

# LEAN MANAGEMENT IN THE SWEDISH PUBLIC SECTOR

- HOW IS VALUE AND CUSTOMER IN A PUBLIC SERVICE ORGANIZATION WITH MULTIPLE STAKEHOLDERS DEFINED, AND HOW DOES IT AFFECT IMPROVEMENT WORK?

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## Abstract

**Background** – Different scholars such as Radnor & Johnston (2013), explains that it is not until The Public Service Organizations are able to confidently define their customers and their customers' value, that they are able to link their internal efficiencies with their external effectiveness and thus create a sustainable and long-term success of their Lean initiative.

**Purpose** – In order to close the found theoretical gap, the purpose of this paper is to answer our chosen research question; *"How is value and customer in a Public Service Organization with multiple stakeholders defined, and how does it affect improvement work?"*

**Methodology** – This Master thesis is an exploratory investigation of the concept Lean Management within the Swedish Public Sector. This research is performed through a study of four cases in two Swedish Public Service Organizations, namely the Immigrations Office and the Social Insurance Agency, through interviews and complementing company data.

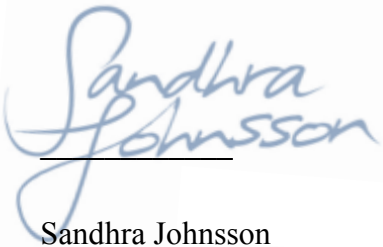
**Findings** – With subsequent analyzes and empirical data in mind we came to the following conclusions: Firstly, a broad perspective is common in Swedish Public Service Organizations, which is key to identify all stakeholders values. Secondly, an end-to-end perspective helps address and deal with conflicting values from different stakeholders. The end-to-end perspective is in our research more common when a full implementation of Lean is used. Finally, we found it more appropriate to begin with focusing on the customer and avoid *"low-hanging-fruits"* in the beginning, which is visualized in a model developed from the *"Lean Self-Sustaining Improvement Model"* by Radnor & Johnston (2013).

**Keywords** - Lean Management, Public Sector, Public Service Organizations, Multiple stakeholders, Value definition

**Tutor** – Pär Åhlström

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# 1. Introduction

The financial volatility of the latest decade has affected governments and whole nations, and has thus put a financial pressure on Public Service Organizations that they have not experienced before. The Public Service Organizations now need to do more with less (Radnor & Osborne, 2013).

This has created a need for change in the Public Sector, and Lean Management has become a popular management theory to apply because it promises better resource utility, higher quality, and cost decreases (Radnor & Osborne, 2013). The interest of Lean in the Public Sector has spread to researchers as well, and a lot of research articles have been published in this topic the last few years.

The interest derives from the complexity of the Public Service Organization, and that complexity mixed with a Lean approach is causing challenges that are unique for the Public Sector. We need to take into account the big difference between the Private and the Public Sector in order to pinpoint these unique challenges. These differences are affecting how well Lean is applicable in a Public Sector context, and are the reasons for the recent studies in the area of Lean within the Public Sector (Scorsone, 2008).

Boyne (2002) is arguing that there are four main areas where there is a big difference between the Private Sector and the Public Sector. These four areas are 1. Organizational environment, 2. Organizational goals, 3. Organizational structures, and 4. Managerial value. Scorsone (2008) is also mentioning these differences as something important to keep in mind when looking at Lean in the Public Sector context. While the goal for a private organization is clear and simple

(profits), the goals for a Public Service Organization are often many, and managers have to deal with laws that define these goals. These regulations also inhibit the possibility to change a process in any way you want. Additionally, while a Public Service Organization should treat every citizen equally, a private company might benefit from treating different customers differently (Scorsone, 2008).

The goals with Lean in the Public Sector have mainly been to maintain service productivity and service quality, and to improve resource utilization (Radnor & Osborne, 2013). The Public Sector is lagging behind private companies in both productivity and efficiency (Bhatia & Drew, 2007). Bhatia & Drew (2007) claim that a typical cost decrease of 15 to 30 percent when the Public Sector adapts a Lean approach is common, but this might be the case of the previous lack of economic pressure that has created possibilities for easy accessible efficiency gains (Lokkerbol, Molenaar, & Does, 2012). Even though there are easily accessed cost decreases, Lean is about more than just cost savings; it is about increasing customer value and quality at the same time as reducing costs (Bhatia & Drew, 2007).

