STOCKHOLM SCHOOL OF ECONOMICS

Department of Management and Organization

Master Thesis, 10 credits

Lean without machines

A study of the applicability of lean principles to an operation with HR-functions

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ABSTRACT

Lean principles have proven very successful within the domains of manufacturing. This has spurred research into the applicability of the principles to other types of operations, and initial results from the service industry have yielded promising results. Nevertheless the applicability of lean principles to many other types of operations is still unexplored. This thesis aims to remedy this by studying one such operation, namely an operation with HR-functions. The empirical results of this thesis indicates that lean principles can indeed be applied to one such operation, however many latent organizational and managerial factors have been identified that serve to impede this implementation.

Keywords: Lean thinking, lean production, human resource functions, flow, value streams, standardization, vertical information systems, management commitment

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Stockholm, 9th of December 2008

Lisa Sandberg and Dennis Kot Winge

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1. Introduction

Although the idea of seeing manufacturing as a series of processes has existed since early 16th century, the first person to ever successfully integrate an entire chain of production processes within manufacturing and thus master mass production was Henry Ford in 1913 at Highland Park, in Detroit, USA. Apart from his famous moving assembly line, he also applied standardization and continuous flow to his production lines. As these methods together with special-purpose machines could fabricate vehicles within hours instead of days, success was a fact. However there was a problem, Henry Ford's production system could not handle any variations and the Model T Ford that was produced according to it, could only be produced in one color and with one type of chassis for a period of 19 years. As a famous quote by Henry Ford reads:

"Any customer can have a car painted any colour that he wants so long as it is black."
(Ford & Crowther, 1922)

As times changed, customers' demands became more complex and they wanted more variety. This would be the beginning of the end for Henry Ford's classic mass production lines. It would be nearly 40 years before someone came up with a solution to handle variety. Two Japanese engineers at Toyota, Kiichiro Toyoda and Taiichi Ohno, had visited the Ford's Rogue plant in the United States to study their production methods. Upon their return they quickly got to work trying to implement the Ford production methods at home, however they soon ran into problems and came to the realization that the same methods and principles did not work in Japan. They immediately started working on a solution that would work for them and combined the advantages of having both short throughput times whilst providing a wide variety in the product offering. This was the beginning of what would later be called the Toyota Production system (TPS). The system was focused on the entire value creating process and on how a steady flow could be created within manufacturing processes. Measures to achieve this included right-sizing and self-monitoring machines to ensure both the right volume and the right quality. Process mapping was also conducted, to line up the machines in the right order and reduce set-up times. Toyotas success was fact; they managed to produce a greater variety of products at a lower cost and with higher quality than any of their competitors.

The rest of the world was left behind asking how Toyota could be so successful. This would be the beginning of the research that lead up to what we today call *lean manufacturing* (Womack, Jones and Roos, 2007) and *lean thinking* (Womack & Jones, 2003). Today these principles have already shown to be incredibly successful within the manufacturing industry, which has led to research surrounding the application of the principles within other types of operations. Numerous articles and research papers have already been published when it comes to the application of these principles within the service industry, and this has given birth to a new field called lean services. However the applicability of these principles has not yet been tested on any operations containing HR-functions. That is what this thesis aims to remedy.

2. Problem discussion

This section aims to explain why this specific field of research and case subject was chosen and why it is of interest to conduct further investigations within the subject. The answers to these questions will be given on a theoretical, practical and personal level.

The *principles of lean production* are now a quite established set of theories. Lean principles have proven very successful within the domains of manufacturing (Womack et al., 2007) and initial research points to similar results when it comes to its use within the service industry. (Bowen & Youngdahl, 1998) However when it comes to the application of lean principles outside of manufacturing the field of study is still in its infant nature, thus on a theoretical level this drives us to want to learn more. No study has been previously performed on the use of lean principles within operations containing HR-functions. This thesis aims to remedy this by giving a first glimpse into the applicability of lean principles in one such operations and try to identify problems that could impede its use and the possible effects of a successful implementation.

Looking beyond the theoretical excitement surrounding the phenomenon of lean, we shall instead focus on what the principles actually can achieve in practice. Studies performed thus far within the manufacturing industry document great improvements in productivity, quality and the operations' ability to handle variability. (Womack et al., 2007) Initial studies surrounding the use of lean principles within service industries yield similar results. (Swank, 2003) This raises the question; shouldn't the use of lean principles on other types of operations in practice yield similar positive results?

On a personal level being students with majors within management and specializations within operations management, the field of production and operations management research is of great interest. As much of our education within operations management has focused on lean principles and related theories, and since we were fortunate enough to visit Scania as part of a course we got a firsthand glimpse into a lean production process which left us wanting to learn more. One of us was also fortunate enough to get a job at Scania during the spring and summer of 2008, working in one of the sub-departments of Scania's Human resource support department (the H-department). This made us aware of the fact that the H-department was looking to implement lean principles on their operations. Thus when we first presented our idea for a thesis to Scania they were very interested in our proposition, and this is how this master thesis came to life.

3. Literature mapping

This section aims at mapping the relevant theories for this thesis. It will focus on the original lean principles, but also briefly elaborate on some of the lean service studies. This mapping does not claim to be exhaustive when it comes to identifying all the research papers and books that have been printed regarding the lean principles, it rather gives the reader an initial understanding of the theories that will be used in the continuance of this thesis.

For the last 50 years, Toyota and the Japanese automotive industry as a whole have outperformed all their competitors displaying continuously growing market shares when the rest of the world has experienced declines. (Womack et al., 2007) The rest of the world was left asking: What makes Toyota and the Japanese automotive industry so successful?

The first part of the answer to this question came when the Toyota production system and lean production as a concept was studied and documented by Womack et al., (1990) in "*The Machine That Changed the World"*. This book provided a wealth of benchmarking data, together with a list of production principles employed by Toyota. The purpose of the book was to show managers that there was a better way to organize and manage customer relationships, supply chains, product development, and manufacturing operations. (Womack & Jones, 2003) The book detailed several operating principles, these principles are:

- Elimination of waste
- Zero defects
- Pull instead of push
- Multifunctional teams
- Decentralization
- Vertical information systems
- Continuous improvements

With their first book "*The Machine That Changed the World"* Womack, Roos and Jones (1990) had managed to catch the attention of the entire management world with over 400,000 copies being sold. (Womack & Jones, 2003) *The Machine That Changed the World* had provided great insight into the different principles that made Toyota so successful, however it left managers around the world asking the question of "How do we do it?" What was needed was something to tie all these seemingly detached principles into a cohesive whole at a higher level of abstraction. (Womack & Jones, 2003) In 1996, Womack and Jones set out to do exactly this in their new book entitled *Lean Thinking* which was later revised in 2003. In this book a higher level of strategic abstraction was taken, and lean production was boiled down to its most basic five principles. The five principles as identified by Womack and Jones (2003) are:

- Precisely specify value
- Identify the value stream
- Make the value flow
- Pull instead of push

- Strive towards perfection

With the great success that many manufacturing firms such as Toyota, Mazda, Pratt & Whitney (Womack & Jones, 2003) and others have achieved using lean principles, managers of non-manufacturing companies around the world have started to wonder if these principles could be used within other non-manufacturing operations as well, and if the results would be the same. (Womack & Jones, 2003) These types of questions have given birth to numerous studies trying to answer this question. What follows is a brief description of some of these studies.

In their study "*Lean service: in defense of a production-line approach"* Bowen & Youngdahl (1998) state that traditional management literature has argued against the transfer of manufacturing principles to services. They make the case that service operations in fact should implement these manufacturing principles, and show that the service sector can indeed benefit from this transfer by using examples such as Taco Bell and McDonald's.

In another study of the lean principles outside of manufacturing, "*A model for lean production in healthcare"*, Karlsson, Rognes and Nordgren (1995) test the applicability of lean production step by step on healthcare. The study finds that the healthcare industry in fact is not all too different when compared to the manufacturing industry and most of the lean principles can be translated and adopted directly. They conclude that on a theoretic level it is entirely possible to use lean principles within the healthcare industry.

Lean principles have also been applied to an insurance company, which is studied by Swank (2003) in "*The Lean Service Machine"*. In order to enhance the productivity of the service offered by the insurance company, the lean principles that have revolutionized manufacturing was used, and proven successful.

Ahlström (2004) has also investigated the applicability of lean principles on service operations in the study "*Lean Service Operations: Translating Lean Production Principles to Service Operations"* and comes to the conclusion that they are very much applicable and even came to a surprising conclusion; some of the original lean principles are even more applicable to services than to manufacturing.

These studies have mainly been focused around different types of service operations and the new field of research is aptly named *Lean services.* However, operations including HR-functions have not yet been studied in terms of lean application, and that constitutes the theory gap that this thesis aims to fill answering the following two questions:

Can lean principles be applied to operations with HR-functions?

What are the obstacles that could impede it?

4. Methodology

In this chapter the chosen method and research approach for this thesis are explained and motivated. This section includes why we chose this specific research question, the research approach used, the methods that we followed, and how data was collected and refined. Finally this section will conclude with a rigorous testing of the reliability and validity of the study.

4.1 Purpose

The purpose of this thesis is to investigate if lean principles, traditionally limited to operational use within the manufacturing industry, can be applied to operations that contain HR-functions. As a result the focus of this study will be to explore if lean principles can be applied within the realm of our case and identify possible factors impeding the application and the benefits associated with a use of the lean principles. Thus as previously stated, our research questions become:

Can lean principles be applied to operations with HR-functions?

What are the obstacles that could impede it?

To answer these questions, we have opted to perform a case study, with the case subject being Scania CV AB (henceforth only referred to as Scania), and more specifically the object of study being the H-department at Scania. The H-department at Scania is a classic example of a collection of non-manufacturing processes. Scania's H-department acts as a human resource support function to other departments within the company. The department's main activities can be divided into three categories; administrative, support and service activities. (See further explanation of the case subject in section 6.1.2. and in Appendix 1.3)

Having chosen the case for the thesis, we set about acquiring greater insight into the H-department. To get a complete and correct view of the departments operations and current status multiple sources of knowledge was needed.

Within production and operations management data is usually gathered through field and case based research. For this type of research to be valid and hence contribute to theory development the research methodology must be carefully designed and implemented. *"Poorly designed and executed research is of little or no value"* (Malhotra & Grover, 1998) Thus when designing and implementing our research methodology we followed rigorous guidelines as the following chapter will detail. The research process model that we used can be seen in Figure 1 below and will be explained in detail in the following sub-sections of this chapter.

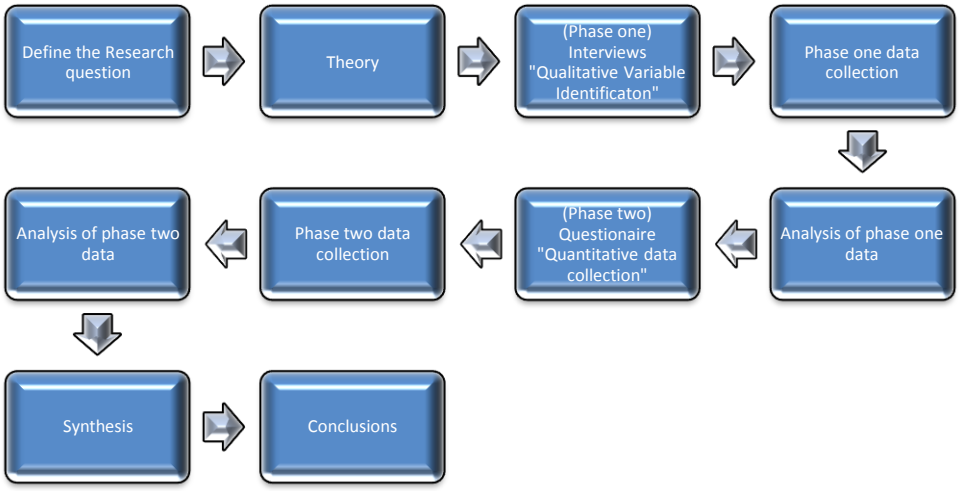

Figure 1. Disposition of the thesis.

4.2 Research method and approach

When talking about the research method and approach two main forms exist. When it comes to research methods there is a difference between quantitative and qualitative and when it comes to research approach there is a difference between inductive and deductive approaches. (Alvesson & Sköldberg, 2008)

4.2.1 Research method

Quantitative method involves the use of statistics, mathematics and arithmetic formulas together with clear cut guide lines to how a study should be performed. The main focus in this type of research is to find and study cause and effect relationships in the phenomena of study. (Holme & Solvang, 1997)

Qualitative method on the other hand, places the observer in the center of the world that he/she wishes to observe. Qualitative research takes a naturalistic view of the world with the overall goal being to understand or interpret a phenomenon in its natural environment. (Alvesson & Sköldberg, 2008)

To enhance the confidence in our empirical findings, we choose to conduct a case study consisting of multiple methods, i.e. both qualitative and quantitative, so called *triangulation*. (Malhotra & Grover, 1998) This research method will be explained further in chapter 4.3.2.

4.2.2 Research approach

When it comes to the choice of research approach is very important to make a choice based on the research question at hand and the knowledge available to the researcher. (Eisenhardt, 1989)

An *inductive* research approach has its starting point in a phenomenon that the researcher wishes to observe, with the overall goal being to create new theory. A *deductive* research approach on the other hand has its starting point in theory, with the overall goal being to test the theory. (Alvesson & Sköldberg, 2008) According to Alvesson and Sköldberg (2008),

inductive research should be carried out when no theory exists at all. However even though research surrounding the application of lean principles outside of manufacturing is rather thin, it cannot be argued that no research exists at all, thus the inductive approach is not fully applicable to this thesis.

Alvesson and Sköldberg (2008) offer a third research approach called *abduction*. This approach is a middle way between induction and deduction where the researchers continuously adjust both the theoretical and empirical findings with the overall goal being to understand the underlying patterns associated with a specific phenomenon in a specific setting.

Considering our research question, the previously mentioned infant nature of the field of lean research and the fact that we aim to test the applicability of lean principles to an operation containing HR-functions, we have opted to take an abductive approach to our research.

4.2.3 Exploratory case study

When conducting research the first step is to identify what type of research you aim to conduct and develop a research model and methodology that fit well with this. Since the application of lean principles on operations containing HR-functions has never been documented before, and since our research question aim to answer a "what"-question a case study was the logical approach. (Yin, 1994) So what is cased based research? A case study is usually conducted when researchers want to study a current phenomenon. In order to find out as much as possible about the phenomenon of study the collection of data is made from multiple sources. (Franz & Robey, 1984) Case research has also been one of the most powerful research methods in operations management (Voss et al., 2002), and are particularly appropriate when the focus is on contemporary events (Yin, 1994).

There are many advantages of using a case study approach, of which Meredith (1998) have listed a few:

- The phenomenon can be studied in its natural setting and meaningful relevant theory generated from the understanding gained through observing actual practice.
- The case method allows the questions of why, what and how, to be answered with a relatively full understanding of the nature and complexity of the complete phenomenon.
- The case method lends itself to early, exploratory investigations where the variables are still unknown and the phenomenon not at all understood.

To answer our research question and to obtain data from the multiple levels that was required we opted for survey based research. Two major types of survey research exist. (Kerlinger, 1986) The first type is *"exploratory"* where the objective is to become more familiar with a topic. There is usually no model in exploratory research and the aim is to better understand and measure the concepts of interest. An exploratory survey is for instance useful in determining the benefits that may be associated with adopting MRP systems and problems that impede its successful implementation. (Malhotra & Grover, 1998) The second type of

survey research is referred to as *"descriptive"*. This type of study has been described as indispensable in the early stages of studying a phenomenon (Dubin, 1978) Descriptive research is aimed at describing the distribution of a phenomenon in a population, thereby ascertaining facts. For example, a descriptive survey might be concerned with documenting the types of manufacturing processes being used by small and large manufacturing firms. (Malhotra & Grover, 1998)

We have for the above listed reasons opted for an exploratory survey research since it provides the best fit with the research that we aimed to conduct.

4.2.4 Theory building

In this thesis we aim to investigate if lean principles can be applied to our case subject, by looking at existing theory and identifying problems that could impede the application.

As a theory can be viewed as a system of constructs and variables (Bacharach, 1989), the task is then to identify these and look for linkages and relationships between these factors, and also discover why these relationships exist. (Handfield & Melnyk, 1998) As our chosen field of research is relatively unexplored, cases such as ours are particularly useful when there is uncertainty in the definition of constructs and variables. (Mukherjee et al., 2000) Case studies such as ours also contribute to theory building through observation of phenomena in the operations management world that have not been empirically tested (Eisenhardt, 1989), and these observations are more powerful at indicating, casual, predictive relationships than many other forms of empirical research (Stuart et al., 2002).

According to Wacker (1998), theory is considered being made up of four components: definitions of terms or variables, a domain in which the theory can be applied, a set of relationships and specific predictions, which is what this thesis aims to contribute with. However, it should also be mentioned that this thesis executes some sort of theory extension, as it expands the map of the lean theories in the light of observes results, it also sets out to discover how applicable the theories or principles are and where they apply. (Handfield & Melnyk, 1998)

Theoretical insights come from demonstrating how the addition of new variables significantly alters our understanding of the phenomenon by reorganizing our causal maps. (Whetten, 1989) Hence we will not only limit ourselves to finding these variables but also look at how these variables need to interact with each other in order to achieve lean operations in our case subject.

4.3 Method

4.3.1 Case selection

According to Voss et al. (2002) the method on how to select cases for a research framework consists of four steps; choosing the ideal number of cases, choosing whether to conduct a retrospective or a longitudinal study, sampling and sample controls.

For this thesis, a single case was chosen mainly due to the fact that this study was done in accordance with a contractual agreement with Scania stipulating that the subject of research would be their H-department. Cases can also be chosen for theoretical reasons, in order to replicate previous cases or extend emergent theory, and also for the reason that they fill theoretical gaps such as ours. (Eisenhardt, 1989) As this study only focuses on one department, a single case study was the most appropriate option as we wanted to gain a deep rather than a broad understanding. (Voss et al., 2002) However, we are aware of the fact that multiple case studies offer a higher degree of generalization as well as ensuring that data from a single case is not exaggerated (Voss et al., 2002), nevertheless the choice of a single case was also due to our own time and resource constraints.

When it comes to the second choice in case selection, the choice between a retrospective or longitudinal study, our decision process was as follows; a retrospective study focuses on studying a historical event or phenomena and collecting data surrounding this. A longitudinal study on the other hand is focused on studying and gathering data surrounding an event or phenomena over time. (Voss et al., 2002) We didn't find that our study fit well with either of these types of studies; our study was rather what is referred to as a *cross-sectional study*. A cross-sectional study is a study where information is collected at one point in time from a sample chosen to represent the population (Malhotra & Grover, 1998). Thus we took on a real-time perspective and instead of focusing on retrospective organizational data we focus on what implications our real-time findings could have in the future. When it comes to our sampling procedures the studied population was Scania, and the chosen sample within Scania was the employees at the H-department. Our sample control consisted of validating the fact that the subjects being studied only belonged to the H-department. (Voss et al., 2002)

4.3.2 A two phase case study

To enhance the confidence in our empirical findings, we chose to conduct a case study consisting of multiple methods, i.e. both qualitative and quantitative methods studying the same phenomenon, so called *triangulation*. The multiple methods include interviews, questionnaires, direct observations and content analysis of documents. We did this in order to cross-check our results from the two different methods with each other, thus adding validity and reliability to our findings. (Voss et al., 2002) Triangulation is specifically suitable for case studies that identify and try to measure variables and constructs, and also when the field of research is relatively immature (Malhotra & Grover, 1998).

We began our study by using qualitative research methodology. Semi-structured interviews were held with all eight managers of the H-department. These interviews were held in the beginning of the study. The aim of these interviews was not only to acquire a comprehensive and in-depth understanding of the organization, but also to identify key problem areas related to a possible lean adoption in Scania's H-department.

For the second phase of our study, we opted to use quantitative research methodology with the aim of testing and validating our findings from the interview rounds. To do this a web-

based questionnaire covering the entire spectrum of lean principles and our previous findings from phase one was sent out to all 241 employees within the H-department at Scania.

Regarding the direct observations, we have spent a fair amount of time within the main building of the H-department, as we were given our own office there. Thus, many observations were made during informal conversations at the coffee machines, during lunch hours and other informal settings within the H-department. Whenever we heard or observed something interesting or noteworthy, we made a note of it in order to collect any extra data that could be needed in our coming analysis of the department. (Eisenhardt, 1989) However, this data will not be presented separately, but will be merged with the other collected data.

4.4 Data collection

When conducting our case based research our research question and the variables we decided to look at evolved over time. According to Voss et al. (2002)"*This can be a strength, as it can allow the development of more knowledge than if there were just a fixed research question".*

Multiple measures for our constructs and variables were all taken. For the first phase of the data collection, we tried to get a good mix of *"objective"* measures like level of standardization and *"subjective"* measures like perceived knowledge of other departments activities. (Yin, 1994) (The entire protocol can be found in Appendix 2.1.) Having read a lot of relevant literature prior to our data collection, we aimed to focus our interview protocols to relevant areas within lean principles.

