÖT + KONSULTOINTI</strong></td>
<td>22 500</td>
</tr>
<tr>
<td>* Konsultipalkkiot</td>
<td>12 000</td>
</tr>
<tr>
<td>* Muu vierastyla</td>
<td>10 500</td>
</tr>
<tr>
<td><strong>PUHELINKULUT</strong></td>
<td>9 300</td>
</tr>
<tr>
<td><strong>POSTIKULUT</strong></td>
<td>128 000</td>
</tr>
<tr>
<td><strong>TARVIKEKULUT</strong></td>
<td>19 425</td>
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<tr>
<td><strong>TIETOAILINTO</strong></td>
<td>288 946</td>
</tr>
<tr>
<td>* Oma tiedothallinto</td>
<td>0</td>
</tr>
<tr>
<td>* Ulkopuolinen tiedothallinto</td>
<td>133 511</td>
</tr>
<tr>
<td>* Ulkopuolinen infra</td>
<td>129 322</td>
</tr>
<tr>
<td>* Lisenssit</td>
<td>144 710</td>
</tr>
<tr>
<td>* Tietoliikennekulut</td>
<td>10 725</td>
</tr>
<tr>
<td><strong>MATKAKULUT</strong></td>
<td>27 980</td>
</tr>
<tr>
<td><strong>KOULUTUSKULUT</strong></td>
<td>24 350</td>
</tr>
<tr>
<td><strong>KOKOUS JA EDUSTUS</strong></td>
<td>3 100</td>
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<td><strong>MUUT</strong></td>
<td>0</td>
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<tr>
<td><strong>Yhteensä</strong></td>
<td>1 945 438</td>
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<td>Palkkalähteen määrä</td>
<td>179 000</td>
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<td><strong>PALKKAKUITIN HINTA</strong></td>
<td>10,87</td>
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<td>Palkkalähteenpito</td>
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<td><strong>PALKKAKUITIT/PALKANLASKIJA</strong></td>
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<td>Henkilöstö yhteensä</td>
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<td><strong>PALKKAKUITIT/HENKILÖSTÖ</strong></td>
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*Laskettavien ikm* | 7 800 |
# Appendix 10: YLE cost comparison

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<td><strong>YLE</strong></td>
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<tr>
<td><strong>HENKILÖSTÖ (sosiaalikuluineen)</strong></td>
<td>450 380</td>
</tr>
<tr>
<td>* Payroll</td>
<td>302 380</td>
</tr>
<tr>
<td>* Ajankäyttö</td>
<td>58000</td>
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<tr>
<td>* Palkkalauttajalauta</td>
<td></td>
</tr>
<tr>
<td>* Kehitys + johto</td>
<td>90 000</td>
</tr>
<tr>
<td>* Muut</td>
<td>0</td>
</tr>
<tr>
<td><strong>VUOKRAKULUT</strong></td>
<td>0</td>
</tr>
<tr>
<td>* Ulkopuoliselle maksettu</td>
<td></td>
</tr>
<tr>
<td><strong>VIERAAT TYÖT + KONSULTOINTI</strong></td>
<td>55000</td>
</tr>
<tr>
<td>* Konsultipalkkiot</td>
<td>55000</td>
</tr>
<tr>
<td>* Muu vieras työ</td>
<td></td>
</tr>
<tr>
<td><strong>PUHELINKULUT</strong></td>
<td>6800</td>
</tr>
<tr>
<td><strong>POSTIKULUT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TARVIKEKULUT</strong></td>
<td>22000</td>
</tr>
<tr>
<td><strong>TIETOHALLINTO</strong></td>
<td>945 856</td>
</tr>
<tr>
<td>* Oma tietchallinto</td>
<td>821 76</td>
</tr>
<tr>
<td>* Ulkopuolinen tietchallinto</td>
<td>780 000</td>
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<tr>
<td>* Ulkopuolinen infra</td>
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</tr>
<tr>
<td>* Lisenssit</td>
<td>68680</td>
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<tr>
<td>* Tietoliikennekulut</td>
<td>15 000</td>
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<td><strong>MATKAKULUT</strong></td>
<td>116050</td>
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<tr>
<td><strong>KOKOUS JA EDUSTUS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TYÖTERVEYS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>MUUT</strong></td>
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</tr>
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</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>YHTEENSÄ</strong></td>
<td>1 596 086</td>
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<td>Palkkalauttien määrä</td>
<td>87200</td>
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<td><strong>PALKKAKUUITIN HINTA</strong></td>
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<tr>
<td>Palkkalauttajat</td>
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<tr>
<td><strong>PALKKAKUUITIT/PALKKANLASKIJA</strong></td>
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<td>Henkilöstö yhteensä</td>
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</tr>
<tr>
<td><strong>PALKKAKUUITIT/HENKILÖSTÖ</strong></td>
<td>8720</td>
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Laskettavien ikm | 12619
Appendix 11: Neste Oil cost comparison

<table>
<thead>
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<th>Neste Oil Oyj</th>
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</thead>
<tbody>
<tr>
<td><strong>HENKILÖSTÖ</strong></td>
<td>674,906</td>
</tr>
<tr>
<td>* Palkki</td>
<td>623,248</td>
</tr>
<tr>
<td>* Ajanhallinta</td>
<td>0</td>
</tr>
<tr>
<td>* Palkkalankirjanpito</td>
<td>0</td>
</tr>
<tr>
<td>* Kehitys + johto</td>
<td>0</td>
</tr>
<tr>
<td>* Muut</td>
<td>51,558</td>
</tr>
<tr>
<td><strong>VUOKRAKULUT</strong></td>
<td>0</td>
</tr>
<tr>
<td>* Ulkopuoliselle maksett</td>
<td></td>
</tr>
<tr>
<td><strong>VIERAAT TYÖT + KONSULTOINTI</strong></td>
<td>12,466</td>
</tr>
<tr>
<td>* Konsultipalkkiot</td>
<td>12,466</td>
</tr>
<tr>
<td>* Muu vierast työ</td>
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<tr>
<td><strong>PUHELINKULUT</strong></td>
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<td><strong>POSTIKULUT</strong></td>
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<td><strong>TARVIKEKULUT</strong></td>
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<tr>
<td>* Oma tietohallinta</td>
<td>119,387</td>
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<tr>
<td>* Ulkopuolinen tietohallinta</td>
<td>148,195</td>
</tr>
<tr>
<td>* Ulkopuolinen infra</td>
<td>0</td>
</tr>
<tr>
<td>* Lisenssit</td>
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</tr>
<tr>
<td>* Tietoliikennekulut</td>
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<td>Henkilöstö yhteensä</td>
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<tr>
<td><strong>PALKKAKUITIT/HENKILÖSTÖ</strong></td>
<td>87,55</td>
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Laskettavien ikm | 3,850