This brings us to the interesting challenge in the Public Sector where the definition of who the customer is can be very tricky. An example of this is a prison, where one could argue whether the prisoner is the actual customer or is rather the non-user of the service? (Scorsone, 2008)

The five Lean Principles by Womack & Jones (1996) have been extensively used in much subsequent research. One of the reasons is because these five Lean Principles have made it possible to apply the Lean in other industries and contexts than standardized mass productions only. The case is the same for the

research conducted on Lean in the Public Sector; the five Lean Principles is recurring here as well. The first principle is to define value, and this is a missing piece of the puzzle to succeed with Lean in the Public Sector. Failing to define the true value will ultimately fail the Lean approach (Womack & Jones, 1996). Because of the focus on cost savings and policies instead of the end-user of the service, the Lean initiative in the Public Sector context will never be successful (Radnor & Osborne, 2013). Instead of the front-line staff answering to the needs of the end-users they are focusing on internal pressures. This is missing the true vision of Lean (Radnor & Osborne, 2013).

A Public Service Organization has often many different stakeholders that can be considered as customers to the Public Service Organization, and they might have different values and thus create many different goals for the Public Service Organization. These different goals might even sometimes be conflicting (Scorsone, 2008). How to deal with this complexity is where we find an interesting question that has not been answered by previous scholars. Dealing with this complexity is critical in order to create an external service delivery that is valuable for the multiple stakeholders and that is creating enduring long-term results (Radnor & Osborne, 2013).

Therefore, this thesis aims to research how Public Service Organizations have worked with the questions of who the customer is, or rather; who the customers are. Defining the customers is the first step. When the customers are defined, then how do they define value? If there are such contradictory values from different types of customers, then how do Public Service Organizations deal with this complexity and how does that affect their improvement work?

## 1.1 Purpose

If Lean within the Public Sector were to succeed over time it would be of huge value for the government and ultimately the society and taxpayers, but failing to implement Lean might be resulting in the contradictory. As previous research show, there is to today's date very little empirical evidence of any long-term success of Lean in the Public Sector. The main success-stories from Lean in the Public Sector come from internal efficiency gains by picking low-hanging fruits (Radnor & Osborne, 2013). To succeed over time these internal gains need to be linked with an increase in customer value (Radnor & Johnston, 2013). The definition of the customer, and customer value, is such a complex issue in the Public Sector context, but is the key question to focus on in order to succeed in the long-term (Radnor & Walley, 2008; Radnor, 2010; Radnor & Johnston, 2013; Radnor & Osborne, 2013). This is where a contribution to the research would help the most for Public Service Organizations.

Those Public Service Organizations who have already implemented Lean are struggling with the link to customer value, and need help with this link in order to maintain the early gains from the picking of "low-hanging-fruits". Those Public Service Organizations that, on the other hand, are thinking about implementing Lean but have not yet done so, would benefit from our research in order to define the customers and their value confidently from the beginning. The first step of the five Lean Principles (Womack & Jones, 1996) is to specify value. Future Lean initiatives by Public Service Organizations should not fumble in the dark with this definition, but instead learn from previous Lean implementations in the Public Sector.

Therefore, we aim to investigate how two Swedish Public Service Organizations with complex processes of many different stakeholders are defining their customers and how they define value. We will also investigate if the definitions are simplified or more complex, and if this affects how they focus on either internal efficiency gains, or increasing the customer value. The link to how this affects the improvement work is based on previous scholars and their conclusion that a Lean approach with a customer focus leads to long-term success, and a Lean approach with only a process focus will ultimately fail (Radnor & Johnston, 2013; Radnor & Osbourne, 2013).

## 1.2 Disposition

### *Chapter 2: Theoretical framework*

The theoretical framework will follow this introduction with a systematic review of the theories of Lean in the Public Sector.