The questions within our interview protocols were categorized into 10 categories. With each category containing a sub-set of questions aimed at acquiring the relevant data for their respective category.

We opted to hold semi-structured interviews using the interview protocol as a checklist during the interviews. We motivate this with the fact that the H-department at Scania is very sprawling with each sub-division being quite different to one another. This pertains to work practices, lean knowledge, and operational functions. We therefore felt it was essential to capture the differences and nuances of each department in our study. To retain the reliability of the collected data, we used the same protocols in every interview; *"having the same protocol enhances the reliability of the collected data".* (Voss et al., 2002)

A major limitation inherent to our two step method as described above is the difficulties that arise with the management of data collection. (Leonard-Barton, 1990) The difficulties lie in the massive amounts of data that is collected in order to recognize patterns and to see the phenomena from different perspectives. *"A very important shortcoming of this design is the overwhelming volume of data generated – a hazard of all qualitative research"*. (Miles & Huberman, 1994) To be able to handle the sheer amount of data that we gathered from our second phase survey we used an online questionnaire system. This allowed us to organize all the data that had been collected and export it to excel for quick analysis.

Furthermore, when conducting case based research, the research has to be very tightly coordinated to work well. "*Case facts are open to interpretation, it is therefore best to have at*

least two researchers who can challenge each others' observations" (Leonard-Barton, 1990). Following Leonard-Barton's (1990) advice, all of our interviews in phase one were conducted with both of us present. Eisenhardt (1989) refers to making interviews in teams as multiple investigators and she proposes that this enhances the creative potential of the study and also the confidence in the findings. Giving the investigators unique roles increases the chance that investigators will view the evidence in different ways. (Eisenhardt, 1989) Whilst one of us asked the questions and directed the interviews, the other recorded the answers and took notes regarding other observations. Using multiple investigators can also reduce the possibility of personal bias (Voss et al., 2002). This is the case since everyone has subjective biases and will remember different things from an interview (Stuart et al., 2002).

During the interviews, we made sure not to question the answers we were given. The reason for this being, that we didn't want to color the interviewees' answers. Instead we encouraged the respondents to elaborate their answers. This technique is employed to make the respondents feel comfortable, and to encourage honesty (Stuart et al., 2002). We also recorded every interview in order to have a separate reference to our notes (Yin, 1994). This is helpful when reviewing the interviews, which we did after every encounter (Eisenhardt, 1989).

4.5 Data refinement and reduction

When conducting *quantitative* research, refinement and analysis of the data involves summarizing the mass of data collected and presenting the results so that the most important features are communicated. In this type of research, analysis involves looking at such things as frequencies of variables, differences between variables, and other statistical tests. (Hancock, 1998)

However, when conducting *qualitative* research a different approach is taken. The overall goal is to discover the big picture, some data used might be measurable but most of the data collected is used to describe a phenomenon and to understand it better. This is done by observing linkages between different constructs and variables. (Strauss & Corbin, 1990)

The task of identifying the variables and constructs to be studied is itself a form of data refinement. For us the process of variable identification and refinement was a continuous process in parallel to the rest of the research project.

We initially began with a construct and variable list (see Appendix 2.1) that we had identified based on lean principles and theory. This list was the basis for our initial phase one interview questions. All data collected from the eight interviews was subjected to content analysis in order to refine our variables and attain a higher level of abstraction.

"*Content analysis is a procedure for the categorization of verbal or behavioral data, for purposes of classification, summarization and tabulation. Content analysis involves coding and classifying data. The basic idea is to identify from the transcripts the extracts of data that are informative in some way and to sort out the important messages hidden in the mass of each interview".* (Hancock, 1998, p. 17.)

The procedure involved a series of steps repeated over time, where we refined and categorized the variables and data surrounding them that are the subject of study. (Strauss & Corbin, 1990) The exact step by step procedure we followed can be found in Appendix 2.1-2.2

After performing content analysis on our data set we successfully obtained a variable list (see Appendix 2.3) that we used to base our phase two questionnaire on. The questionnaire was then turned into a web-based survey (See Appendix 2.4 for the questions and Appendix 3 for the results). This survey was pre-tested on representatives from the H-department in order to give them a chance to give their opinion on the questions and possibly request some changes. (Eisenhardt, 1989) The survey was also tested by our tutor as well as fellow students. (Voss et al., 2002)

4.6 Research quality

When it comes to academic research the goal is always to provide a correct and reliable picture of the subject being researched. (Andersen, 1998) Within academia the terms validity and reliability are used to discuss this. When it comes to quantitative research, statistical methods are used to measure these variables, however when it comes to other types of research these variables needs to be discussed and reasoned around to draw conclusions. (Andersen, 1998) In this sub-section we will discuss the validity and reliability of our thesis and try to draw some conclusions surrounding them.

Reliability is the extent to which a study's operations can be repeated, with the same results. (Yin, 1994) All measurements are associated with errors, and it is the relative amount of error to the true score that is the equivalent of its reliability. (Spector, 1981)

We have tried to increase the reliability of our study by using multiple instruments when measuring the same set of constructs. This is known as *equivalent forms* and refers to the use of different, but equivalent instruments when measuring data. (Spector, 1981) Our two phase case study is a clear example of this since both quantitative and qualitative data was gathered pertaining to the same variables and construct whilst using different instruments.

In light of this we feel confident that the results from our study have as high reliability as possible, and therefore if the process was presently repeated we believe that it would produce the same results. However it's important to note that our study only took place over a three month period at Scania's H-department, working with lean implementation. Hence if the same study was conducted again in the future when the department and its lean implementation have had time to mature the outcome of the study may be different. Since this thesis does not aim to document the effects of lean principles over time we don't feel that this fact effects the reliability of our study, however it should be noted that it makes our findings hard to replicate in the future if the study was performed again at Scania.

Validity of an instrument refers to its ability to measure what it is designed to measure. In itself it is a simple concept, but determining the validity of a measurement is often much more difficult. (Spector, 1981)

Validity can be split into two categories, internal and external validity. Internal validity refers to the generalization of conclusions within the study itself. (Spector, 1981) It is the extent to which we can establish a causal relationship whereby certain conditions are shown to lead to other conditions. (Yin, 1994) External validity on the other hand deals with the generalizability of findings beyond the current study and sample. (Yin, 1994)

Spector (1981) discuss many sources of invalidity that needs to be avoided. In the following pages we will go through Spector's list and explain, discuss and exemplify how we tried to minimize the effect of each factor.

Instrument reactivity: According to Spector (1981) the very act of measuring something might distort the measure itself. In other words, the instrument used to measure something reacts with the object that it measures. To combat this we tried to structure our questionnaire in a semi-structured way with non-leading questions to minimize the possible effect it could have on our test subjects.

History: It is important to realize that there might be other events that might affect the subject of a study besides the independent variables or conditions that are of interest to the study. Due to the limited scope of this essay we excluded all factors like history, politics, and previous organizational choices from our study. Nevertheless we feel that this does not affect the validity of our study in light of our research question and since this is not a retrospective study.

Unreliability of instruments: If the instruments used to gather data are unreliable, it obviously becomes very difficult to draw correct conclusions. The best way to avoid this is by using multiple measurements with different instruments and using a large sample thus averaging out any measurement errors. Using a two phase case study approach with multiple measurements and choosing a large sample of 241 employees (of which 152 employees answered) for our second round survey reduces the unreliability of our instruments to acceptable levels.

Differential subject loss: In studies that take place over time, subjects like employees or companies may leave the study due to any number of different reasons. The loss of subject would in the end affect the generalizability of the results. Since our study only stretched over a short time period we did not encounter any differential subject loss in the form of employees leaving, that could adversely affect the validity of our study.

Bias: When dealing with study groups, it is important to make sure that the choice of subjects to include in the group is performed at random. When selecting our interview subjects we selected all upper management eliminating any possible selection bias. For the second phase questionnaire the entire population of the central H-department was asked to participate in the survey.

Instrument change: This is also known as temporal invalidity, and refers to instruments used in the study changing validity over time. For example if a subject is studied over time and asked to answer certain questions, their perception of the question and thus the answer they give to it can change. In our case, since our interview skills improved for every interview, we

do feel that the results that we got could have been affected. We tried to combat this with our rigorous interview method (see section 4.4).

Internal validity conclusions: When it comes to explorative research internal validity is always regarded to be relatively low (Yin, 1994), however considering the measures that we have taken as stated above we feel that we have achieved as high internal validity as possible in light of the explorative nature of our study.

Regarding the external validity, this can be compromised if the conditions of the study differ from those in the generalization. Some examples of things that can lead to external invalidity are (Spector, 1981):

Reactivity of instruments: This is the same as instrument reactivity mentioned above, but here we look at the effects of instrument reactivity on external validity and hence the generalizability of findings.

Hawthorne effects: Is the name given to the distortion in behavior that occurs when people know they are subjects of a study. (Spector, 1981) This is hard to combat but we tried to minimize this effect by anonymizing both stages of our study and openly asking our study subjects to be as honest as possible.

Invalidity of instruments: This is an obvious problem since invalid instruments will lead to invalid results. However it can be difficult to assess the validity of an instrument, what needs to be done is to clearly define precisely what is to be measured. By identifying the construct and variables and constantly refining them we feel that we managed to precisely define what we wanted to look at and measure.

Non-representative sample: This deals with the characteristics of a chosen sample, when a chosen sample is very specialized the generalization of the findings onto a greater population becomes very difficult. Our study was limited to only looking at one case, Scania, and more precisely their central H-department in Södertälje, however the fact that Scania is a multinational company spread over many countries makes our findings less bound by geographic constraints.

External validity conclusions: Due to our choice of one company, within one industry, and more specifically one department of this company as our subject of study and the explorative nature of our research it is hard to establish high levels of external validity. As we wrote this thesis we feel that we took every step possible to increase the validity of our findings and we strongly believe that similar conclusions could be drawn if this study was performed on other subjects with similar operations. However we still feel it is important to state that there is no evidence to support that these findings could be generalized to other operations containing HR-functions without further research being conducted.

4.7 Delimitations

Due to the time, resource and contractual limitations we had on this study, we limited ourselves to look at one case. We are well aware of the fact that this choice reduces the

generalizability of our findings, and that having multiple cases would have made the results of this study far more generalizable. Even though we choose not to extend our research beyond Scania's H-department we would like to acknowledge that such research would be very interesting and could provide further insights outside the realm of this thesis.

Due to the same kinds of limitations, we were unable to interview more people linked to the H-department, even though we feel that this could have provided further valuable insights. Customers to the H-department would have been very interesting to include in the study, giving us another perspective on the operations. Another outside view that would have been interesting to include is the top management at Scania. This would have allowed us to see whether there was a fit between how the H-department should be working and how it actually works. However, none of these examples of study extensions were included in our contract with Scania, thus they were excluded since we felt that this would decrease the focus of the study.

4.8 Fulfillment of purpose and the thesis' contribution

In order to be able to evaluate the contribution of this thesis, and to see whether the purpose will be fulfilled, a set of questions will be posed and answered according to a model made by Whetten (1989):

4.8.1 What's new?

This question aims at finding out whether the thesis contributes with something new to the current research and if it is value-adding in some sort of way. Our thesis is adding value in the research regarding the lean principles, since no one has ever studied the applicability of the lean principles within operations that contain HR-functions before.

4.8.2 So what?

So will the thesis change any practice of organizational science within this area? Well, it could if operational decision makers take it to heart. As this thesis provides support that lean principles can indeed be applied to operations with HR-functions together with managerial insights into factors that could impede its implementation and possible solutions to them.

4.8.3 Why so?

This question aims at establishing the underlying logic and supporting evidence of the thesis, and wither the view of this thesis is believable? As the lean principles have been proven to be successful within numerous types of service operations prior to this thesis, we find support for our findings. However, as this thesis studies a type of operation that hasn't been studied before in terms of lean application, this makes the findings and its generalizability less certain. What nevertheless is stated within this thesis is that this type of operation is not to unlike a service operation, which makes lean principles applicable to a similar degree.

4.8.4 Well done?

Has the thesis been subject to qualified thinking and thorough execution? Yes, we would like to argue that it has been. Every step of the process has been carefully evaluated and thought through, as the above methodology chapter shows. This attention to detail has particularly

been taken into account when conducting the questionnaires and interviews, as these have been revised several times before actual usage. We therefore believe that the extra effort put into the data collection has given us the in depth results we were hoping for.

4.8.5 Done well?

This question aims at evaluating if the thesis is well written and if it has a logic flow. The writing of this thesis has from the start had a very clear layout, where the connections between the different chapters have been strongly emphasized, in order to achieve the desired flow when reading the thesis. All precaution has been taken in order for the thesis to be well written, however we leave this evaluation to the readers.

4.8.6 Why now?

Is the thesis' topic of contemporary interest within the research field? We would say that it is. As lean principles are spreading from manufacturing operations to other types of operations, continuously gaining more territory, this thesis provides support for the applicability of lean principles on yet another type of operation. We would like to propose that this thesis helps the spread of lean principles, in order to eventually be universally applicable.

4.8.7 Who cares?

Hopefully academic researchers within the operations management field will be interested to take part of this thesis' findings, as it has a strong operations focus. However, researchers within the human resources field might also find it interesting to find that the lean principles are applicable to their types of operations. Outside of academia, we feel that the findings could be of interest to managers wishing to apply lean principles on their operations as this thesis provides some managerial insights into possible factors that could impede implementation together with suggestions as to how to solve them.

5. Research design

This chapter aims at explaining the lines of thought that were used when forming the outlines for this research. Firstly, an explanation of the research used will be displayed, and secondly, the theoretical framework used in order to answer the research questions will be presented.

5.1 Research model

5.1.1 Constructs and variables

Any scientific investigation, be it in the social or natural sciences, must begin with some structure or plan. This structure defines the number and types of entities or variables to be studied and their relationship to one another. (Spector, 1981)

When choosing the variables that we wished to study we began by looking at the five lean principles and the seven lean production principles. From these we developed a comprehensive list of questions to be asked in our phase one of data collection. With the list completed we used content analysis to categorize all the questions and answers into ten different categories (as explained in section 4.5), see Appendix 2.1 for the entire questionnaire and the categories that were identified.

The further refinement of this list was a gradual process over time, where we added and subtracted categories based on our findings in the first phase of our data collection, until we felt the list was mutually exhaustive and covering the entire breadth of lean principles. The final list of categories is what we call our constructs (Bacharach, 1989). (See Appendix 2.2) A construct is defined as *"terms which, though not observational either directly or indirectly, may be applied or even defined of the basis of the observables"* (Kaplan, 1964, p.55), i.e. something so abstract that it is impossible to observe or measure. In our study, an example of a construct is *communication.* These constructs are then broken down into observable units called variables, which can be operationalized by empirical measurements. (Bacharach, 1989) To be able to measure our constructs, we thus need to break them down into variables. For our construct *communication* for example, the variables could be observing the communication channels, if there are clear directives, the information access, and so on, which eventually could provide a status for the construct communication. These variables are then to be used in the second phase of our research to measure the applicability and identify obstacles impeding the adoption of lean principles on an operation containing HR-functions. (See Appendix 2.3-4)

5.1.2 The model

As stated above, what we aim to measure in this thesis is the applicability of lean principles on operations with HR-functions. To do this we select twelve constructs and numerous variables that aim to measure the principles of lean, as the model in *Figure 2* shows. For the lean principle *perfection* for example, the construct *improvements* have been chosen. All the twelve constructs and the related variables will then lead to answering the question if the lean principles can be applied to an operation that contain HR-functions, i.e. measuring the level of lean applicability within the case subjects operations. (See the upper circle to the right in the research model *Figure 2.*) However, we want to stress that lean applicability is a testament to

how lean *could* apply to such an operation, hence this study will not measure the effects of a lean adoption. Furthermore, this model only constitutes a model of our thoughts and research. That is why the upper circle to the right is measured on a *pre-adoption output level*. Having stated the level of lean applicability, and simultaneously investigated the support for such applicability within similar operations in previous research, we will be able to answer our first research question: *Can lean principles be applied to operations with HR-functions?*

Our second research question is: *What are the obstacles that could impede the application of lean principles?* This part of our study will focus on the "Adoption" part of the model. That is, we aim to look at if the principles of lean can be adopted by the case subject by gathering data about our constructs and variables and analyzing them. We will then try to identify possible obstacles that exist within the organization and that could impede the "Adoption" process. Once the obstacles are identified, we will try to provide advice as to how these can be overcome. This will thus act as the managerial advice to the case subject. We will also propose what the possible outcome of a lean adoption on this department could be, thus describing the vertical arrows in the model below, the lower boxes of successful adoptions and explaining how it can lead to a lean operation (the lower circle to the right). However in the end it is up to the case subject to do the actual implementation and to observe what the *post-adoption output level* will be.

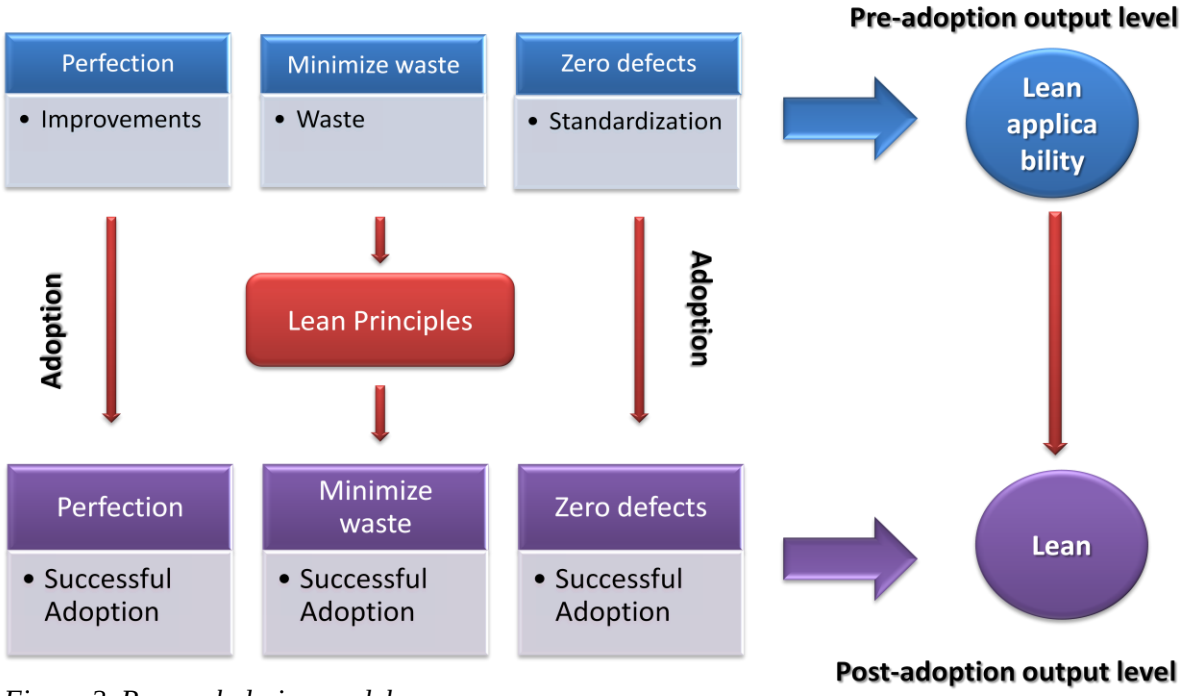

Figure 2. Research design model.

5.2 Theoretical framework

What follows in this chapter is a brief theoretical description of the lean principles, together with a list of the constructs and variables that we use to measure and observe each principle, thus what data the constructs and variables aim to gather.

5.2.1 Principles of lean thinking

The lean principles that are listed here are the underlying factors that need to be satisfied to achieve a lean thinking, they are an overarching way of thinking in order to achieve a lean enterprise. (Womack & Jones, 2003) Principles are displayed in the same order as they are displayed in the book *Lean thinking*, as the first factor constitutes the foundation of the next factor and so forth. Hence, the sequence of the factors is of utmost importance. (Womack & Jones, 2003)

Specify value

In order to define what value in a firm is, the customer's opinion must be taken in-to consideration. Is there a match between what the customer considers as value and what the company defines as value? This value definition should be done in accordance with each specific customer. By doing this a clear picture of what is actually needed can be attained. Being cautious of how people actually define value is a very good thing, as people usually define value in the way that suits them and their own needs best. As the value streams flow through a lot of different actors it is vital not to define value differently throughout the value chain.