### *Chapter 3: Methodology*

The third chapter is describing the methodology used to conduct the research. The chapter includes research approach, case selection, and method of data collection and analysis.

### *Chapter 4: Analytical findings*

In this chapter we present each case with an in-depth description of the case followed by an analysis. This is then followed by a cross-case analysis to identify similarities and differences between the different cases.

### *Chapter 5: Discussion*

The fifth chapter is where the theoretical framework is applied to the analytical findings from the within-case analyses and the cross-case analysis, and where a further discussion about the findings is conducted.

### *Chapter 6: Conclusion*

The final chapter of this thesis includes conclusions of the results, the presentation of theoretical and practical implications of this research, and possible further research on Lean in the Public Sector.

## 2. Theoretical Framework

*The theoretical framework aims to build a foundation on previous research in the field of Lean Management in the Public Sector with a focus on what is mentioned regarding the customer, value, and waste. From this theoretical framework we will build our research question based on the theoretical gap identified in the literature. A systematic literature review was conducted for the literature concerning Lean in the Public Sector in order to identify and specify the theoretical gap.*

*The theoretical framework begins with describing the definition of Lean. This is followed by findings from our systematic literature review. First we describe some common challenges unique for Lean in the Public Sector, followed by how this literature has handled the customer definition in this context and how it is defined in the literature. Then we look into the definition of value in the Public Sector, which will be followed by a section on waste that often is referred to as the antithesis of value. This chapter is ended in the theoretical gap, which leads us to our research question.*

### 2.1 The definition of Lean

This part is a shorter section on how we have chosen to define Lean, in order to make sure that we are investigating Public Service Organizations who have implemented Lean. By doing that we can make sure our conclusions are based on results from an actual Lean Approach and not something similar.

Womack & Jones (1996) published a new book called *"Lean Thinking: banish waste and create wealth in your corporation"*. The book

is based on their article from 1994 *"From Lean Production to Lean Enterprise"*, in which they argue for the need of a more holistic perspective where all activities should create value for the end product. In the book they present five Lean Principles.

**1. Specify value** – It is only the customer who can specify what is value, and it is through the viewpoint of the customer that customer value can be identified. Understanding customer value is an important starting point in Lean Thinking.

**2. Value Stream** – In order to be able to eliminate waste from processes it is important to identify all steps and processes involved in creating, and adding value to, the service or product for the customer.

**3. Create Flow** – Waste is removed by creating flow through all the value adding steps with as much efficiency and effectiveness as possible. This is done by rearrangements and changes in the processes.

**4. Create Pull** – If you identify and understand the demand from your customers you can create processes that meets the customers demand and thus creating a pull system. The result is to deliver the product or service in the way the customers need it, when they need it at the place they need it.

**5. Continuous improvement** – The world never stop changing and you need to continually improve just to keep up with the pace. The first four principles should be used in a continuous improvement work to identify and create more value for the customer. The process never ends but instead keeps looping from the beginning to continue to improve with the ultimate goal to reach perfection.

These five Lean Principles (Womack & Jones, 1996) have been extensively used in much



subsequent research. One of the reasons is because these five Lean Principles have made it possible to apply the Lean in other industries and contexts than standardized mass productions only. The case is the same for the research conducted on Lean in the Public Sector; the five Lean Principles is recurring here as well, and will be our guiding light in defining if a Public Service Organization has adapted to Lean by investigating if they consider these principles in their daily work.

## **2.2 Lean Management in the Public Sector**

The following parts are based on our systematic literature review. These theories are used as our “goggles” when looking at our analytical findings in our discussion later in the report. It is also the base for the identified theoretical gap that leads us to our research question. First is a description of how this systematic literature review was conducted.

### **2.2.1 The systematic literature review**

We started our systematic literature review (Tranfield, Denyer & Smart, 2003) with a search on “*Lean*” + “*Public Sector*” in titles, keywords, and abstract in the Scopus database on the 4th February 2015, and it rendered 86 hits. We read all abstracts of these 86 articles and excluded articles that did not cover the aspect of Lean in the Public Sector, but had been a hit in the Scopus-search anyway. We also eliminated articles that clearly were out of scope for our research based on the research motivation in our introduction-chapter, such as articles focused on human resource-questions, or that focuses on medical-organizations that have their own field in the research of Lean.