Construct and variables: *Common knowledge base* – Finding out if all the people within the organization know how the concept value is defined. *Common mindset* – measuring what is perceived as value within the organization and if the organization has the same view of what creating value means

Identify the value stream

The term value stream implies the actions that bring a specific product through three critical management tasks: problem solving, information management and physical transformation, i.e. the entire process from raw material to the end customer. Somewhere along the value stream, *waste* is usually created, and it is important to eliminate that waste. To be able to identify the entire value stream, it is important to first include all departments within the company and secondly also the boundaries of one's own company and therefore also include suppliers and retailers. (Womack & Jones, 2003)

Construct and variables: *Common knowledge base* – Finding out if the managers and the employees know how to define the concepts of process, waste and value streams. *Waste* – investigating how the departments work to eliminate waste. *Flow* – in terms of investigating whether the organization has a process view, and what processes are value creating and which are not.

Flow

After having identified the value stream, the next step is to make sure that the products go through the necessary value creating steps with a good flow, this might entail a rearrangement of activities but also of already established patterns of thoughts inherent in the production process as well as in the people. It is essential to think about the needs of the product instead of the needs for the organization or the equipment, so that the activities of design, order and production of a product occur in a continuous flow. There is a risk that the managers are overseeing too many products at once, when they actually only should be looking at one value stream of specific goods or services at a time. Flow principles can be applied to any type of activity, and the result is always dramatic. (Womack & Jones, 2003)

Constructs and variables: *Common knowledge base* – studying whether the concept of flow is established within the organization. *Flow* – investigating primarily if an identification of processes mapping is possible, and after that seeing if the activities have a good flow throughout the processes. *Common mindset* – in order to see whether there is a common view within the organization of what the main process or processes are.

Pull instead of push

Pull means that sales forecasts are disregarded and lets the customer tell the company that there is a demand, i.e. letting the customer *pull* the product out of the company, instead of having the company *push* it onto the customer. The outcome of this method is having shorter production times and less inventory. (Womack & Jones, 2003)

Constructs and variables: *Common knowledge base* – finding out whether the concept of pull or *customer-driven output* (See description of *Scania Production System* in section 6.1.3 and in Appendix 1.4) are established and understood. *Common mindset* – investigating how well these concepts are understood and used within the organization. *Waste* – discovering how much of the daily work that is devoted to serve the customers, i.e. adding value, and how much of the daily work that is not adding value.

Perfection

Striving for perfection might at first seem like an impossible task. But after having gone through the steps above, it should not seem so impossible anymore. It is important to always have transparency in all contacts with suppliers as well as customers. A good way to reach perfection is also to give immediate feedback to the employees in order for them to constantly make improvements. Along the path towards perfection, it is important to revisit the question of what value is and to see if the answer is continuously the desired one. This is what one might call *kaizen*, the Japanese word for continuous improvements. (Womack & Jones, 2003)

Constructs and variables: *Common knowledge base* – does everyone in the organization know what the definition of improvements is? *Common mindset* – is everyone striving to reach perfection in terms of always trying to improve the operations? And finding out whether there is an established way of dealing with improvements. *Management commitment* – investigating whether the management is encouraging the employees to work with

improvements. *Employee satisfaction* – studying whether the employees feel motivated and encouraged to work with improvements in their daily work.

"*To hell with your competitors; compete against perfection by identifying all activities that are waste and eliminate them. To master the techniques of eliminating waste – begin with flow!"* (Womack & Jones, 2003, p. 98)

5.2.2 Principles of lean production

While the principles of lean thinking are more on a strategic level, the principles of lean production on the other hand take an operational focus. However, the lean way of thinking needs to be in place first, in order to comprehend the scope of what the lean production principles can entail. (Womack & Jones, 2003) Therefore, some of the principles within this section are very similar to some of the lean thinking principles, and hence there is some overlaps in the following text regarding the constructs and variables used to measure the specific principles.

Elimination of waste

Due to the tough financial restraints that Toyota faced during the 1950's it was a necessary for them to minimize their costs in any way possible. Engineers at Toyota set to work identifying *muda*, the Japanese word for waste. Anything that did not add value to the product for the end customer was classified as waste and was deemed as something that had to be removed. (Womack et al., 2007) Or as Monden (1983) puts it *"Waste is anything that does not add value to the product, in general terms; it is anything that the customer would not be willing to pay for"*.

Constructs and variables: *Waste* - identifying and testing for possible sources of waste. *Common mindset* - checking if employees actively work to identify and eliminate sources of waste.

Zero defects

The basic argument of the Toyota principles is that it will lead to high productivity. To achieve this it is of critical importance that products are created fault free from the beginning, eliminating the need to fix defects that occur in most production process. This is a proactive approach focusing on identifying the source of errors and eliminating them before they occur with the help of the employees. *"Quality is a responsibility of everyone instead of a specialized part of the workforce".* (Wheelwright & Bowen, 1996)

Constructs and variables: *Standardization* - does the organization work according to standardized procedures and processes. *Quality* - what does the organization do to ensure the quality of work performed. *Employee satisfaction* - are they employees motivated to bring forth errors that they encounter.

Pull instead of push

To clarify this principle we will first begin by explaining the classical push method of production. Push is a resource-focused production method, it aims to maximize capacity

utilization of expensive manufacturing machinery and uses inventory as the source of slack thus keeping the machinery operating at the highest possible capacity. Pull is in direct contrast to this as it takes a process focus on manufacturing and material flow, and aims to minimize the throughput time of the products in production. Instead of inventory the capacity utilization of the manufacturing machinery is used as the source of slack. (Womack et al., 2007)

Constructs and variables: *Common knowledge base* – finding out whether the concept of pull or *customer-driven output* (see description of *Scania Production System* in section 6.1.3 and in Appendix 1.4) are established and understood. *Common mindset* – investigating how well these concepts are understood and used within the organization. *Flow* - Numerous variables were used to measure operational flow and will be detailed later.

Multifunctional teams

This idea stems from Taiichi's experiment at Toyota city. He grouped the workforce into teams each one having a team leader rather than a foreman. Each team were given an equal part of the assembly step that they worked on, further more such tasks as housekeeping, tool repair, and quality-checking was given to these teams. (Womack et al., 2007) However the biggest differentiating factor from mass production comes from the fact that each team has the knowledge and skill to perform most of the tasks performed by other teams within the production process. This provides high labor mobility and allows the teams to rotate between different tasks providing greater job satisfaction, and decreases the production process dependence on an individual. (Womack et al., 2007)

Constructs and variables: *Cooperation* - do the employees work together in teams and how do the different sub-departments work together? *Communication* - do the employees have all the information to work on different tasks? *Employee satisfaction* - do the employees have all the skills required?

Decentralization

By decentralizing the organization, authority and responsibility is pushed down the organization to the employees closest to the decision and in the majority of cases the employees with the best knowledge to make an effective decision. This has the further benefit of minimizing delays when quick decisions have to be taken. However the risk with decentralization is that decisions can be made without having the knowledge of the big picture. (Womack et al., 2007) The next principle addresses this issue.

Constructs and variables: *Employee satisfaction* - are the employees empowered to make their own decisions? *Communication* - do the employees have all the necessary information they need to perform their work and is it easily accessible?

Vertical information systems

To avoid the pitfalls of decentralization it is a pre-requisite that the correct information flows vertically and directly to the relevant decision makers. The system needs to keep the multifunctional teams continuously updated with performance and operational objectives as

well as any other information that might be needed for correct problem identification and solving. (Wheelwright, 1985)

Constructs and variables: *Communication* - does the information flow freely down the hierarchy and to the right people? *Key measurements* – is all the necessary information gathered, measured and available to those that need it?

Continuous improvements

The Japanese term for continuous improvement is Kaizen and has been deemed the second most important principle after waste; "*Kaizen, is the constant and never ending striving for perfection through small incremental improvements".* (Imai, 1986) This notion strives to use the knowledge that has been built up within every employee to continuously help to improve every process within the company. Things such as improvement groups are used to push forth improvement ideas. (Womack et al., 2007) However, according to Ahlström (2004), *"such improvement meetings do not guarantee that the creation of an environment and culture of continuous improvement is established".*

Constructs and variables: *Improvements* - does the organization actively work with improvement work? *Management commitment* - Is the management committed to this type of work and are they motivating the employees to work with it? *Communication* - Is the improvement work that has been performed well documented and available for all to take part in?

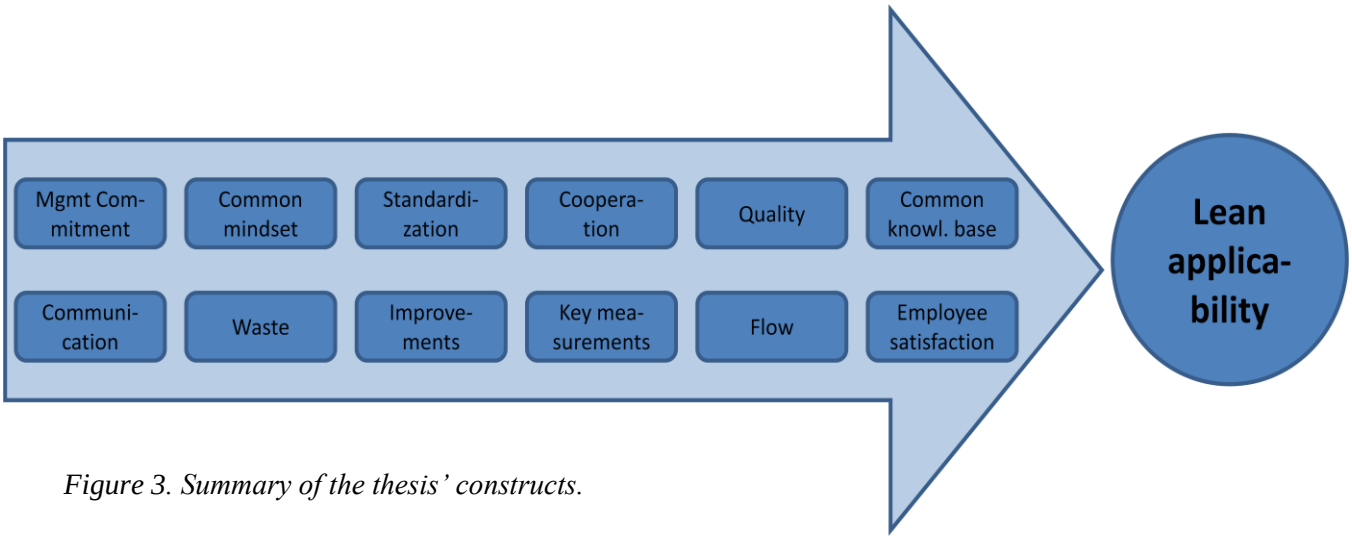

Figure 3. Summary of the thesis' constructs.

6. Empirical findings

In this chapter, a review of the results from the data collection will be demonstrated. The chapter will start with a brief description of the case subject, Scania CV AB. Thereafter; a summary of the findings from the data collection organized into interview and survey data will be presented.

6.1 Case subject description

6.1.1 Scania CV AB

Scania CV AB (henceforth only referred to as Scania) has a history within the transport sector that goes all the way back to 1891, when the company initially only produced railroad carriages and bicycles. However, when faced with growing competition from the European continent, the company started to focus their production on trucks, cars and busses. In the 1920's, the company gained financial support from the Wallenberg family owned Stockholms Enskilda Bank. In 2007 Volkswagen, which for a long time had been one of the larger shareholders, were permitted to buy additional shares and consequently became the largest shareholder of Scania.

Today Scania is one of the global industry leaders when it comes to heavy transports, busses, industry and marine motors. Scania operates in over a hundred countries and has about 35,000 employees. Scania has production facilities in Sweden, France, Brazil, the Netherlands, Russia, and Poland and their central purchasing function is located in Södertälje, Sweden which is complemented by local purchasing functions in Poland, the Czech Republic, the USA and China, making Scania a truly global company. Scania is one of the most profitable companies within its industry and have shown positive growth figures for the last 70 years. 2007 was no different and was a year of strong growth for Scania with overall sales increasing by 26%.[1]

6.1.2 The H-department

The specific subject of this thesis is the H-department at Scania in Södertälje. The department consists of over 250 employees, divided into seven different sub-departments along with an overhead function. The sub-departments are each responsible for different areas containing activities such as acting as a support to, among others, local human resources function within Scania. They are therefore responsible for the handling of all issues regarding all employees' salaries, running the healthcare center and the internal post office, managing the Scania Industrial High School, rehab-related issue as well as the intranet HR Inline. (A further explanation of the H-department is found in Appendix 1.3.)

6.1.3 Scania Production System (SPS)

Scania Production System (SPS) has its roots in the Toyota Production System (TPS) and lean production principles. The principles behind SPS are essentially the same and the differences mainly lie in the vocabulary used. (A more detailed description of SPS is found in Appendix

[1] Information as presented in the Scania Annual Report, 2007 and the information folder *"A world of opportunities"* (2007).

1.4.) SPS is the established working method within Scania's production departments, and it is continuously gaining territory within the non-production departments as well. However, the H-department has only just started adopting the SPS principles, and some sub-departments within the H-department have come further than others.

Since SPS is a known concept to most employees at Scania, some of the vocabulary and terms found in lean principles were substituted with SPS terms and vocabulary during the interviews and in the survey. Therefore the term *lean* has been substituted with SPS in the following chapter.

6.2 Empirical findings

In the following part of this chapter all the data collected from the interviews and the survey will be presented in an organized manner under the relevant construct. The data from the survey will be presented with reference to the statement that was used to attain it, together with the average answer received from the respondents. The answers are provided on a scale from 1 to 6 with one implying complete agreement with the statement and six complete disagreements with the statement. A lower score is consequently for the most part a more positive answer, in the few statements where this is not the case this will be clearly stated. In the statements where cross sub-department discrepancies were found, the results will be provided with the most positive average answer listed first, followed by the most negative average answer. The entire survey can be found in Appendix 3.

6.2.1 Management commitment

Interviews

The impression from the interviews with the managers regarding the management commitment construct was that there are greatly varying degrees of commitment between the managers when it comes to implementing SPS. Some of the managers have already started to implement SPS within their departments and got much further than others. The managers that had got the furthest with implementation had a much more positive attitude towards SPS than the managers that had not come far in their SPS implementation.

Survey

Regarding the management commitment construct within the survey, there were two statements to take position to and also two open questions. The answers from the first statement showed that for the most part employees perceive their managers as being available to them when needed *(Q2.3 average answer of 2,40).* The answers from the second statement yielded some discrepancies, with employees in some departments feeling highly motivated by their manager to work with SPS (*Q8.4 most positive average answer 2,0)*, while employees in other departments did not feel motivated *(Q8.4 most negative average answer 4,67).* This result is in line with that result observed in the interviews and strengthened by the answers obtained from an open question asking the respondents to name the biggest obstacle for SPS adoption. Some quotes from the respondents read: *"poor SPS knowledge on the managers' level", "the guidance has to come from the management", "I don't think that the management has the competence needed to run the work with SPS", "the managers don't*

believe in SPS", "obstacles are the managers and the employees, it is difficult to teach old dogs new tricks", "keys to success is good leadership", "the managers need to believe in SPS", "the managers need to be committed", "the managers need to be motivated".

6.2.2 Common mindset

Interviews

As shown within the management commitment construct, there are differences when it comes to how SPS is perceived among the managers. The managers also had different opinions whether an overall normal situation could be reached within the H-department. However, common mindset refers to other areas than just SPS, here too discrepancies were found. There was for example, a lacking common view of what the general objective of the H-department is among the managers.

Survey

The survey results indicate that the employees in general have a positive attitude towards implementing SPS *(Q8.1 average answer 1,94).* The employees also thought that SPS could be implemented outside of manufacturing *(Q8.3 average answer 1,69)* and that the obstacles impeding the implementation were not too big *(Q9.5 average answer 4.48).* When it came to the statement regarding the feasibility of creating an overall normal situation for the H-department the results indicated a positive inclination *(Q9.4 average answer 2,31).* When the respondents were asked to answer an open question regarding what they thought were important things to consider when implementing SPS. Overall themes like needing a deeper SPS understanding, motivation from superiors, increased SPS education, and needing third parties to help came up. Furthermore quite few of the respondents seem to think that SPS only could work within manufacturing and that the biggest obstacle for implementation is a lack of management commitment and motivation.

6.2.3 Standardization

Interviews

From the interviews it was found that there was a lack of standardization within the H-department. This impression was founded upon different observations such as poor use of manuals, templates, and standards, as well as sub-departments working with large and diverse sets of tasks, and confused ownership of processes. The managers testified to daily work being unstructured and that most meetings were also unstructured and not very well planned. According to the managers, an overall *normal situation* is far from being completed and some even went as far as saying that it was impossible to attain. (See Appendix 1.4 for further explanation of the concept normal situation.)

Survey

When the employees were asked if there was a defined normal state in their respective departments, the result from the respondents was inconclusive *(Q2.5 average answer 3,18).* The statement regarding standardized work practices *(Q4.2 average answer 3,35)* and the statement regarding the use of steering documents *(Q4.5 average answer 2,7)* yielded similar

inconclusive results. Worth noting is that only 10 out of 152 respondents chose to answer an open question regarding the departments' use of standards and guidelines.

6.2.4 Cooperation

Interviews

The overall impression gained from the interviews with the managers was that there is lacking cooperation across the different sub-departments. Few of the managers had a good picture of the current activities of the other department. Some of the departments, however had reasons to cooperate more with each other, thus there was cooperation between departments that was better than others.

Survey

When the respondents were asked if they could easily take over a colleague's task, the results were positive *(Q5.1 average answer 2,66)*. The results from the statement aimed at measuring the proximity of work colleagues showed that the respondents sat close to their colleagues *(Q5.2 average answer 1,92)*. However discrepancies were found between departments when it came to both these results. Most respondents also indicated that they worked alone instead of in teams *(Q5.4 average answer 2,27)*. When the respondents were asked if the cooperation between departments worked well the results showed positive inclinations *(Q9.2 average answer 2,23)*.

6.2.5 Quality

Interviews

The answers from the interviews showed that there is no established system to control the quality of the departments' output and the overall quality-thinking seems to be lacking. In order to have some guidance, some of the managers mentioned that the Scania fundamental standards are used to guarantee quality within the departments, but otherwise the error-checking within the departments seemed to be poor.

Survey

When the respondents were asked if they had any established routines or systems in place in their respective departments to guarantee quality the result was inconclusive *(Q4.8 average answer 2,85)*. Most the quality checking seems to be done at an individual level. The results from the statement concerning checking the work for errors confirmed this. *(Q7.4 average answer 2,05)*.

6.2.6 Common knowledge base

Interviews

A common knowledge base is difficult to establish after having screened the answers from the interviews. To start with, the knowledge of SPS seems to be on very different levels along with the managers having different opinions of what SPS stands for; some of the managers thought the SPS stands for continuous improvement while other thought that it just was a combination of letters, and that it can be summed up as working according to common sense.

From the interviews it was also found that there are no mandatory courses in SPS within the H-departments, even though such courses are available to all Scania employees to take. Besides the lack of SPS knowledge, some of the managers also seemed to lack insight into the importance of process knowledge.

Survey

To measure the level of common knowledge base within the H-department a series of open questions were used. The first one, which aimed at measuring the common level of SPS knowledge and understanding, asked the respondents to explain what SPS meant to them. The results showed great discrepancies. One respondent said that SPS *"is our way of working at Scania"* another said *"it's just common sense"* while some respondents seemed to have a much deeper understanding naming most of the principles of SPS. An open question asking the respondents to name the SPS education they had received also pointed to most the respondents having only received basic SPS training limited to an SPS game course. The SPS game session can be summarized as a production game aimed at letting the participants organize a production line. When asked how long the respondents thought it would take to implement SPS discrepancies were observed with some respondents answering that it would take one to two months while others said it would take ten years or more.

6.2.7 Communication

Interviews

The communication within the top management group seems to be working well, as they meet once a week to get updates. However, the continuous communication within the separate departments seems to be carried out somewhat differently. There also seem to be, as mentioned earlier, unclear directives towards what and how the H-department should be working. Some of the managers also mentioned that there are too many unstructured meetings within the departments, and most of the managers seem to think that the best way of communicating is face-to-face. By face-to-face the managers implied ad hoc conversations in contrast to pre-planned meetings.

Survey

The result from the statement aimed at measuring the degree of clear objectives being in place in the departments pointed to discrepancies between departments *(Q2.6 most positive average answer 2,48 most negative average answer 3,88)*. An open question asking the respondents if they felt that the objectives in their departments were clear and how it affected them pointed to similar discrepancies with 17 of 152 respondents within only three of the seven departments choosing to answer the question. The statement regarding the existence of clear objectives within the H-department also yielded discrepancies *(Q9.3 most positive average answer 2,11 most negative average answer 5,5)*. When asked how many percent of their work week is spent in meetings the results yielded two extremes with around half the respondents saying they spent 10% or less of their work week in meetings and the other half saying they spent 30% or more of their work week in meetings. The primary channel of communication seems to be face-to-face and meetings with 71% of the respondents choosing these when

asked to select their primary way of communicating within their departments. When asked an open question regarding the best way to communicate almost all respondents answered face-to-face. When the respondents were asked if they felt that they could find all the information they need on their intranet the results were inconclusive *(Q7.5 average answer 2,96)*. When asked if the information on their intranet was easy to find the results yielded slight positive inclination *(Q7.6 average answer 2,51).* The question regarding the average use of the intranet indicated an even spread from using it twice or less to over 10 times per week.

6.2.8 Waste

Interviews

In the interviews the managers mentioned a few things that they define as waste within the H-department. Firstly, most of them think that there is too much administrative work. Secondly, an issue of low efficiency within the departments was brought up by several of the managers, one manager went as far as saying that 30% of the workforce was redundant and unnecessary. Most of the managers identified the employees as being the biggest cost in their departments, however few mentioned that they were working actively to reduce costs.

Survey

When asked if their meetings were well-structured the results from the respondents indicated discrepancies between departments *(Q4.7 most positive average answer 2,45, most negative average answer 3,77)*. When asked if they have to wait for information to complete their work the results indicated slight inclination towards not having to wait *(Q5.3 average answer 3,54).* A similar statement asking if the respondent had to wait for other departments to perform their job, yielded similar slight inclinations *(Q9.1 average answer 3,41)*. When the respondents were asked if they felt that they were understaffed in their department the results indicated that they weren't *(Q6.1 average answer 4,1).* When asked if they felt they were overstaffed the results from the respondents showed that they were not *(Q6.6 average answer 5,22).* Results from the statement aimed at measuring if the departments worked actively with cost reductions showed slight positive inclinations *(Q7.1 average answer 2,41).* When asked if a lot of their work was administrative paperwork the respondents showed slight inclinations towards this *(Q7.2 average answer 2,6).* The result from the statement aimed at measuring the amount of rework performed showed that there was not very much rework *(Q7.3 average answer 4,22).*

6.2.9 Improvements

Interviews

The work with dealing with improvements seems to be very different from department to department. According to the managers, some departments are detecting errors within their operations, dealing with them, and then forgetting them, while other see it as very important to learn from the improvements. Some of the managers put the improvement issue very high up on their agenda, while others didn't have an established way to deal with improvements at all. Some of the managers also mentioned that they and their employees are working together in improvements groups, while others did not have any improvement groups.

Survey

When the respondents were asked if it was easy to change things within their departments the results yielded discrepancies between departments (*Q4.4 most positive average answer 2,43 most negative average answer 4,00)*. Similar discrepancies where found when the respondents were asked if they worked in improvement groups within their department *(Q8.1 most positive average answer 2,00 most negative average answer 5,11)*. When asked if they took part in the information found on the improvement boards, 30% said they didn't, and around 20% of the respondents were unsure if such a board existed. The results from the respondents that did take part in the information on the improvement board yielded discrepancies between departments *(Q8.2 most positive average answer 2,40 most negative average answer 4,33).* When asked if there were established routines on how improvement ideas should be voiced, results again pointed to discrepancies between the departments *(Q8.6 most positive average answer 2,32 most negative average answer 3,80).*

6.2.10 Key measurements

Interviews

An overall impression from the interviews was that there are too little key measurements within the departments, which is motivated by the managers with the claim that it is not possible to measure the activities within the H-department as they differ so vastly. Not following up on work was also motivated with the same claim of high variability in work tasks. The managers did feel that there was too little customer follow-up, however they did not have any ideas on how these could be carried out due to the nature of the services that they provide.

Survey

When asked if follow-ups were performed continuously within their departments the results from the respondents were inconclusive *(Q4.2 average answer 3,11).* When asked if key measurements were used within the respondents' respective department the results indicated discrepancies across the departments *(Q4.4 most positive average answer 2,57 most negative average answer 5,33).*

6.2.11 Flow

Interviews

Flow was a big issue for most of the managers. It seemed as though many of the managers had given up the thought of having a steady flow as they didn't see how this could be applied to their departments, due to such thing as highly reactive business cycles, dependencies on other departments, high variability of activities and strict deadlines. The managers claimed that they could not predict their future flow of activities and according to some of them the customers constituted another issue for creating flow as the departments have many different customers. Furthermore it was made clear that the managers were not always sure of whom their customers were.

Survey

Seven statements were used to measure factors that affect flow. When asked if their work had clear starting and ending points the results showed positive inclination to the statement *(Q3.1 average answer 2,76)*. When asked if the required work effort varied between tasks the results from the respondents indicated that this was the case *(Q3.2 average answer 2,16)*. When asked if tasks followed a clear sequence the results were inconclusive *(Q3.3 average answer 3,11)*. Most the respondents indicated that they took part in the information that they needed to complete their tasks at the beginning of their task *(Q3.4 average answer 2,18)*. When the respondents were asked if they could predict the flow of their future activities the results were inconclusive *(Q3.5 average answer 3,14)*. When asked if their work assignments varied the results indicated that they do *(Q3.6 average answer 2,02)* the opposite statement of having repetitive task yielded similar results of this not being the case *(Q3.7 average answer 3,66)*.

6.2.12 Employee satisfaction

Interviews

During the interviews with the managers, they were asked what they do to motivate and develop their employees. Most of the managers said they motivated their employees by letting them enroll in free education programs. Other things that were done by the managers were to empower their employees to make their own decisions in their daily work, and to quickly resolve any conflicts within their departments.

Survey

When the respondents were asked if they felt that they could make their own decisions without asking their superiors the results showed positive inclinations *(Q2.1 average answer 2,28)*. The respondents also felt that they had a lot of responsibility within their department *(Q2.2 average answer 2,02)*. The respondents also indicated that they felt motivated with their work *(Q6.2 average answer 2,01)*. When asked if they felt motivated to bring forth any errors that they encounter in their work the results showed discrepancies between departments, with respondents in some departments feeling motivated while results from respondents in other departments were inconclusive *(Q6.3 most positive average answer 2,00 most negative average answer 3,20)*. When asked if the respondents felt motivated to bring forth improvement ideas results yielded similar discrepancies between departments *(Q6.4 most positive average answer 1,81 most negative average answer 3,6)*. When asked if they would like to have more free education results were inconclusive *(Q6.5 average answer 3,16)*. On average respondents enrolled in two to ten free education days per year.

7. Analysis

In this chapter, an analysis of the empirical findings in light of the research question will be performed. Factors that impede the implementation of lean principles will be identified and the degree to which they impede implementation will be assessed.

7.1 Principles of lean thinking

7.1.1 Specify value

Any profit driven organization is per definition aimed at creating some kind of value be it for the stakeholders, customers, or employees. According to Womack and Jones (2003), the first step in creating an even flow is to identify what the customer considers as value and match this with what the company defines as value. When it comes to what the H-department considers as value the answers from the management was quite unified and summed up as *"offering support to other departments at Scania"*, however when it came to answering what their customers consider as value there was no unified answer. A big reason for this was that there seemed to be no unified idea of exactly who their customer was. An overall explanation for this probably lies in the sprawling nature of the organization and that each sub-departments within H works towards different customers. This adds a lot of problems to customer value identification. However no evidence was found in this research that would make the H-department exempt from being able to specify what the definition of value entails for their customers.

7.1.2 Identify value stream

Within any operation that aims to create any kind of value there is always a value stream that can be identified. When studying the H-department at Scania, the overall theme found in the interviews was that most of top management lacked enough process knowledge for successful flow implementation, some managers even lacked basic process knowledge. In accordance with Womack and Jones (2003), for successful flow implementation managers need to have a clear and correct picture of the value stream that their products and services follow. These value streams need to be identified and mapped, however this is impossible without management having a clear picture of all the relevant processes and their casual relationships. Thus the biggest factor impeding the identification of the H-departments value stream and therefore impeding flow implementation is lack of process knowledge and understanding of the value definition both on a managerial and employee level.

7.1.3 Flow

When it came to the management's explanation of the lack of flow in their respective departments numerous explanations such as highly reactive business cycles, dependencies on other departments, and strict deadlines were given. The greatest overall problem impeding the implementation of a steady flow was attributed to not being able to predict the stream of activities and the high variability of the tasks. Some managers even went as far as claiming that these two characteristics of their work made implementation of a steady flow impossible. To test this argument quantitative data has been gathered surrounding twelve variables as identified by Reinertsen (2005) and compared to his findings when it comes to steady flow

creation in product development. The findings from the quantitative data gathering can be seen in Table 1 below.

Variable	Manufacturing	Prod. development	H-department Scania
Scope of work	Bounded, constrained	Unbounded, expandable	Bounded, constrained
Requirements	Fixed	Adjustable	Fixed
Starting point	Fixed	Adjustable	Fixed
Ending point	Fixed	Adjustable	Fixed
Task Sequence	Sequential	Non-sequential	Sequential
Information arrival	Concentrated at start	Continuous	Concentrated at start
Decision making	Concentrated at start	Continuous	Concentrated at start
Queues	Visible	Invisible	*Invisible*
Risk taking	Unnecessary	Necessary	Unnecessary
Variability	Destroys value	Adds and Destroys value	*Adds and Destroys value*
Work content	Repetitive	Repetitive and non-repetitive	*Repetitive and non-repetitive*

Table 1. Variables to achieve flow with regards to manufacturing and product developments operations, compared to Scania's H-department.

Surprisingly, these findings indicate that most factors affecting flow is not that different in Scania's H-department when compared to a manufacturing process. The three factors found to be different were queues, variability, and work content which match the variables in lean product development. This allows two interesting conclusions; first creating a steady flow in Scania's H-department should not be very different from creating a steady flow in manufacturing. The second conclusion that can be drawn is that to achieve a steady flow the focus needs to lie in the three variables that differ. Since these three variables fit with product development, to achieve steady flow it is recommended that tight demand scheduling together with a queue management systems able to handle variability are used. (This will be elaborated further in the managerial implication section, 8.2)

7.1.4 Pull instead of push

See Pull instead of push under Lean production principles, section 7.2.3.

7.1.5 Perfection

The continuous pursuit of perfection is a common mindset that needs to and can indeed be established within any type of organization, it is a universal way of thinking applicable to all. (Womack and Jones, 2003) Two underlying factors directly affecting this is employee training and standardization. Employee training affects the pursuit of perfection by increasing job satisfaction and the quality of the workforce. However it serves another important function when it comes to lean adoption, since it directly facilitates standardization and improvement work. Part of standardizing work practices and continuous improvement work is to have a common knowledge base so that all involved parties understand the work being undertaken and can communicate effectively with each other using the same language. This is

incidentally also part of creating *standard operations* (Womack et al., 2007) and *normal situation*.

From the interviews with the top management group it was found that most of the managers had very limited understanding and comprehension of lean principles and SPS. Quantitative data gathered in the survey also pointed to similar discrepancies in SPS understanding between employees. Employees training and education surrounding SPS seemed to be lacking and limited mostly to a SPS game session. To see exactly what was taught in this training session the authors attended one of these.[2] Although the SPS game session was very interesting and enjoyable, it hardly contained enough substance for those attending to walk away with a deeper understanding of the true meaning and implications of SPS. Yet again it is found that there is no reason for perfection not being applicable to the H-department, however there are a number of underlying problems within the department, such as lack of knowledge and training that impede it.

7.2 Principles of lean production

7.2.1 Elimination of waste

According to lean production anything that does not add value to a product or service for the end customer is a waste. Therefore if the H-department successfully identifies what value means for them and their customers there is no reason why they wouldn't be able to eliminate any activities that don't contribute to this value. Any such non-value activity performed within the H-department is both a waste of resources and addition of unnecessary costs, but also clogs up the process with unnecessary work, which in turn hinders effective flow. From the quantitative data gathering four major sources of waste within the H-department were identified; waiting for information, waiting for work from other departments, excessive administrative paper work, and many unstructured meetings being held. The first two identified wastes of having to wait for information and waiting for work from other departments is believed to stem from exterior communication and cooperation inefficiencies. Yet again no reason is found why the principle of elimination of waste should not be applicable to the H-department, on the other hand as with many of the other principles, the greatest impeding factor is lack of knowledge and understanding when it comes to the definition of value and thus also the definition of waste.

7.2.2 Zero defects

This principle can be summed up as a proactive approach to preventing errors before they occur. It is effectively all about eliminating the source of errors so they can't occur again and therefore something that can be translated onto any organization within any industry. From the interviews and survey data it was found that quality assurance routines are not very well established within the H-department, most quality assurance seems to be centered on checking work for errors which is the exact opposite of a proactive approach and is a waste in itself. The lack of customer follow-ups, well-established routines and guidelines add to the problems. Nevertheless there are no reasons why this principle shouldn't be applicable to the

[2] This took place at Scania in Södertälje, 17 September 2008.

H-department. However it is found that lack of routines, standards, and common knowledge base surrounding the meaning of the principle are factors that could impede its implementation.

7.2.3 Pull instead of push

From the survey data and interviews it was found that the H-department already had a pull system with a lot of work being performed as demand for it was received from the customer and that their operation was ad hoc in nature. What is important here though is not the distinction between pull or push but which one supports the best fit considering the nature of an operation and the overall goal of successful flow implementation and elimination of waste. Findings within lean service research support this fact with the idea of the push instead of pull principle. For successful flow within non-manufacturing operations focus needs to be put on tight demand scheduling and advanced queue management system. With this being said there are no obstacles found that could impede the use of push instead of pull within the H-department. However it is obvious that tight demand scheduling and queue management systems are needed for it to succeed.

7.2.4 Multifunctional teams

Multifunctional teams is a key idea that stems from Taiichi's experiments in Toyota city. (Womack et al., 2007) It advocates that employees should work in groups, with equal amounts of work spread evenly over the groups. The quantitative data gathered all points to the fact that most employees within the H-department work individually with 67% of the respondents strongly agreeing with this statement. However, more importantly than working in groups, being organized into multifunctional teams implies that every team has the knowledge and skill required to perform most of the tasks performed by the other teams. (Womack et al., 2007) This facilitates labor mobility as it allows teams to rotate between tasks, which has a spillover effect on job satisfaction. All quantitative data points to that it is indeed possible to organize the employees in the H-department into multifunctional teams. Employees seem to be able to easily take over tasks from colleagues, and they seem empowered to make their own decisions. Thus no reasons are found as to why the employees in the H-department couldn't be reorganized into teams with the ability to handle multiple and varying tasks.

7.2.5 Decentralization

When the Toyota Production System (TPS) was first implemented the Toyota employees, due to historic factors, became a long term fixed cost. This made it essential for Toyota to take advantage of all the knowledge found in their workforce in their improvement work and to make sure that the employees themselves also improved by improving their skills through education and training. (Womack et al., 2007) This ties in with the notion of employee empowerment found in lean service thinking, training and improving the workforce together with empowering them by delegating responsibility ensures that the employees have all the necessary tools and power needed to successfully work with lean principles. (Bowen and Youngdahl, 1998) Empowering employees can be seen as decentralizing the decision making down to the ones closest to the decision which is a central part of TPS. (Womack et al., 2007)

Empowering the employees has the added affect of increasing work satisfaction and hence will have spillover effects on work performance. When it came to these factors the quantitative data gathering yielded very positive results. When it came to empowerment over 70% of all respondents felt that they could make their own decisions when it was needed in the daily work without involvement of those higher up in the chain, hinting that responsibility of decision making had been successfully pushed down and been decentralized within the H-department. Quantitative data surrounding job satisfaction showed that most employees were very happy with their work at Scania. Tied with this of course is that the employees should be continuously trained and improved in order to help improve the processes that they work with. On average employees within the H-department spend between two to ten days a year in training and education, however when asked if this was perceived as sufficient most employees seemed to want to attend more training and education days. Too sum it up, it is found that the H-department has already quite successfully decentralized and empowered their employees. The only factor that was found to impede its full integration is lack of knowledge mainly due to not having perfectly functioning information storage and sharing system.

7.2.6 Vertical information systems

Vertical information systems entails that information flows freely through the vertical hierarchies within an organization down to the relevant decision makers. It's universally translatable and an essential part of any efficient organization. It aims to correct one of the pitfalls of decentralization by making sure the right decision is made at all levels based on all the necessary information. If implemented successfully combined with decentralization and multifunctional teams it will facilitate flow and help decrease throughput times. When studying the H-department it was found that they already have a vertical information system called HR Inline. Data gathered from the survey shows that the employees within the H-department feel that the system is easy to use and is accessible. However survey data also points to the system not containing all the information that the relevant decision makers might need. Furthermore the use of this system varies greatly between employees and between departments and is thus not a de facto standard information system for the H-department. Here, we find no obstacles for the successful implementation of a vertical information system, in fact the H-department already has one, however what is lacking is the employees' and the H-departments' use of it.

7.2.7 Continuous improvements

Continuous improvement is synonymous with the principle of perfection found in lean thinking, and as previously stated is a common mindset and universal way of thinking that is borderless and can be translated onto any type of operation. However an important construct that needs to be satisfied as a precondition for successful flow creation and continuous improvement work is what Toyota calls *standard operations* also referred to as *normal situation* in Scania production systems. (Monden, 1983) In broad terms this entails standardizing all work practices with the use of clear guide lines, templates, and protocols. The interviews and the quantitative data all point to the fact that work within the H-department is not very standardized, however no factor that could impede it besides the previously mentioned lack of management commitment is found.

Standardization and standard work practices also has spillover effects since it helps bring problem areas to the surface, it facilitates the identification of deviations by making these visible and thus enables and enhances improvement work. (See *Scania Production System,* Appendix 1.4) This spillover effect is very important since striving for perfection, which continuous improvement aims to facilitate, is one of the central principles of lean thinking. (Womack & Jones, 2003) Continuous improvement is deemed the second most important principle in TPS, (Imai, 1986) with the goal being to take advantage of the knowledge that is contained within every employee to continuously improve all the processes within a company through small incremental improvements. For this to be successful it needs to be facilitated with such things as clear and easily available information regarding improvement work, the frequent use of improvement meetings, and improvement groups where ideas can be put forth and discussed. When asked about improvement group participation the quantitative data yielded interesting results with two extremes. This suggests that there is a great variety between improvement group participation within the H-department. However meetings alone wouldn't suffice for successful improvement work, it needs to be facilitated with clear and easily accessible information regarding this type of work and well established routines and communication channels to voice any such ideas. From direct observations it is known that the H-department has improvement boards on some of the sub-departments, intended to be used to communicate improvement work related information, however these boards are not always kept up to date in the manner that they should be. The quantitative data yet again supports that there are great discrepancies between the uses of these boards across the H-department. With improvement work in place and communication channels flowing freely routines needs to be in place to help capture and facilitate the improvement tasks. When it comes to this matter the quantitative data shows that such routines are indeed in place in the H-department, but again discrepancies across the department are identified. Here it is found that the lack of well established standard and routines are the biggest obstacles impeding the successful adoption of the continuous improvement principle.

8. Synthesis

In this chapter, a summary of our findings answering our research questions will be presented together with a section providing some managerial insights. Thereafter we will discuss the limitations of this thesis and conclude with a brief description of possible future research.

8.1 Answering research questions

Question 1: *Can lean principles be applied to operations with HR-functions?*

On a theoretical level everything points to that it can be applied. Studies like Ahlström (2004) show that some of the original lean principles are even more applicable to services than to manufacturing. Bowen & Youngdahl (1998) make the case that most manufacturing principles can be translated and adopted directly by the service industry using Taco Bell and McDonald's as examples. However successful adoption is not limited to these, Karlsson et al. (1995) conclude their study by saying that on a theoretical level it is entirely possible to use lean principles within the healthcare industry, and Swank (2003) documents improvement in productivity when lean principles were applied to an insurance company.

Furthermore the statement of lean principles being applicable is strengthened by the fact that our study finds that most of the lean principles are highly abstract and are generally more a way of thinking than anything else, making them universally translatable. Moreover data gathered in our study surrounding flow, points to the fact that an operation with HR-function is not all that different from a manufacturing operation. This of course is supported in the Ahlström (2004) study. Our interview and survey data has also made it abundantly clear that some sub departments have managed to apply lean principles on their operations to a much greater extent than others. This points to the fact that lean principles can indeed be applied to operations with HR-functions since we can already document affects of and see examples of it within our case subject.

Therefore we conclude by saying that Yes! Lean principles can indeed be applied to operations with HR-functions. However this does not answer the question of why some departments have managed to adopt lean principles to a greater extent than others, which leads us to our second research question.

Question 2: *What are the obstacles that could impede the adoption of lean?*

In our study of the applicability of lean principles to an operation with HR-functions, our survey and interview data revealed four broad factors that could impede the implementation of the principles to our case subject. The first of these was the lack of a common knowledge base when it came to process knowledge, value definitions, customer identification, and SPS. This lack of a common knowledge base within the H-department has very broad implications since it has effects on everything from value stream identification and flow creation to elimination of waste and striving for perfection. The second factor that we identified as impeding SPS adoption is the lack of universal routines, standards, and guidelines within the H-department. Without this type of standardization and standard work practices continuous

improvement work becomes next to impossible and the valuable knowledge stored within the employees go to waste. This leads us into the third factor that is impeding the adoption of lean principles, the lack of a fully functioning vertical information system. The risk here with a decentralized organization like our case subject, is that the hazard of wrong decisions being made due to lack of correct information inherent to decentralized organizations is increased. The fourth and perhaps the greatest factor impeding the adoption of SPS that we found is lack of management commitment. This of course has a spillover effect on all lean adoption work being performed by the H-department and serves as the biggest single factor impeding a lean adoption.

Here we conclude by saying that we found no factor that would suggest that lean principles couldn't be applied to a operation with HR-functions rather we found many latent organizational and managerial factors that serve to slow and impede its implementation. Nevertheless all the factors that we found are factors that can be solved if there is a will, and therefore our findings surrounding our second research question support our findings in our first research question that lean principles can indeed be applied to an operation with HR-functions.

8.2 Managerial implications

As the old saying goes "*If there is a will, there is a way*"; without a will to adopt SPS the entire project is doomed before it can even start. The lean principles are so much more than just a set of many isolated systems; it is rather an entire common mindset and set of principles that needs to flow through the entire company. Our interviews with top management had already shown us that not all managers believed nor have the will to adopt SPS. In our quantitative data analysis we tested how this was reflected on the rest of the employees with a series of open and closed questions. When it came to the general attitude and commitment towards SPS most respondents showed a positive attitude and believed that it would be fun to work with the implementation. When asked an open question regarding factors impeding SPS implementation, things such as lack of knowledge, lack of motivation, and management commitment were brought up. Quantitative data reinforced this fact with the respondents being equally divided between those feeling motivated and not feeling motivated to work with SPS by their respective managers.

When active participation is needed, reforms can be hard to implement. (Brunsson & Olsen, 1993) This is the case for the H-department and hence for the reform to be successful we believe that the initiative needs to come from the top down and all the managers needs to be "champions of this change". Our interviews with the management team and our gathered quantitative data all pointed to lack of management commitment as being one of the biggest factors impeding an SPS implementation. In our view this is where the entire change process needs to begin if Scania wishes to successfully implement SPS on the H-department. The management's lack of commitment can be due to things such as lack of understanding of SPS. This thesis hopes to remedy some of this by hopefully providing greater insight of the true meaning and importance of lean principles to the top management group. This should be complemented with top management attending training in SPS.

Our survey data also pointed to the fact that the lack of knowledge surrounding SPS, value definitions, and processes was not limited to the managers but to most of the employees within the H-department as well. For successful lean adoption and improvement work everyone within the H-department needs to speak the same language and understand the true meaning of lean thinking and lean principles. Thus here too we advocate that all the employees within the H-department should be enrolled in an extensive SPS education program.

When it comes to more concrete suggestions, we propose the following:

- *Specifying and identifying value streams*: The process should start with each individual sub division identifying and mapping exactly who their different customers are and what value means to them. This should then be compared across all the departments to identify overall customer value themes that apply to the whole H-department.

- *Flow*: When analyzing the applicability of flow, we advocated the use of a queue management system, what follows is a brief description as to how this system could look. Creating a steady flow with minimum inventory is central to the lean principles since it opens up the possibilities for simultaneous cost reductions, quality improvements, and efficiency improvements in terms of cycle times. (Reinertsen, 2005) Seeing the items in the queues can be very difficult in processes where these are invisible. However looking at these queues as inventories and not allowing them to grow beyond a certain size, hence effectively setting up a process pipeline constraint can yield dramatic results. A simple control of the queue size in product development has shown cycle time improvements of over 50%. (Reinertsen, 2005) This leads us to believe that similar improvements could be seen in the H-department by simple process mapping and process pipeline constraints. Reducing the batch sizes of incoming work tasks and spreading them over more individuals can effectively help reduce variations in process flow. Having many small batches of tasks rather than large batches of tasks can allow for more effective queue management, since any time spent waiting for a task can more easily be filled with other tasks. In other words having large batches locks the employees needed to process it to a fixed task for a long time and reduce their flexibility when it comes to variability in their work. However having small batch sizes can increase the flexibility of employees and hence the ability of a process to handle variability. Our quantitative findings point to the fact that the H-department has high variability, which leads us to conclude that splitting tasks into small batch sizes could yield improvements in variability-handling and thus also a steadier flow.

- *Elimination of waste*: In our analysis we identified four sources of waste within the H-department namely waiting for information, waiting for work from other departments, excessive administrative paper work, and many unstructured meetings being held. We don’t have enough data within the scope of this thesis to come with any concrete

suggestions for the elimination of all these wastes; nevertheless we feel that the fact that these problems are brought to light is a useful managerial insight in itself and something that should be addressed. The waste of excessive administrative paper work however can be addressed using standardized templates, automated systems, and by removing any such work that is identified as not adding any value to the end customer. An example of successful removal of such paper work has already taken place and was brought to light in one of our interviews where we were told that travel expense payment confirmations had recently been removed as an administrative task and instead replaced with an automated system with reports being posted and made available for employees on HR Inline. Thus we advocate critical evaluation of all administrative paper work and suggest the usage of similar solutions whenever possible. When it comes to unstructured meetings, the same rationale should be used. All meetings that don't add value should be eliminated, and the remaining meetings need to be well structured and organized so that the time of employees is not wasted.

- *Standardization*: in our research it was made abundantly clear that there was a lack of universal standards, protocols, templates and guidelines when looking at the H-department as a whole. Without this identifying defects and eliminating their source becomes next to impossible. Thus we advocate the creation and implementation of H-department wide standards, protocols, templates, and guidelines in all shared processes.

- *Continuous improvement*: When it came to improvement work we found great discrepancies between departments, as part of creating a common mindset and trying to capture all the knowledge found within employees is of utmost importance that everyone within the H-department participates in this type of work as part of their day to day activities. A suggestion to facilitate improvement work is to standardize the way improvement ideas are communicated and stored using standard templates that needs to be filled in when an employee wishes to voice an idea.

8.3 Discussion

As has been stated and discussed in the methodology chapter, we feel that this thesis has taken every precaution to secure both the reliability and validity of the study. Nevertheless when it comes to the external validity, it should again be emphasized that the findings of this thesis are limited to the case subject, as is the case with most exploratory case studies. The findings surrounding the first research question is however more generalizable than the findings surrounding the second research question. Partly because it reinforces findings from previous research, surrounding the application of lean principles on other types of operations, but also since it points to lean principles indeed being applicable to operations with HR-functions at a higher level of abstraction. When it comes to the second research question, the obstacles identified as impeding the implementation of lean principles is solely limited to our case subject. Nevertheless managers of other similar operations could use it as a starting point when trying to identify factors impeding their implementation work.

Another issue that needs to be discussed is the internal validity of this thesis. In order to adhere to the anonymity that was promised to all interviewees, we chose not to reference any of the comments from the interviews to specific respondents. This choice was made since even anonymous referencing could allow informed people within the H-department to discover patterns and draw conclusions surrounding an interview subject's identity. For the same reason we will only present the results obtained from the survey as an aggregate anonymous report of the entire H-department and not as a report divided in a sub-department level. Nevertheless we still want to assure the readers that we have presented a true picture as to the state of the H-department and that we have in no way enhanced or modified any of our results. This being said, we feel confident that the internal validity of this thesis is high.

8.4 Further research

What has been found throughout the preparation and execution of this thesis is that there are several operational areas where lean applicability is still unexplored. The process of lean coverage is nevertheless well on its way, and where this thesis aims to contribute. As the research within this field has developed, many types of operations have shown signs of lean applicability. There are already examples of successful lean implementation within a wide variety of operations such as fast food chains, airline companies, insurance companies, and hospitals. However what we have found to be missing is a universal set of principles that can be applied to any type of operation. We therefore feel that further research into the possibility of such a universal set of lean principles would be very interesting and could prove extremely useful. Nevertheless we acknowledge that such research will take a lot of time and effort, and that the field of lean needs to mature significantly before such research can be undertaken.

One of the findings within this thesis is that it is crucial to have total management support and commitment in order to successfully implement lean principles within a department or company. The book *"Lean thinking"* by Womack and Jones (2003) provides a framework for managers that want to implement lean within their company. However, this framework is mostly focused on manufacturing operations. A similar framework for managers within other types of operations could prove very useful and would be interesting as future research.

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Manager 5, H-department, 14 October 2008.

Manager 6, H-department, 14 October 2008.

Manager 7, H-department, 16 October 2008.

Manager 8, H-department, 16 October 2008.

10. Appendices

Appendix 1 - Scania

1.1 Scania's background

Today Scania is one of the global industry leaders when it comes to heavy transports, busses, industry and marine motors. A growing part of the business concerns financial products and services. This allows Scania to guarantee their customers cost-effective transportation solutions and high degrees of availability. Scania operates within hundreds of countries but it has not always been so.

It all began in 1891 when Philip Wersen who had been married in to the industrial family of Ekenberg contacted Surahammar's bruk with a proposition of starting a railroad carriage factory together. At the time Surahammar's bruk was the leading producer of wheels and spare parts for railroad carriages. Phillips proposition was accepted with open arms and in December 1891 VABIS (Vagnaktiebolaget i Södertälje) was born. In 1911 VABIS and Scania merged, up until then Scania had been situated in Malmö and had mainly been producing bicycles. The new company Scania-Vabis merged to meet the increasing European competition, the newly formed company focused entirely on the production of trucks, cars, and busses and the era of producing bicycles and railroad carriages ended.

In 1921 times caught up with the company and they were faced with severe economic difficulties. New capital was needed and Scania-Vabis found their savior in the Wallenberg owned Stockholms Enskilda Bank. In these tough times two strategic decisions that would shape Scania's entire future were made. First of all production was relocated to Södertälje and the production of cars was halted. These changes together with the addition of new capital allowed Scania-Vabis to grow into a technological leader within their industry.

In 1969 Scania-Vabis and Saab joined forces to become Saab-Scania, however this union was not meant to last forever. In 1995 Scania went back to its roots and became an independent company, and in 1996 they were listed on the stock exchange.

1.2 Current state

Since Scania's humble beginnings in 1891 it has evolved in to a market and technological leader within their industry and Scania have until today produced over 1,000,000 trucks and busses. In direct contrast to most of their competitors Scania has chosen to focus entirely on the heavy transport segment. Today Scania operates in over a hundred countries and has around 35,000 employees. Out of these 35,000, around 2,400 employees work with research and development in close connection to the manufacturing departments. Scania has production facilities in Sweden, France, Brazil, Netherlands, Russia, and Poland their central purchasing function is located in Södertälje but is complemented by local purchasing functions in Poland, the Czech Republic, the USA and China making Scania a truly global company. Strengthening this global presence is the fact that almost 95% of Scania's production is sold abroad and that 60% of 35,000 employees live and work outside of Sweden.

Scania is one of the most profitable companies within its industries and have shown positive figures for the last 70 years. 2007 was not different and a year of strong growth for Scania with overall sales increasing by 26%. (Scania annual report 2007) The demand for trucks

increased dramatically in Europe with the growth being fueled by ever increasing logistics and transport needs of the EU countries. Just as in Europe the Russian market grew too, fueled by increasing cross-border trade. In Latin America the demand for trucks increased mainly due to increasing world demand and production of ethanol from sugarcane plantations. Asia, the Middle-East, and Africa are still new markets for Scania and currently big investments are being made in the infrastructure to meet the future demands of these markets.

1.3 Brief description of H

The specific subject of this thesis is the H-department at Scania. The department consists of 250 employees, divided into seven different sub-departments along with an overhead function. The sub-departments are each responsible for different areas covered by the overall H-department. A brief explanation of what the sub-departments contain of will follow:

- *H* – Human Resources Support. This is the overhead function of the entire H-department, containing the manager for H and also another manager that among other things deals with external relations as well as acting as a support for other departments within H as well as outside H. There is also a function that acts as local HR manager for the H-department and that also has customers within the entire H-department as well as the C-department, Corporate Relations.
- *HC* – Competence and development. The department includes being responsible of all courses offered to the Scania employees, the Scania Industrial High School and the Scania Trainee Program. *Employer Branding* is also an important issue that HC is working with, in order to make Scania a more attractive employer.
- *HE* – Personnel Support. This department has several different areas in which they operate, including Occupational Health (the healthcare center) (open to both Scania employees and the public), the sports facilities, the housing office, the visits and events, the administration of employee cars, the internal post office and the internal bus- and taxi-service.
- *HF – Legal Legislations* (Employer Related Issues). The areas of this department concern the legal issues related to the employees, such as union questions and rehab-programs. The department also offers education to managers and HR dealing with these issues. *HK* – Coordination and development. This department actually only consists of one person, working with Scania's global rating system, *Blue rating*. This person is also working on evaluating different written policies for Scania and is also part of the network of the HR processes, which will be further explained later on.
- *HL* – Salary and systems. The employees of this department are dealing with all the salary related issues for entire Scania, that is the paying out of salaries, handling the salary system, working with the statistics and revisions of the salaries and also the collective agreement for the people within the manufacturing departments.
- *HS* – Human Resources Support Sweden. This department has also several different activities on their table, including handling the internal information site HR Inline, they are responsible for the administrative personal systems and the department manages also the Scania diversity plan.

As one can see from these descriptions, there are a lot of different activities going on inside the department of H. As one may also notice, there are not any pure human resource activities. These activities are managed by the HR-managers and personnel at the different departments of Scania, so called local HR-managers. There is for example one HR-department at the chassis department that includes within the unit Production & Procurement. Five local HR-managers within the research and development department, and so on, all and all there are 21

of these local HR-departments. These are the departments that do all the recruitment work and all the other matters regarding the employees that recur regularly. The role of the overall H department, note that it is not called the overall *HR* department, thus becomes being the support to the decentralized HR-departments. But the H-department should also act as a supporting department for the executive board and all the other managers and employees across Scania.

The HR-processes mentioned earlier are explained here. These five processes lays outside both the H-department *and* the local HR-departments and are each owned by one of the local HR-managers and the aim is that these processes shall improve the activities belonging to each of the processes. The five processes are recruitment, employer branding, management planning, competence development and remuneration. The work with these processes has however just started, so there are unfortunately yet no results to analyze.

1.4 Brief description of SPS principles

Scania Production System (SPS) has its roots in the Toyota Production System (TPS) and lean production principles. The principles behind it are essentially the same and the differences mainly lie in the vocabulary used. The SPS system is built on three value grounds which reflect Scania's culture. The first one is **Customer first:** This implies always keeping the customer in focus during day to day work and when important decisions are made. The second value ground is **Respect for the individual:** Scania employees should feel respected by their superiors, colleagues, and should feel that they can make a difference. Furthermore everyone should be given the opportunity to develop. The third and final value ground is **Elimination of waste:** Scania strengthens their competitive force by getting rid of all waste, such things as quality problems, stoppages in production, and unnecessary work is all considered waste.

From these three value pillars rise the SPS house and Scania's four main principles**. (A) Steady state – Standardized work:** By achieving a normal state Scania manages to see deviations and identify where improvements can be made. They work in standardized ways with a steady and even flow of activities. They use visual cues so everyone can see what is going on and what is normal and what isn't normal. Information is also continuously relayed directly to those that need it. **(B) Right from me:** This implies that Scania employees don't accept, add, or pass on any deviations that they run in to. Instead every employee has the knowledge, tools, and information needed to do their work right from the beginning. If a standard has been followed and deviations still occurs then there is a common responsibility to immediately improve the standard so the deviation doesn't occur again. **(C) Demand driven production:** Production only begins when there is a signal from a customer that there is a need. This helps the planning process and allows Scania to avoid wastes in the form of over-production. **(D) Continuous improvements:** This is part of the everyday work at Scania and involves continually challenging and improving the steady state, but also finding sources of errors and deviations and making sure it can't happen again.

When the value grounds and principles are combined it aims to give Scania employees a common compass to guide them in their daily work. To make decision making quicker and easier Scania has established a priority list when it comes to decisions. Number one this list is **Saftey & environment**, second is **Quality**, third is **Delivery** and the fourth one is **Economy**. That quality comes before delivery implies that Scania doesn't deliver a product unless it fulfills all quality standards. However the priority list is only static when a decision has

effects on two different priorities in opposite ways. Then the highest listed priority is the one that needs to be considered first.

Just as in Toyotas Production System all these values and principles are combined with management and leadership principles. Scania has filtered this down too five principles that act as a starting ground for all leadership within the entire Scania company.

First of these principles is **Coordinate but be self-sustaining and take responsibility**: This implies that managers should act independently and cross functionally, take initiative and dare to question guidelines whilst still following them. The second principle is **Work with the details and understand the big whole:** Managers at Scania should actively acquire all the information they can about the details, take responsibility for their own work and their groups work and results. The third principle is **Act now – Think long-term:** This implies that managers should act now and here but always think about the long-term effects of their decision. The fourth principle is **Continuous learning:** Scania managers should continuously increase their own knowledge base and the knowledge base of their colleagues. They should try to develop the business by continuously questioning what they do and how they do it. The fifth and final principle is. **Stimulate involvement by participation:** Managers at Scania need to be available, clear, open and good listener and reflect this in the way that they lead. They need to stand for what they do and stimulate others to act.

Appendix 2 - Data collection protocols

2.1 Interview protocol (data collection phase one)

Organization

1. What is/are your department's current objective/s? (Short-term and long-term)
2. Would you say that your department works according to standardized methods & principles? If so which ones?
3. What have you recently done to enhance your productivity?

Processes, flow

1. Describe the main processes of your department. (see cross-overs)
2. Do you think your department has a good flow of activities? (Takt)
3. In your opinion is there anything that hinders processes in your department from being as smooth as they could potentially be?

Information, communication

1. How do you communicate across departments within H?
2. How do you communicate within your own departments? (Mostly e-mail, phone-calls, personal meetings?)
3. Would you say you have a clear picture of what other departments within H are working on and how they are performing?
4. Do you feel well-informed from your superiors?
5. How do you keep everyone in the department up to date on events/status?

Creating value, eliminating waste

1. What is the biggest problem in your department, and what do think could be done to overcome it?
2. What would you characterize as waste in your department?
3. What have you done recently to reduce waste?
4. What do you do if you discover errors/deviations?
5. What value do you create for your end customer? (Is that what the customers consider as value too?)

Improvements

1. How do you work with improvements?
2. What is the most recent improvement you did in your department?
3. Do you have any improvement groups?
4. If an employee has an improvement idea, how would they go about voicing it?

Quality

1. What do you do to ensure quality within your department? What is the last improvement you've done to ensure quality?
2. What have you done/the last things you've done to ensure safety/environment?

Cost

1. What have you done/the last things you've done to minimize costs?
2. What is your greatest cost within your department?

Leadership, employees

1. Do your employees work mostly on their own, or together in groups?
2. How do you capture and retain competence within your department?
3. What do you do to motivate and develop your employees? (within department & central H)

Customer, delivery

1. Who would you say is your customer(s)?
2. What drives your production?
3. How does the demand for your services fluctuate over time?
4. What are the last things you've done to improve delivery times and ensure delivery on time?

SPS-questions

1. What do you see as being the biggest problem(s) with applying SPS to your department(s)?
2. Why do think the central H is the last department at Scania to implement SPS?
3. What do you think would be the biggest adjustment adopting SPS from production to Service/administrative operations?

2.2 Constructs

- Management commitment
- Common mindset
- Standardization
- Cooperation
- Quality
- Common knowledge base
- Communication
- Waste
- Improvement
- Key measurements
- Flow
- Employee satisfaction

2.3 Questions to all constructs

Management commitment
Är dina överordnade lättillgängliga? (skala)
Känner du dig motiverad av dina överordnade att jobba med SPS? (skala)

Common mindset
Tror du att det är möjligt att skapa ett övergripande normalläge för hela H? (ja/nej)
Hur lång tid tror att det skulle ta att implementera SPS till fullo inom hela H? (skala)

Vilka grundläggande värderingar följer ni inom din avdelning? (öppen)
Känner du att det är lätt att förändra saker inom din avdelning? (skala)
Vad tror du är de huvudsakliga hindrena för att implementera SPS på H? (öppen)

Standardization
Följer ni några standarder eller riktlinjer? (Öppen fråga)
Skulle du säga att ni har ett definierat normalläge? (ja/nej)
Följer ni några dagliga rutiner och mönster på din avdelning? (ja/nej) Om ja, vilka?

Cooperation
Hur jobbar ni inom er avdelning– individuellt eller i team? (multiple)
Hur väl fungerar samarbetet med andra avdelningar? (Skala)
Sitter du och dina arbetskollegor nära varandra? (ja/nej)
Känner du att du har bra koll på dina kollegors arbetsuppgifter? (skala)
I vilken utsträckning kan du hoppa in och ta över en kollegas arbetsuppgifter? (skala)

Communication
Hur ofta använder du HR Inline?
Har ni tydliga mål inom er avdelning? (ja/nej)
Om ja, vad är målet? (öppen)
Har ni tydliga mål inom centrala H? (ja/nej)
Om ja, vad är målet? (öppen)
Hur många möten per veckan deltar du i? 0-5 möten, 5-10 möten. (skala)
Utav din arbetsvecka, hur många timmar tillbringar du i möten? (Skala)
Vad är ert huvudsakliga kommunikationsmedel inom avdelningen? (multiple)
Protokollförs mötena? (ja/nej)
Hur lättillgängliga är protokollen för dig? (skala)
Tar du och dina medarbetar del av protokollen? (skala)
Skulle du säga att era möten är välstrukturerade? (Skala)
Hur tar du del av ny information? (multiple) (Inline, möten, e-mail, rykten)
Känner du dig välinformerad från dina överordnade? (skala)
Vilket sätt tror du är det bästa sättet att kommunicera på inom din avdelning? (öppen)
När tog du senast del av informationen på er förbättringstavla?
Hur många gånger i veckan sker detta?

Quality
Vad gör du/din avdelning för att undvika misstag?
Har ni något kvalitetssäkringssystem inom er avdelning? (ja/nej)
Om ja, vilket, vilka? (öppen)
Hur garanterar du att det du lämnar ifrån är rätt?
Händer det ibland att misstag uppstår? I så fall, vad tror du är den huvudsakliga anledningen?

Common knowledge-base
SPS-relaterade frågor, se om de har bra koll utan att ställa direkta frågor?
Vad innebär begreppet SPS för dig?
SPS är ett system som från början bara handlade om ren produktion, hur tillämpbart tror du det är på en administrativ avdelning? (skala)
Vad innebär ordet process för dig? (öppen)
Vilka är din avdelnings huvudsakliga processer? (öppen)

Har ni gått någon SPS-utbildning? (ja/nej)
Vilka är era huvudsakliga kunder? (öppen)
Vilka avdelningar tror du har kommit längst i sitt SPS-arbete? (Rangordna)

Waste
Tycker du att du ägnar mycket tid åt dubbelarbete? (skala)
Tror du att något av de ni gör på din avdelning är ungefär samma saker som någon annan avdelning gör? (ja/nej)
Om ja, vad? (öppen)
I vilken utsträckning ägnar du dig åt pappersarbete? (skala)
Jobbar ni med att försöka minska kostnader? (ja/nej)
Vilka är dina huvudsakliga kostnader? (öppen)
Vad skulle du säga är de största problemen inom din avdelning? (öppen)
Tycker du att ni har tillräckligt med anställda för att klara av den arbetsbördan ni har? (Multiple)
Brukar du få vänta på nödvändig information för att slutföra dina arbetsuppgifter?
Brukar du få vänta på andra avdelningar för att kunna slutföra ditt eget arbete?
Brukar du förflytta dig mycket för att komma till olika möten?
Hur får du/tar du del av den information som du behöver för dina arbetsuppgifter?
Tycker du att det är lätt att ta del av information på HR Inline?
Tycker du att du hittar den information du vill ha på HR Inline?

Improvements
Vad gör ni när ett problem uppstår inom er avdelning? (Multiple/öppen)
Jobbar du inom någon förbättringsgrupp? (ja/nej)
Känner du dig motiverad av din chef att lyfta fram problem som finns i avdelningen och komma med förbättringsförslag? (ja/nej)
Hur går du tillväga om du har en förbättringsidé? (öppen)
Har du några förbättringsförslag för din avdelning? (öppen)

Key measurements
Känner du att uppföljning sker i tillräcklig utsträckning på din avdelning? (skala)
Har ni några nyckeltal på er avdelning? (ja/nej)
Om ja, vilka? (öppen)
Använder ni er av något styrdokument inom er avdelning? (ja/nej)

Flow (pull)
Skulle du säga att dina arbetsuppgifter har ett brett eller smalt omfång?
Känner du att kraven på din arbetsinsats varierar från uppgift till uppgift?
Har dina arbetsuppgifter tydliga start- och slutpunkter?
Sker delmomenten i dina arbetsuppgifter i en tydlig ordningsföljd?
När får du/tar du del av den information som krävs för dina arbetsuppgifter? (Multiple)
När måste du fatta beslut för att sköta dina arbetsuppgifter? (Multiple)
Kan du förutspå flödet av kommande arbetsuppgifter?
I vilken utsträckning varierar dina arbetsuppgifter? (skala)
Skulle du säga att dina arbetsuppgifter är likartade från dag till dag?
Hur flödar dina arbetsuppgifter in till dig? (Multiple)
Använder du dig mycket av färdiga mallar i ditt arbete?
Är ni beroende av andra personer, leverantörer, avdelningar? Vilka? (öppen)

Employee satisfaction
Vilken var den senaste utbildningen du gick på? (öppen)
Hur många utbildningar går du per år? (skala)
Skulle du vilja gå på flera utbildningar? (ja/nej)
Vad hindrar dig från att göra detta? (öppen)
Hur motiverad känner du dig i ditt dagliga arbete? (skala)
Vad är mest givande för dig med ditt arbete?
Anser du att du har mycket ansvar inom din avdelning?
Känner du att har möjlighet att ta egna beslut när så krävs utan att fråga någon överordnad?

2.4 Survey protocol

1. Vilken avdelning jobbar du på?
2. Frågor kring din avdelning.
Jag känner att jag har möjlighet att ta egna beslut när så krävs utan att fråga någon chef.
Jag anser att jag har mycket ansvar inom min avdelning.
Mina chefer är lättillgängliga.
Det är lätt att förändra saker inom min avdelning.
Vi har ett definierat normalläge på min avdelning.
Vi har tydliga mål för vår avdelning.
Om du anser att ni har tydliga mål för din avdelning, hur påverkar dessa dig i ditt arbete?
3. Frågor kring dina arbetsuppgifter.
Mina arbetsuppgifter har tydliga start- och slutpunkter.
Kraven som ställs på min arbetsinsats varierar från uppgift till uppgift.
Delmomenten i mina arbetsuppgifter sker i en tydlig ordningsföljd.
Jag tar del av den information som krävs för mina arbetsuppgifter i början av uppgiften.
Jag kan förutspå flödet av kommande arbetsuppgifter.
Mina arbetsuppgifter varierar i stor utsträckning.
4. Frågor kring rutiner.
Mina arbetsuppgifter är likartade från dag till dag.
Jag använder ofta färdiga mallar i mitt arbete.’
Uppföljning av genomfört arbete sker i kontinuerligt på min avdelning.
Vi använder oss av nyckeltal på vår avdelning.
Vi använder oss av styrdokument på vår avdelning.
Våra möten protokollförs alltid.
Våra möten är välstrukturerade.
Inom vår avdelning har vi utarbetade rutiner för att säkra kvaliteten på arbete vi utför. (Så att inga fel i arbetet uppstår.)
Om några specifika standarder eller riktlinjer följs, beskriv dem här med en mening var.
5. Frågor kring samarbetet inom avdelningen.
Jag kan hoppa in och ta över en kollegas arbetsuppgifter.
Jag sitter nära de kollegor jag arbetar mest med.
Jag brukar få vänta på nödvändig information för att slutföra mina arbetsuppgifter.
Jag arbetar mest på egen hand.
Utav din arbetsvecka, hur många procent av din totala arbetstid tillbringar du i möten?
Vad är ert huvudsakliga kommunikationsmedel inom avdelningen?
Enligt din åsikt, vad är det bästa sättet att kommunicera på inom din avdelning?
6. Personalrelaterade frågor.

Jag anser att vi är för få anställda för att på ett bra sätt klara av vår arbetsbörda.
Jag känner mig motiverad i mitt dagliga arbete.
Jag känner mig motiverad att lyfta fram avvikelser som finns inom avdelningen.
Jag känner mig motiverad att komma med förbättringsförslag inom avdelningen.
Jag skulle vilja gå på flera utbildningar per år än vad jag nu gör.
Jag anser att vi är för många anställda för den arbetsbördan vi har inom avdelningen.
Hur många utbildningsdagar går du på i snitt per år?

7. Frågor kring den löpande verksamheten.

Inom vår avdelning jobbar vi aktivt med att försöka minska kostnader.
Jag anser att jag tillägnar mycket tid åt administrativt pappersarbete.
Jag anser att jag tillägnar mycket tid åt dubbelarbete.
Jag kontrollerar alltid att det jag lämnar ifrån mig är felfritt.
Jag hittar alltid den information jag behöver på HR Inline.
Jag tycker att det är lätt att ta del av information som finns på HR Inline.
Hur många gånger per vecka använder du HR Inline?

8. Frågor kring SPS.

Enligt din egen åsikt, vad innebär Scania Production System för dig?
Jag ingår i en grupp där vi varje vecka träffas och diskuterar hur vi tillsammans kan förbättra vår verksamhet.
Jag tar del av informationen på vår förbättringstavla mer än en gång i veckan. (Svara endast på frågan om det finns en sådan tavla.)
Jag tror att SPS är tillämpbart på en administrativ avdelning, även om det från början bara var avsett för produktion.
Jag känner mig motiverad av mina chefer att jobba med SPS.
Jag tycker själv att det skulle vara kul att implementera SPS i vår verksamhet.
Inom vår avdelning har vi rutiner för hur förbättringsidéer ska lyftas fram.
Namnge de SPS-utbildningar du har gått här. (Om du inte har gått någon utbildning lämnar du blankt.)
För att SPS ska kunna implementeras på H, vad tror du är viktigt att tänka på? Vad kommer att bli nycklar till framgång?

9. Frågor som berör hela H-avdelningen.

Jag brukar få vänta på andra avdelningar för att kunna slutföra mitt eget arbete.
Samarbetet med andra avdelningar fungerar väl.
Det finns tydliga mål för H.
Jag tror att det är möjligt att skapa ett övergripande normalläge för hela H.
Jag anser att det finns alltför stora hinder för att införa SPS på H.
Vad skulle hindra H från att införa SPS? Ser du några utmaningar?
Hur lång tid tror du det skulle ta att införa SPS till fullo inom hela H?

Appendix 3 – Survey results

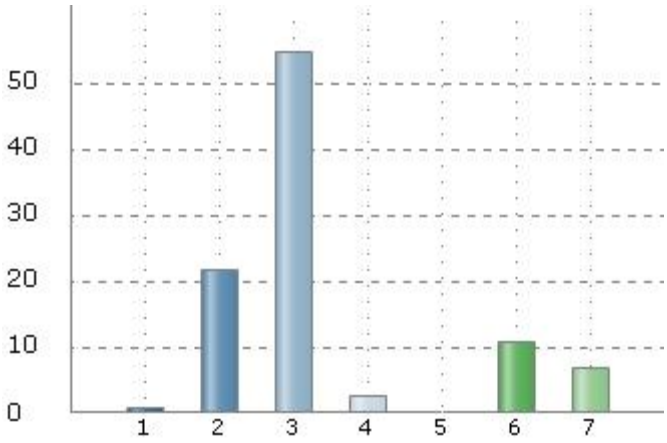
SPS på H

1. Vilken avdelning jobbar du på?

Besvarad av: 152 (97%) Ej besvarad av: 5 (3%)

Välj ett alternativ

1	H centralt	2 (1%)
2	HC	34 (22%)
3	HE	83 (55%)
4	HF	5 (3%)
5	HK	0 (0%)
6	HL	17 (11%)
7	HS	11 (7%)



2. Frågor kring din avdelning

(1. Med ett normalläge menas att man arbetar efter ett standardiserat arbetssätt, där man lätt kan notera ev. avvikelser. 2. Med mål menar vi sådana saker som styr avdelning mot ett speciellt håll, vilka riktlinjer som finns för att alla ska arbeta för att uppnå samma sak.)

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Jag känner att jag har möjlighet att ta egna beslut när så krävs utan att fråga någon chef.	51 (37%)	40 (29%)	22 (16%)	7 (5%)	7 (5%)	8 (6%)	2 (1%)	*2,28*	137/157 (87%)
2 Jag anser att jag har mycket ansvar inom min avdelning.	51 (37%)	55 (40%)	15 (11%)	9 (7%)	7 (5%)	0 (0%)	1 (1%)	*2,02*	138/157 (88%)
3 Mina chefer är lättillgängliga.	39 (28%)	43 (31%)	30 (22%)	14 (10%)	8 (6%)	3 (2%)	1 (1%)	*2,4*	138/157 (88%)
4 Det är lätt att förändra saker inom min avdelning.	13 (9%)	43 (31%)	43 (31%)	13 (9%)	15 (11%)	9 (7%)	1 (1%)	*3,01*	137/157 (87%)
5 Vi har ett definierat normalläge på min avdelning.	12 (9%)	33 (24%)	39 (29%)	19 (14%)	14 (10%)	11 (8%)	7 (5%)	*3,18*	135/157 (86%)
6 Vi har tydliga mål för vår avdelning.	28 (21%)	42 (31%)	34 (25%)	7 (5%)	11 (8%)	9 (7%)	4 (3%)	*2,68*	135/157 (86%)

Besvarad av: 17 (11%) Ej besvarad av: 140 (89%)

Om du anser att ni har tydliga mål för din avdelning, hur påverkar dessa mål dig i ditt dagliga arbete?

"Jag har lätt att veta vad jag ska göra och vad som förväntas av mig"

"Det är ett bra styrmedel"

"Jag vet vad som förväntas av mig i min arbetsroll, enklare att prioritera."

"I allt jag/vi gör så strävar jag/vi efter att nå upp till målen i olika avseenden."

"Jag vet vad jag ska göra utan att prata med en chef hela tiden."

"Jag vet vad som ska göras och när."

"Därför jag hur jag skall utföra mitt arbetet"

"Offtast positivt,man känner sig minnst sagt delaktig i utvecklingen att uppehålla/förbättra tjänster till våra kunder som är styrande i vårt verksamhet."

"Att prioritera projekt."

"jag vet vilket fokus jag ska ha"

*"Funktionen bedriver händelsestyrda It projekt
enl metoder som nyttjas inom Scanias It verksamhet vid projektarbete"*

"Vid planering och prioritering"

*"Att överträffa på oss ställda förväntningar och överträffa/kundens/elevers förväntningar.
Att vara lyhörd för förbättringsförslag från kund, för att göra det bättre i morgon/ nästa utbildningstillfälle."*

"En ledstjärna som visar vart vi ska, och vilken riktning arbetet ska ha. Vad göra och hur."

"Jag har mycket ansvar, men önskar mer stöd från chefer. Att dom tar ansvar."

"De hjälper mej att prioritera."

"Lätt att ta egna beslut och därmed vinner tid"

3. Frågor kring dina arbetsuppgifter

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Mina arbetsuppgifter har tydliga start- och slutpunkter.	25 (19%)	42 (31%)	30 (22%)	21 (16%)	6 (4%)	9 (7%)	2 (1%)	*2,76*	135/157 (86%)
2 Kraven som ställs på min arbetsinsats varierar från uppgift till uppgift.	44 (33%)	51 (38%)	22 (16%)	9 (7%)	3 (2%)	4 (3%)	2 (1%)	*2,16*	135/157 (86%)
3 Delmomenten i mina arbetsuppgifter sker i en tydlig ordningsföljd.	12 (9%)	29 (22%)	52 (39%)	18 (14%)	8 (6%)	11 (8%)	3 (2%)	*3,11*	133/157 (85%)
4 Jag tar del av den information som krävs för	38 (28%)	50 (37%)	28 (21%)	9 (7%)	4 (3%)	1 (1%)	4 (3%)	*2,18*	134/157 (85%)

mina arbetsuppgifter i början av uppgiften.									
5 Jag kan förutspå flödet av kommande arbetsuppgifter.	15 (11%)	38 (28%)	30 (22%)	18 (13%)	25 (19%)	6 (4%)	3 (2%)	*3,14*	135/157 (86%)
6 Mina arbetsuppgifter varierar i stor utsträckning.	50 (38%)	54 (41%)	13 (10%)	6 (5%)	5 (4%)	3 (2%)	2 (2%)	*2,02*	133/157 (85%)

4. Frågor kring rutiner

Dina egna rutiner och avdelningens. (Med styrdokument, påstående 5, menar vi sådana dokument som på ett eller annat sätt påverkar hur du utför ditt dagliga arbete.)

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Mina arbetsuppgifter är likartade från dag till dag.	8 (6%)	24 (18%)	40 (30%)	17 (13%)	19 (14%)	24 (18%)	1 (1%)	*3,66*	133/157 (85%)
2 Jag använder ofta färdiga mallar i mitt arbete.	9 (7%)	36 (27%)	33 (25%)	21 (16%)	14 (11%)	17 (13%)	1 (1%)	*3,35*	131/157 (83%)
3 Uppföljning av genomfört arbete sker i kontinuerligt på min avdelning.	18 (14%)	28 (21%)	40 (31%)	15 (11%)	18 (14%)	9 (7%)	3 (2%)	*3,11*	131/157 (83%)
4 Vi använder oss av nyckeltal på vår avdelning.	28 (21%)	26 (20%)	17 (13%)	15 (11%)	15 (11%)	15 (11%)	15 (11%)	*3,07*	131/157 (83%)
5 Vi använder oss av styrdokument på vår avdelning.	25 (19%)	33 (26%)	22 (17%)	13 (10%)	11 (9%)	5 (4%)	20 (16%)	*2,7*	129/157 (82%)
6 Våra möten protokollförs alltid.	59 (45%)	41 (32%)	9 (7%)	3 (2%)	8 (6%)	6 (5%)	4 (3%)	*2,03*	130/157 (83%)
7 Våra möten är välstrukturerade.	18 (14%)	50 (38%)	32 (24%)	12 (9%)	13 (10%)	3 (2%)	3 (2%)	*2,7*	131/157 (83%)
8 Inom vår avdelning har vi utarbetade rutiner för att säkra kvaliteten på arbete vi utför. (Så att inga fel i arbetet uppstår.)	19 (15%)	40 (32%)	29 (23%)	12 (10%)	12 (10%)	8 (6%)	4 (3%)	*2,85*	124/157 (79%)

Besvarad av: 10 (6%) Ej besvarad av: 147 (94%)

Om några specifika standarder eller riktlinjer följs, namnge dessa här och beskriv med en mening var.

"Vi har massor"

"Vi följer riktlinjer för tjänstebilar från företaget och skatteverket"

"SPS Värderingsresa"

"Lagar, kollektivavtal, andra avtal, företagets regler och policys"

"SPS-huset, vi använder grunden (kärnvärden), har börjat mer och mer arbeta med att hitta normalläge för att kunna komma med förbättringar.
Hälsoprinciper - använder den i det dagliga arbetet med att förmedla tankesättet
Arbetsmiljöhandboken - i alla frågor som rör arbetsmiljöarbete, utveckling etc. Det var några det finns säkert mer"

"Intern verksamhetsbeskrivning, som beskriver allmänna rutiner etc. på arbetsplatsen. "

"Dels har vi rutiner och mallar etc, DELS innebär arbetet att många uppdrag skräddarsys OCH att det sker många ändringar co anpassningar under uppdragets gång = vi kan inte alltid följa den 'korrekta' turordningen i momenten. "

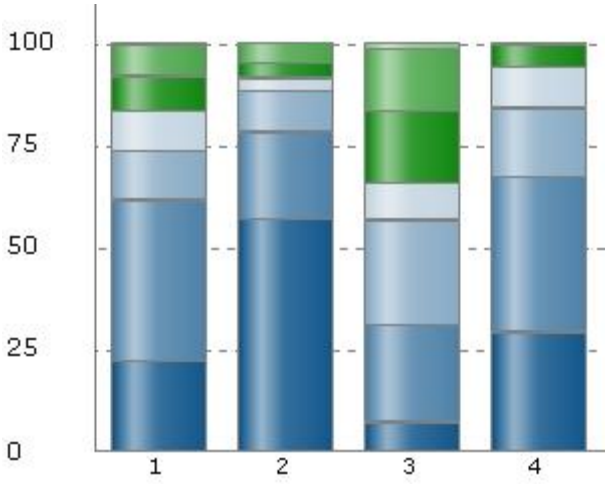
"Då vi berdiver It projketarbete på funktionen
kvalitetssäkras arbetet i de olika projekten enl ett antal Scania metodiker,RUP, PPS etc"

"Skolverket betygskriterier för idustriprogrammet www.skolverket.se
Strategisk plan hc 2009+ competence_development$ on 'sesoco0175' (E:)public ledningsystem strategiska dokument_sjn "

"Industrigymnasiets riktlinjer och processer för elever och lärare
Kursutvärdering
"

5. Frågor kring samarbetet inom avdelningen

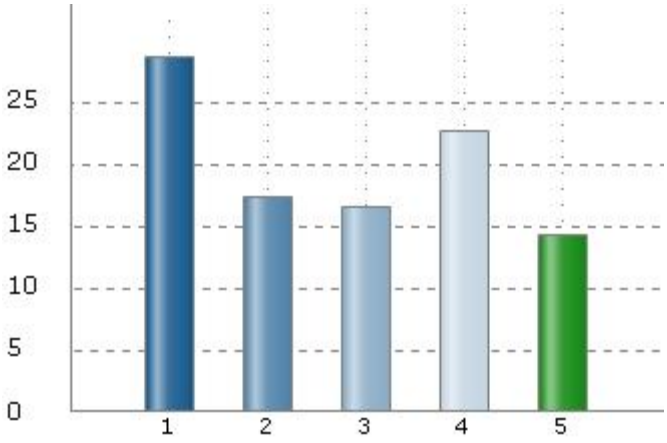
	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Jag kan hoppa in och ta över en kollegas arbetsuppgifter.	29 (22%)	52 (39%)	16 (12%)	13 (10%)	11 (8%)	10 (8%)	1 (1%)	*2,66*	132/157 (84%)
2 Jag sitter nära de kollegor jag arbetar mest med.	75 (57%)	28 (21%)	13 (10%)	4 (3%)	5 (4%)	7 (5%)	0 (0%)	*1,92*	132/157 (84%)
3 Jag brukar få vänta på nödvändig information för att slutföra mina arbetsuppgifter.	9 (7%)	31 (24%)	33 (25%)	12 (9%)	23 (18%)	20 (15%)	2 (2%)	*3,54*	130/157 (83%)
4 Jag arbetar mest på egen hand.	38 (29%)	49 (38%)	22 (17%)	13 (10%)	7 (5%)	1 (1%)	0 (0%)	*2,27*	130/157 (83%)



Besvarad av: 132 (84%) Ej besvarad av: 25 (16%)

Utav din arbetsvecka, hur många procent av din totala arbetstid tillbringar du i möten?

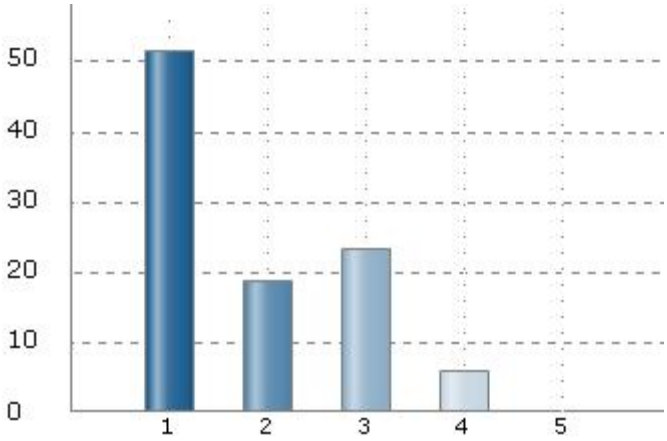
1	0-5 %	38 (29%)
2	5-10 %	23 (17%)
3	10-20 %	22 (17%)
4	20-30 %	30 (23%)
5	Mer än 30 %	19 (14%)



Besvarad av: 132 (84%) Ej besvarad av: 25 (16%)

Vad är ert huvudsakliga kommunikationsmedel inom avdelningen?

1	Face to face	68 (52%)
2	Möten	25 (19%)
3	E-mail	31 (23%)
4	Telefon	8 (6%)
5	Annat	0 (0%)



Besvarad av: 34 (22%) Ej besvarad av: 123 (78%)

Enligt din åsikt, vad är det bästa sättet att kommunicera på inom din avdelning?

"e-mail och face to face"

"Face to face samt möten"

"Face to face samt via e-mail"

"Det beror på vad det gäller men Face to face är alltd trevligast."

"face to face"

"Ansikte mot ansikte"

"Att hålla pulsmöten mer fokus på avvikelser."

"Face to face"

"Min åsikt är face to face i vissa sammanhang, möten i andra och e-mail/telefon vid andra tillfällen. Det ska finnas en anledning/syfte till respektive val. "

"Face to face 50 % Möten 30% email 20%"

"att prata till varandtra och inte om varandra ."

"Genom effektiva möten samt genom face to face."

"En kombination av face to face möten och e.mail"

"Man kunde ej välja 2 alternativ på frågan ovanför. Ville kryssa i möten och e-mail."

"vill även tillägga Face to face och e-mail"

"En blandning av strukturerad muntlig och skriftlig information."

"Face to face"

"Face to face"

"Face to face, plus att man behöver dokumentation som beskriver det som man ska/har prata/pratat om och att det är mer formelt korrekt, konkret är det viktigt att ha dokument som t.ex beskriver hur/vad vi jobbar med."

"Face to face"

"Face to Face"

"Dagliga praktiska arbetet: face to face.
Mera övergripande: möten. (Vilket egentligen är samma sak)."

"Möten och E-mail"

"face to face"

"Face to face"

"e-mail, projektwebhemsida "

"face to face"

"E-mail och face to face"

"Personkontakt
"

"face to face. Beror dock på vad som ska göras.
Om det bara är att stämma av ngt eller informera kort kan mail eller tel vara bättre"

"alla kommunikationsmedel bör användas"

"Face to face och genom möten"

"Kombination av visuella tavlor och face to face."

"Face to face"

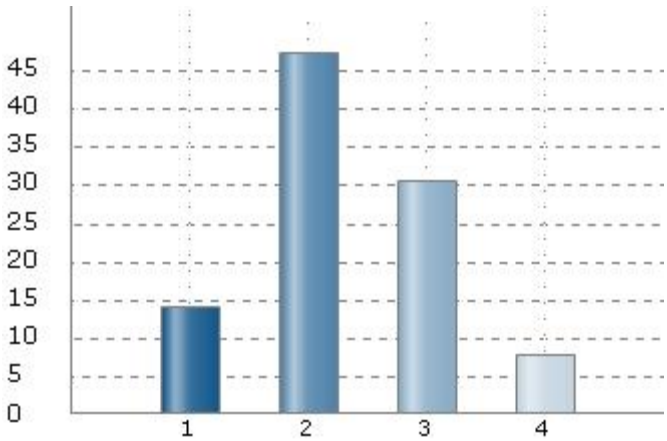
6. Personalrelaterade frågor

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Jag anser att vi är för få anställda för att på ett bra sätt klara av vår arbetsbörda.	9 (7%)	17 (13%)	28 (21%)	12 (9%)	22 (17%)	40 (30%)	4 (3%)	*4,1*	132/157 (84%)
2 Jag känner mig motiverad i mitt dagliga arbete.	61 (46%)	39 (30%)	12 (9%)	13 (10%)	4 (3%)	3 (2%)	0 (0%)	*2,01*	132/157 (84%)
3 Jag känner mig motiverad att lyfta fram avvikelser som finns inom avdelningen.	47 (36%)	39 (30%)	25 (19%)	9 (7%)	6 (5%)	4 (3%)	2 (2%)	*2,23*	132/157 (84%)
4 Jag känner mig motiverad att komma med förbättringsförslag inom avdelningen.	53 (40%)	42 (32%)	15 (11%)	5 (4%)	9 (7%)	7 (5%)	0 (0%)	*2,21*	131/157 (83%)
5 Jag skulle vilja gå på flera utbildningar per år än vad jag nu gör.	24 (18%)	29 (22%)	29 (22%)	12 (9%)	19 (14%)	16 (12%)	3 (2%)	*3,16*	132/157 (84%)
6 Jag anser att vi är för många anställda för den arbetsbördan vi har inom avdelningen.	3 (2%)	3 (2%)	9 (7%)	9 (7%)	21 (16%)	75 (57%)	12 (9%)	*5,22*	132/157 (84%)

Besvarad av: 127 (81%) Ej besvarad av: 30 (19%)

Hur många utbildningarsdagar går du på i snitt per år? (Med utbildning menar vi alla typer av utbildningar, t.ex. seminarer, föreläsningar, externutbildnignar, internutbildningar, etc.)

1	0-1	18 (14%)
2	2-5	60 (47%)
3	6-10	39 (31%)
4	Fler än 10 utbildningsdagar	10 (8%)



7. Frågor kring den löpande verksamheten

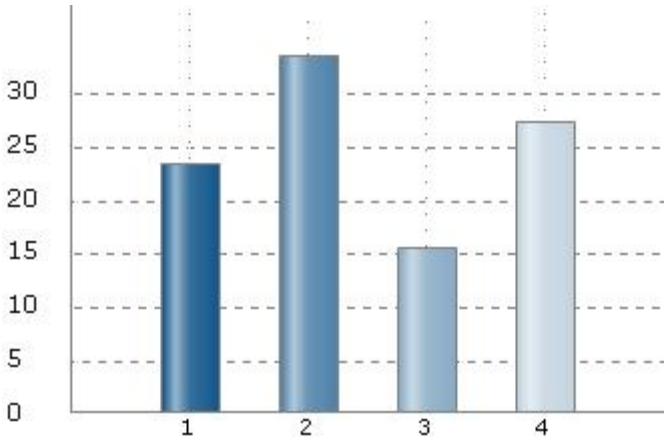
	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar

1 Inom vår avdelning jobbar vi aktivt med att försöka minska kostnader.	32 (25%)	46 (36%)	22 (17%)	11 (9%)	9 (7%)	3 (2%)	6 (5%)	*2,41*	129/157 (82%)
2 Jag anser att jag tillägnar mycket tid åt administrativt pappersarbete.	28 (22%)	48 (38%)	23 (18%)	10 (8%)	11 (9%)	7 (5%)	1 (1%)	*2,6*	128/157 (82%)
3 Jag anser att jag tillägnar mycket tid åt dubbelarbete.	3 (2%)	13 (10%)	30 (23%)	21 (16%)	24 (19%)	34 (27%)	3 (2%)	*4,22*	128/157 (82%)
4 Jag kontrollerar alltid att det jag lämnar ifrån mig är felfritt.	45 (35%)	57 (44%)	12 (9%)	6 (5%)	4 (3%)	4 (3%)	1 (1%)	*2,05*	129/157 (82%)
5 Jag hittar alltid den information jag behöver på HR Inline.	12 (9%)	35 (28%)	43 (34%)	11 (9%)	14 (11%)	5 (4%)	7 (6%)	*2,96*	127/157 (81%)
6 Jag tycker att det är lätt att ta del av information som finns på HR Inline.	25 (20%)	44 (35%)	32 (25%)	13 (10%)	3 (2%)	5 (4%)	4 (3%)	*2,51*	126/157 (80%)

Besvarad av: 128 (82%) Ej besvarad av: 29 (18%)

Hur många gånger per vecka använder du HR Inline?

1	0-2	30 (23%)
2	3-6	43 (34%)
3	7-10	20 (16%)
4	Mer än 10 gånger i veckan	35 (27%)



8. Frågor kring SPS

Besvarad av: 53 (34%) Ej besvarad av: 104 (66%)

Enligt din egen åsikt, vad innebär Scania Production System för dig?

"Ordning och reda, tydlighet, utnyttjande av resurser på ett bra sätt, "

"Är ett tydligt sätt att se på hur vi vill jobba och utveckla vårt arbete"

"Ordning och reda
Standariserat arbetsätt
Rätt från moig
Kvalitet"

"Att arbetet bedrivs effektivt. Att jag arbetar med avvikleser och ständiga förbättringar (utveckling)"

"SPS är ett levande verktyg som kan användas överallt. Det är ett sätt att tänka óch ett sätt att arbeta. Det är också ett bra

vtg för att komma närmare kunderna och se deras behov. Men kan se avvikelser och lyfta upp dem till ytan. men det bästa är ändå kunna göra förbättringar och prova nya arbetssätt tillsammans som en grupp. "

"Tydlighet och effektivitet"

"Sps för mig är.
-Jobba med avvikelser
-Rutiner
-Slöseri
-Agera i realtid
-Arbetsmiljö
-Rätt från mig
-Förbättringsgrupp
-Ekonomi"

"SPS är mitt prioriteringsverktyg för strukturering av arbetsuppgifter, med fokus på...
1)Standardiserat arbetssätt
2)Visuellt
3)Ständiga förbättringar
"

"Eftersom vi inte fullt ut har arbetat med detta så tror jag själv att vi har en stor förbättringspotential i att jobba enl SPS. Framförallt med att hitta normalläge, ordning och reda och givetvis allt det som finns bakom det mest konkreta i grunden, de tre kärnvärdena."

"Ordning och reda. Rätt organisation, resurser och arbetsuppgifter."

"Orning och reda !!
Sunt förnuft"

"Att kunna få påverka och bidraga till förbättringar i min arbetsgrupp,och att vi gör det tillsammans "

"SPS är ett ramverk, där principerna ger oss vägledning i det dagliga arbetet. Vi själva formar metoderna och har ett systematiskt arbetssätt för att ständigt utmana och förbättra metoderna så att vi förstår våra principer än mer. Learning by doing..."

"Kunden först men även respekt för individen.
Minska slöseri onödiga arbetsmoment. Rätt från mig. Ett standardiserat arbetssätt.Ständiga förbättringar"

"Delaktighet i processen"

"Ordning och reda. Strukturerade arbetsuppgifter."

"Ordning och reda och struktur."

"ett bra verktyg"

"Ordning och reda, bra och visuella rutiner, åtgärda avvikelser inom rimlig tid."

"Standardiserat arbetssätt, tydlighet"

"Ordning och reda på saker, på möten, på rutiner och på arbetssätt."

"Skapa en lärande organisation och utveckla människor som känner arbetsglädje i att tillsammans ständigt förbättra sina arbetsflöden med metoder och processer för att eliminera slöseri och höja kvaliten i leveranser internt och till Scanias kunder."

"Vårt arbetssätt på Scania."

"Dokumenterade arbetssätt (normalläge). Utifrån detta kan man sedan utveckla arbetssätt och verksamhetens struktur. SPS; utgår från att visualisera arbetssätten."

"Standard och rätt ifrån mej"

"Att det är en gemensam arbets sätt som alla följer och att vi alla jobbar för företagets utsatta riktlinjer."

"Bra system att först ta fram normalläge, för att sedan kunna hitta förbättringspunkter. SPS underlättar att alltid sträva framåt "Bättre än igår - men inte lika bra som imorgon""

"Våran religion på företaget och samtidigt våran överlevnadsstrategi.Det är ett bra verktyg för att hela tiden jobba smartare, genom att vi har övergripande gemensamma värderingar och priciper som gör att vi med samlad kraft jobbar med ständiga förbättringar. Och därmed lyckas med att förbättra våran effektivitet,produktivitet och kvalité."

"Att göra arbetsuppgifter synliga, inkl avvikelser, som leder till förbättringar och god kvalitet och tidsvinster."

"Ett strukturerat sätt att arbeta där man hela tiden jobbar med ständiga förbättringar"

"Att man ska jobba med ett normalläge och hela tiden förbättra det så att det blir ett nytt normalläga - ständiga förbättringar."

"Ständiga förbättringar. Ett system för att ständigt förbättra kvaliten, bli effektivare, jobba smartare osv. och fortsatt vara konkurenskraftiga i förhållande till konkurenterna."

"En ledstång, ett förhållningssätt, ett gemensamt sätt att diskutera arbetet runt"

"Likformigt arbetssätt med framtagande av Normallägen för de hudsakliga huvudprocesserna inom den funktion som jag i första hand ingår i."

"Att förstå och kunna omsätta Scanias Värderingar och principer i det dagliga arbetet"

"Att jag alltid vet vad som förväntas av mig."

"Det är bra på verkstäder men svårare på kontor."

"Enkelhet. Struktur i jobbet. Göra rätt säker på rätt sätt. "

"Ett kontrollerat sätt att effektivisera och förbättra arbetsplatsen och dess processer och möjligheter, för ett smartare arbetssätt och resultat."

"Struktur, ordning, rutiner, gemensamt arbetssätt.."

"bra med tydliga roller"

"Att på ett enkelt sätt visualisera ett tänkande på hur ett framgångsrikt företag med långsiktigt tänkande ska klara konkuransen i framtid och andra marknader."

"Att försöka hitta förbättringar i alla arbetssituationer."

"Superviktigt och effektfullt."

"arbeta strukturerat med ett normalläge, har dock svårt att se hur det skulle kunna fungera i just min tjänst då jag är ensam om mina arbetsuppgifter och områden."

"Systematiskt arbeta på ett bra sätt,ex rutiner, instruktioner, avvikelser, förbättringar."

"Standardiserade arbetssätt vad det än är för uppgifter. Hitta avvikelser utifrån de arbetssätt som är bestämda och förbättra dom därefter."

"Effektivitet, förenkling "

"Att jag blir medveten om vad varför min roll finns, vad jag ska göra och hur det ska utföras på bäst kända sätt."

"Enkla förnuftiga rutiner"

"Ständig utveckling av vårt arbetssätt ..... "

"Tydlighet. Ordning och reda"

"Att systematiskt förbättra produktivitet, kvalitet och arbetsvillkor med utgångspunkt i sunda värderingar och delaktighet."

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Jag ingår i en grupp där vi varje vecka träffas och diskuterar hur vi tillsammans kan förbättra vår verksamhet.	45 (35%)	16 (12%)	19 (15%)	6 (5%)	10 (8%)	29 (22%)	4 (3%)	*3,06*	129/157 (82%)
2 Jag tar del av informationen på vår förbättringstavla mer än en gång i veckan. (Svara endast på frågan om det finns en sådan tavla.)	21 (19%)	22 (20%)	17 (15%)	8 (7%)	7 (6%)	12 (11%)	23 (21%)	*2,93*	110/157 (70%)
3 Jag tror att SPS är tillämpbart på en administrativ avdelning, även om det från början bara var avsett för produktion.	72 (56%)	25 (19%)	7 (5%)	7 (5%)	1 (1%)	3 (2%)	14 (11%)	*1,69*	129/157 (82%)
4 Jag känner mig motiverad av mina chefer att jobba med SPS.	38 (30%)	23 (18%)	22 (17%)	9 (7%)	14 (11%)	9 (7%)	13 (10%)	*2,7*	128/157 (82%)
5 Jag tycker själv att det skulle vara kul att implementera SPS i vår verksamhet.	58 (45%)	26 (20%)	21 (16%)	2 (2%)	6 (5%)	2 (2%)	13 (10%)	*1,94*	128/157 (82%)
6 Inom vår avdelning har vi rutiner för hur förbättringsidéer ska lyftas fram.	38 (30%)	34 (27%)	21 (16%)	7 (5%)	9 (7%)	12 (9%)	7 (5%)	*2,6*	128/157 (82%)

Besvarad av: 52 (33%) Ej besvarad av: 105 (67%)

Namnge de utbildningar i SPS du har gått: (Om du inte har gått nån SPS-utbildning lämnar du blankt.)

"sps-games"

"SPS games"

"sps-game, internutb."

"Alla som finns på Industrigymnasiet"

"Rätt från mig"

"SPS games"

"har haft en genomgång vad sps är för något på industrigymnasiet."

*"SPS-Games
+ Mängder med föreläsningar
Var med i pilot grupp i produktion 1998"*

"SPS-games"

"bygga lego"

*"Har jobbat med SPS Skola med medarbetare.
Även som Revidör samt jobbat med dom alla 3 stegen som finns."*

"SPS-game"

"SPS-game."

"SPS spelet"

"SPS 1 (eller vad den heter)"

*"Principlay (fd Legospelet).
Legospelet
Pedal Car
Standardutbildning med JMAC.
MASSOR av interna seminarier runt SPS.
En hel del externa seminarier: Niklas Modigh (2 ggr), Jeff Liker, David Meyer.
1,5 år projektledare för P2000 (föregångare till SPS)."*

"P2000 handledare"

"Jobbat länge inom produktionen"

"Allmän genomgång en fm. "

"SPS-game"

"Grundutbildningen"

"SPS Game"

"SPS Game, Intern utb/genomgång genom SPS Office"

"En förkortat version av värderingsresa"

"Jag har själv organiserat mängder av aktiviteter med syfte att tillämpa, lära mig själv, mina kollegor och andra intressenter SPS och lean management. "

"SPS game"

"SPS-game"

"SPS game i samband med anställning."

"Värderingsresa."

"sps game trampbil "

"Pedal car"

"SPS-games"

"Lean Production,"

"sps-games
info ang sps certifiering för kontor"

"SPS game, Pedal Car, många föreläsningar"

"Allmän information om SPS en fm"

"SPS Game, SPS Pedal Car, Lean Administration"

"SPS game, Pedal Car"

"Grundkurs"

"SPS-Game"

"SPS-games
Pedalcar"

"Vilka menar vi?
Tänker du på SPSarbete 1 dagars har jag gått den"

"SPS grund 1 dag "

"SPS-produktion"

"SPS games"

"SPS game"

"SPS-grund halvdag"

"SPS-spel"

"SPS games "

"Pedalcar, SPS-game, seminarium på campus telge, praktik på chassie"

"SPS-games"

"Massor av historiska utb(P90, P2000) och nuvarande SPS-game -- jag är nämligen en av flera handledare för denna utb och utvecklar en del andra SPS-aktiviteter. Varje utbildning jag kört har lärt mig något nytt eller ny insikt."

Besvarad av: 57 (36%) Ej besvarad av: 100 (64%)

För att SPS skall kunna implementeras på H, vad tror du är viktigt att tänka på? Vad kommer vara nycklar till framgång?

"alla medarbetare ska förstå vikten av SPS."

"ordning och reda, "

"Jobba på de små förbättringsförslagen först och ta de låga frukterna, därefter kan de mer komplexa frågorna tas. Ingen fråga kanske kan få den slutliga och ultimata lösningen, huvudsaken är att frågan eller processen blir ngt bättre än dagens...sedan tar man ytterligare steg på steg."

"engagemang från alla, att inte ta det i för stora bitar."

"Att alla medarbetare inser hur viktiga de är inom arbetet med SPS. Alla ska med"

"Vi jobbar redan med SPS"

"Att alla skall vara delaktiga i varje grupp"

"Att alla får en förståelse för varför detta skulle underlätta vårt vardagliga arbete."

"Att anpassa efter verksamheten och hitta godbitar ur processen."

"Det viktiga för att implementera SPS på H krävs nog en hel A4 för att förklara. Jag tror att man måste börja med att ändra inställningen till SPS just nu ser de flesta att det är som ni sa tidigare ett vtg för produktion. Men jag vet att det finns många andra avdelningar som har lyckats runt om på Scania. Så jag tycker att studiebesök till andra avdelningar är mycket bra dvs "go and see". Sen måste alla chefer ha en bra utbildning om vad SPS är och hur det kan användas och implementeras. Mätbara nyckeltal är viktigt.

Samt alla avdelningar på H får tid till förbättring och jobba med avvikelser.

Balansering, standarlisering två mycket bra detaljer m.m
Vi måste också ha ett hus anpassat efter H. Så som de har gjort på infomate och STC.

Nycklar till framgång är bra ledarskap och att våga ta beslut som påverkar och utmanar våra produkter och tjänster från H.

Det måste få ta tid (rom byggdes inte på en dag) Se till att alla har gått en bra SPS utbildning och förstår sin roll i ansvarstagandet i SPS och fördelen för individen.

"

"motiverade medarbetare. Att vi gör det tillsammans"

"Att enas om vad SPS innebär för H. "

"Att motivera våra medarbetare till att jobba med SPS en framgångs verktyg som fungerar samt att dom får kännna ansvar för sitt jobb.
Kunna påverka sin arbetsplats,att ha SPS i sin roll ."

"1) En tydlig genomföringsplan.
2) Att vi förstår varför.
3) Att börja i små steg, ex utbildningen SPS-game.
4)Att intreserade medarbetare börjar med införingen av SPS och ännu viktigare att motståndare till SPS till en början inte

*deltar.
"*

"Vi står redan i startgroparna. Viktigt att cheferna är med och införstådda med att vi måste lägga tid för detta i början. Att försöka få alla att vara delaktiga."

"Bygg eget. Kopiera inte från andra verksamheter som t e x produktion."

"En oberoende "konsult" som driver på och följer upp. Vi klarar inte detta själva, ingen har kraften/tiden att lägga den tiden på detta själv. "

"Att få med alla, så alla drar åt samma håll och hjälper till. Så inte en eller ett par får slita och fixa allt."

*"Att vi är uthålliga och att vi arbetar kompromisslöst!
Vi måste höja blicken från "sopkvast" till processer, men det är alltid ett bra utgångsläge med 4S.
Vi måste försöka rannsaka oss själva med kunden i centrum, dvs ödmjukhet är A och O.
Vi behöver ett ledarskap som är tydligt men samtidigt lärande, dvs vi måste forma fler ledare, inte efterföljare.
Vi måste alla försöka lyfta blicken för att kunna påverka inte bara min arbetsplats/situation utan även kollegors.
Det allra viktigaste är dock att vi pratar mer i termen av standard, vilket är grunden i normalläget och en grund för ständiga förbättringar."*

"Att kontor inte är verkstad"

"Att cheferna tror på SPS"

*"Processsyn, inte avdelningsorienterat synsätt, eller kanske ännu hellre systemorienterat.
Att etablera normalläge kräver öppenhet mellan avdelningar.
Kundfokus, istället för internfokus.
Ta tid att etablera normalläge för att få helhetssyn, inte springa iväg på enskilda, lösrykta förbättringsförslag.
Normalläge inte bara för att GÖRA, utan också för att planera och följa upp.
Förändringar i små steg, inte via projekt som pågår i flera år.
Information, utbildning och övningar för att sätta tänkesättet kring SPS.
Gemensam syn inom H om vad SPS för H är.
"*

*"Att varje medarbetare får en bra och rolig grundutbildning och att man följer upp utbildningen med fortsättningsutbildningar.
Att olika avdelningar delar med sig av sina erfarenheter."*

"Att både chefer och personal ger det en chans."

"Att frågorna är relevanta och att förbättringar utförs. "

"Utb genom kompetent personal/SPS Office eller liknande - sedan anpassa till sin egen verksamhet, kärnvärden e t c, skapa en process/ej projekt"

"Att alla är med på detta från översta nivån (H) och neråt i organisationen."

"Chefernas engagemang. Gemensamt arbetssätt hos Lokala HR-funktioner och centrala HR-funktionen."

"Att alla jobbar med samma gemensamma SPS mall, att man inte hittar på egna varianter. "

*"Att alla får tillfälle att reflektera över och sätta sig in i tankemodellen, bearbeta och förstå principerna och våra värderingar.
Det här arbetet skall ledas av cheferna. Tillfälle skall också ges för att möta andra kollegor från andra funkltioner för att utbyta erfarenheter och lära av varandra om olika agreppssät och metoder på SPS.
Ovanstående skall varvas med tillämpning i jobbet."*

"Att det inte är något komplicerat utan bara ett gemensamt sätt att arbeta på (många avdelningar under H jobbar redan med SPS!) Tala inte om SPS utan istället om vad SPS är! Normalläge, Ständiga förbättringar, Lean flow, takt, visuellt, kunder först, respekt för individen och kvalitet.... Det är inget konstigt."

"Först belysa och dokumentera arbetsätt idag. Därefter sätta ihop förbättringsgrupper för att eventuellt förbättra arbetssätt."

"Samarbetet, att vi förtsätter att förbättra samarbetet mellan avdelningar."

"Att översätta det som är specifikt för produktionen till kontorsmiljö. Det måste gå att känna igen, att förstå för att få ett engagemang. Jag måste se vilken nytta jag har av det."

"Att alla förstår SPS och varför vi ska jobba med SPS"

"Att först verkligen bena ut vad vi sysslar med, och hur vi gör det, vilka som är involverade i vårt arbete och hur förutsättningarna ser ut. Det vi producerar/erbjuder är både tjänster och varor, men till sin kärna mest tjänster. "

"Att man är flexibel vid implementationen av SPS så att det blir till en hjälp för verksamheten där SPS behövs. SPS bör inte implementeras på de delar i verksamheten där det är svårt att etablera ett normalläge."

"Engagemang från chefer, alla medarbetare ska vara delaktiga, inga frågor är för stora, för små eller dumma, högt i tak, viktigt att alla förstår syftet, viktigt med uppföljning. Jag tror att det kan vara lämligt att bryta ner SPS per grupp istället för per avdelning eftersom vi jobbar med så olika saker."

"Tydlighet med vad vi ska uppnå. Företaget visar att det är viktigt att arbeta med SPS inom H. Eftersom att vi är en supportfunktion kan det vara viktigt att involver kunden om vad som är viktiga mätetal för H."

"Ett långsiktigt arbete med implementering, träning, förbättringar och uppföljning lett av någon duktig person"

"Först måste de olika verksamheterna inom H, få fram sina olika verksamhetsprocesser och försöka finna några normallägen vilket är en stor svårighet hos många funktioner inom H som helt är händelsestyrda Vissa normallägen kan kanske hittas på vissa funktioner . "

"Att chefer och anställda lär sig SPS, och ha tålamod med att det tar tid."

"Jobba efter standard. Hitta normalläge. Rätt kompetens på rätt jobb. Alla ska inte vara halvbra på mycket. "

"Att SPS arbetet går hand i hand med det dagliga "normala" arbetet. Att vi snabbt finner aktiviteter som har stor genomslagskraft i organisationens arbete."

"Öka kunskapen hur SPS används och varför.
Förklara ,ge exempel,vad de 4 huvudpriciperna innebär och anpassa de till respektive verksamhet.
Normaläge,med dess underprinsiper,få det förklarat vad det innebär ge ex.på hur de används och kan användas innom H.
"

"Diskutera principerna, som bör vara lika.
Ledarskapsprinciperna bör aktiveras mera.
Ett liknande förhållningssätt i ledarskap bör kunna tas fram lika som vi säger att vi jobbar med kvalitet, respekt för individen etc."Vi här på Scania vill ha chefer som har det här förhållningssättet ""

"Att vi får stöd från ex. HC (ngn. som verkligen kan) för drivandet av dessa frågor."

"Hitta tydliga normallägen för de moment som går att ha normallägen för"

"Delaktighet och motiverade chefer"

"fungerar på vissa processer eller tjänster, dock kan det vara mycket svårt med andra, viktigt att verkligen låta alla komma med på banan och hinna ta till sig samt att de känner att de har påbverkansmöjlighet."

"delaktighet och motivation inom grupperna.
Allas ansvar."

*"Att Nej sägarna inte får ta för mycket plats.
Vi har helt enklet för många som motarbetar förändring inom administrativt arbete för att det ska på ett brett sätt implemneteras förbättringsarbete på H.*

Nycklar är att få en förändrings benägenhet hos dom som är ogillar förändring.

Att ledningen för H poängterar att detta är viktigt och en del av våra arbetsuppgifter!

Det går bara inte att säga att nu förändrar vi och att ledningen sen backar när det blir lite motstånd. Förändringen måste ske genom hela organisationen och med tydlig information från ledningen och chefer på alla nivåer."

"Att vi levererar tjänster som innebär ett engagemang i människor och att ev. förändringar måse ta hänsyn till verksamhetens inriktning "

*"Att alla chefer förstår vad det innebär och verkligen vill avsätta tid och energi.
Att jag som medarbetare tar ansvar för mitt eget arbetssätt, genom att skapa ett normalläge och våga utmana det."*

"Eget sunt förnuft"

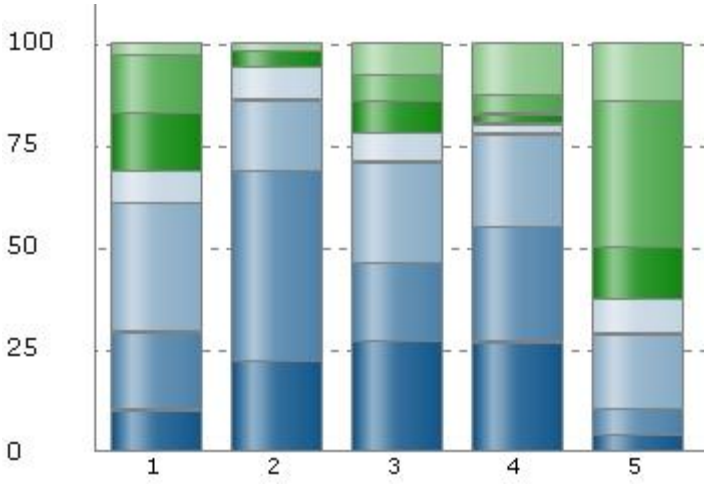
"Att inte stressa fram resultat. Det är viktigt att varje avdelning får tid att låta SPS tänket flyta in i verksamheten."

"Arbeta fram konkreta mål för avdelning, enhet och grupp genom delaktighet och som tydligt kommuniceras. Identifiera normalläge och standardiserat arbetssätt utifrån målen. Skapa en miljö där vi vågar älska avvikelser. Chefer som lyssnar "neråt" och ser att SPS handlar om att ALLA är med."

9. Frågor som berör hela H-avdelningen

(1. Med ett normalläge menas att man arbetar efter ett standardiserat arbetssätt, där man lätt kan notera ev. avvikelser. 2. Med mål menar vi sådana saker som styr avdelning mot ett speciellt håll, vilka riktlinjer som finns för att alla ska arbeta för att uppnå samma sak.)

	1. Instämmer helt	2	3	4	5	6. Instämmer inte alls	Kan ej ta ställning	Medel	Svar
1 Jag brukar få vänta på andra avdelningar för att kunna slutföra mitt eget arbete.	13 (10%)	24 (19%)	40 (31%)	10 (8%)	18 (14%)	18 (14%)	4 (3%)	*3,41*	127/157 (81%)
2 Samarbetet med andra avdelningar fungerar väl.	28 (22%)	59 (46%)	22 (17%)	10 (8%)	5 (4%)	0 (0%)	3 (2%)	*2,23*	127/157 (81%)
3 Det finns tydliga mål för H.	34 (27%)	24 (19%)	31 (25%)	9 (7%)	10 (8%)	8 (6%)	10 (8%)	*2,66*	126/157 (80%)
4 Jag tror att det är möjligt att skapa ett övergripande normalläge för hela H.	33 (27%)	35 (28%)	28 (23%)	3 (2%)	3 (2%)	6 (5%)	16 (13%)	*2,31*	124/157 (79%)
5 Jag anser att det finns alltför stora hinder för att införa SPS på H.	5 (4%)	8 (6%)	23 (18%)	11 (9%)	16 (13%)	45 (36%)	18 (14%)	*4,48*	126/157 (80%)



Besvarad av: 41 (26%) Ej besvarad av: 116 (74%)

Vad skulle hindra H för att kunna införa SPS? Ser du några utmaningar?

""spretig" verksamhet, många mjuka frågor"

"Gammalt sätt att tänka, Vi arbetar med människor kan ses som att det är en ursäkt att inte implementera vissa extremt viktiga byggstenar i SPS. Dålig kunskap om SPS på Chefs nivå."

"Motivation och tid för den mentala processen"

"Finns ej något hinder styrningen skall komma uppifrån genom ledningen."

"Förändringsbenägenhet saknas inom H. Att vi inte förstår varför. "

"En klar utmaning är den mångfacetterade verksamhet som H representerar.
Ett hinder kan vara brist på uthållighet i att hitta en egen "tillämpning" av SPS."

"Jag tror inte ledningen har den kompetens som krävs för att driva arbetet."

"Det är bara vi som är hindret.
Som Toyota brukar säga: "Vi är här varje dag för att lösa problem. Problem löses av människor, inte maskiner". Eftersom H består av enbart människor ser jag inga som helst hinder i detta."

"Att det inte finns någon direkt mätbar payoff"

"Cheferna tror inte på SPS. För mycket prestige i att jobba inom H, "nyckelpersoner""

"Mycket prestige mellan avdelningarna.
Ovana att jobba med processförbättringar.
Oklar mission och oklara principer."

"Det är stora skillnader mellan produktion och kontorsmiljö."

"Chefer och personal, ibland kan det vara svårt att lära gamla hundar sitta..."

"nej"

"Svag styrning av verksamheten, decentraliserad hr-funktion"

"Att man hittar på egna avvikande varianter eller att man inte vill eller jobbar aktivt med SPS "

"Att man har för bråttom och inte tillåter att praktik, reflektion och lärande i den här typen av delvis abstrakta processer tar tid.
"

"Högsta ledningen och cheferna måste tro på SPS och visa detta för sin avdelning. Det måste avsättas tid ´till det till en början. Vi måste börja jobba med SPS som något naturligt och en del av vårat arbete och inte kalla det att vi separat ska jobba med SPS."

"?. Alltid."

"Att många tror att det bara passar inom produktionen. Att Vi har så speciellt arbete att det inte fungerar hos oss. Utmaningen blir att övertyga om nyttan med SPS och att det går att införa på vilken del av företaget som helst. Det handlar om anpassning."

"Tiden, Att alla förstår SPS och att individen är motiverad att jobba med SPS.
"

"Förutsatt att det fungerar att 'knö in' alla de varierande verksamheterna i ett SPS-system så bör det inte finnas ngr hinder. Utmaningen är att se på sin verksamhet med andra sorts ögon. Även om inte alla avd kan tillämpa systemet fullt ut, så kan nog alla använda 'SPS-tänket' som ett redskap för att se på verksamheten. Tror att alla verksamheter kan tillämpa åtminstone vissa SPS-bitar."

"Att det är svårt at hitta ett normalläge för vissa delar inom H och att verksamheten ibland behöver anpassa sitt sätt att jobba så att man har olika angreppssätt för samma sak som ska utföras."

"Att det är en stor och spridd verksamhet med många olika yrkesroller. H's ledningsgrupp måste bli mer synlig (t ex vid jul- och sommarträffarna). Viktigt att börja underifrån och gå uppåt efter att vi fått tydliga mål. Kanske utbilda SPS-ambassadörer från de olika verksamheterna inom H som försöker sprida budskapet i organisationen. Men först måste ledningsgruppen verkligen "banka" in syftet med SPS. Informera om SPS på HR InLine."

"Finns inga hinder, det viktigaste är att det kommer från ledningen inom H, vi förstår syftet, tydligt budskap och att ledningen visar intresse med uppföljningar osv."

"Brist på förståelse och motivation.
Ja"

"Att man inte avsätter tid för förbättriingar."

"Att medarbetare inte förstår nyttan med SPS."

"Att det inte drivs/efterfrågas av ledningen."

"Attityder"

"-"

"Alltför spretig verksamhet"

"Bristande delaktighet och omotiverade chefer"

"lätt inom vissa delar och tjänster, svårare inom andra, alternativt att det funkar till viss del men inte fullt ut."

"Att fel personer får börja med detta! Man måste nog sköta det i etapper och redovisa vad det är som funkar i respektive grupp.

Jag tror att i slutändan kommer det ändå bli. "Det funkar kanske för förhandling men det funkar inte här för att bla bla bla bla""

"Variationen av uppgifter "

"Det som hindrar oss är att alla inte förstår vad det innebär att dokumentera sitt eget arbetssätt, och att det är förbättringstavlan och förbättringsmötet som ska lösa problemen."

" man måste ändra folks beteende och tänkande för att få med hela H"

"SPS-tänkandet finns redan mer eller mindre, det är bara att "Gneta på""

*"Det kan bli problem att hitta normalläget.
"*

"Det är en utmaning men ser inte att något skulle hindra införande av SPS på H. Kan bara leda till utveckling."

Besvarad av: 45 (29%) Ej besvarad av: 112 (71%)

Hur lång tid tror att det skulle ta att införa SPS till fullo inom hela H?

"Det tar den tid vi bestämmer oss för."

"10 år"

"Beror en på hur vi för ut informationen till alla medarbetare och hur aktivt vi jobbar med att sträva efter ständiga förbättringar.

Men 2-3 år, och det är det jag tycker att det ska ta också så att alla förtår helheten."

"Det har tagit ca 10 år för produktionen. "

*"Inom H kan jag tro att målet kan vara Steg 1
Genomfört 2009 samt börja med steg 2 hösten 2009."*

"De avdelnigar som vill, max 6 månader. "

"Det tar tid, kanske några år..."

">3 år."

"Tre år."

*"Du blir ALDRIG klar, men ett första normalläge tar c:a 2-3 år...
Återigen: Vi måste ha bestämt oss och sedan hålla den linjen med uthållighet och kompromisslöshet!!"*

"5-10år"

"???"

"2-3 år"

"Några år."

"ju mer tid man kan avsätta desto fortare kan man införa SPS, (1-2år)"

"vet ej, men ca 1-2 år"

"Helt beroende på om hela verksamheten är motiverad eller ej. Är vi motiverade så kan det nog genomföras på ett år."

"Beror på hur drivande chefer och alla är. Samt hur intresserade alla är att aktivt jobba med det. Men max 1 år om alla jobbar helt enligt samma mall,samt med gemensam uppföljning där det tydligt syns för alla avd var repektive avd befinner sig. Då kan alla triggas att inte vara den/dom som ligger sist. "

"Det blir aldrig färdigt utan är en resa utan slut eftrsom kundernas behov ständigt förändras likväl som omkringliggande samhälle."

"Det beror på hur ni definierar till fullo... Jag tror inte att det behöver ta så lång tid alls."

"Svårt att uttala om hela organisationen."

"Många år."

"vi blir aldrig klara "

"Ingen aning. En bra början kan vara att alla går SPS-utbildning/info, så alla har samma plattform innan man ö h t börjar prata om det. SPS-häftet är jättebra. Dela ut det till alla!"

"Jag gissar på 1 år där delar av H skulle kunna jobba enligt SPS."

"Jättesvårt att svara på, det måste väl finnas olika nivåer av SPS? Ett år om man jobbar stenhårt och fokuserat."

"Beroende på resurser, tror att bästa resultatet blir om inför det succesivt efter en plan."

"Vad är SPS till fullo?
Många år men vi behöver börja nu..."

"Minst ett år."

"synnerligen svår uppgift "

"12 månader"

"Många år. "

"1-2 år"

"5 år"

"Vi håller ju på och har kommit en bit på väg"

"1 år"

"vet ej"

"15 år"

"ett antal år troligtvis"

"Om man lägger prioritet på det så tror jag på 6 månader. Annars en livstid, en pappersdrake som inte går att uppnå."

"??"

"Om alla vill och ger sig den på att göra vad som krävs, kan vi se tydliga förbättringar inom 6mån, sedan tar det aldrig slut..."

"2-3 år,"

*"Den frågan går inte att svara på, då tror jag inte vi har förstått vad SPS handlar om.
"*

"Kan ej ta ställning"