The result was 38 articles that we then read through one by one in order to identify if it covered anything relevant regarding our more narrow research topic within Lean in the Public Sector. In this step we eliminated those that did not cover a focus on customer or value in any way. We then had 17 articles to read carefully and summarize. During the research of this thesis some of these articles still did not turn out to be relevant and has thus been eliminated from the theoretical framework in the final version of this thesis. The relevant articles, nine articles to be precise, based on our research and findings are consolidated and incorporated into the following theoretical framework. They are also accompanied with other articles that are relevant for a Public Sector context but without the Lean focus. (View Appendix A for a full overview and information about the systematic literature review.)

### **2.2.2 The challenges with implementing Lean Management in the Public Sector**

The success of Lean Management in the Public Sector is a debatable question because even though early improvements were recognized in many Public Service Organizations, researchers argue that the many challenges with implementing Lean in the Public Sector context still inhibits the long term success of Lean (Radnor & Johnston, 2013). This section deals with these challenges except from human resource-challenges that often can be generic challenges for any type of change effort (Radnor & Osborne, 2013) and are off target for the further research conducted.

Radnor & Osborne (2013) argue that the implementation of Lean to today's date in Public Service Organizations has been defective. The effectiveness has been lost due

to focus on technical tools without knowledge of the principles and assumptions of Lean. It has also been lost because they have not considered the context the Lean management has been implemented in. The success-stories so far from the Public Sector has been created from "*catching low-hanging fruits*" with a lack of sustainability and resilience in the results from these low-hanging fruits. It has to be implemented with emphasis on the context and situated in what Radnor & Osborne (2013) describes as "*public service-dominant business logic*", otherwise it will only be used as a set of tools that will not render enduring benefits. These tools are mainly used to reduce waste, and some of these tools might not be appropriate in a Public Sector context, such as standardized work (Radnor, 2010).

Most of the Public Service Organizations are producing services of different kind that are ongoing (Gronroos, 2007), iterative processes where production and consumption is happening at the same time, and with "*a promise of what is to be delivered*". When they adopt Lean they are more focused on fitting their organization to the Lean framework for product development rather than embracing the service-dominant logic, which would be more applicable for their organization (Radnor & Osborne, 2013). Bateman, Hines, & Davidson (2014) is also advocating that the Lean adoption has been widespread in the Public Sector but that the new context in which Lean has been adopted has not influenced any changes in the construction of the Lean concept to fit more properly with the context of the Public Sector. Bateman et al. (2014) see too many tools in use without a clear focus in the implementation of Lean.

Another challenge with Lean Management in the Public Sector is the difficulties with administrative laws. It has created a risk avoidance approach according to Bateman et

al. (2014). While some advocate that administrative law is making Lean not applicable for the Public Sector, Scorsone (2008) found in his case study that administrative law was a constraint to be addressed by the Public Service Organization much like regulations for a private company, but not an obstacle impossible to overcome with a Lean approach.

Radnor & Osborne (2013) advocates that in order to make Lean successful in the Public Sector the theory of Lean has to be modified and fitted with the public services and its context. If these public services keep picking "*low-hanging-fruits*" and making quick fixes they will not be able to improve the real value for the customer despite their internal efficiency.

Bhatia & Drew (2007) is seeing a problem in top-down targets often being focused on single parts of processes, and they advocate the need to define and manage end-to-end processes and that these can be hard to identify for Public Managers. If only focusing on a single part of a bigger process it often leaves another part unattended and thus not improving the overall process. There might be a need for a change beyond a single part of the organization, or even beyond the organization as a whole, according to Bhatia & Drew (2007).

### **2.2.3 The definition of Customers in a Public Sector context**

According to Radnor & Osborne (2013) the challenge of identifying the customer and the customer value is "*particularly important*" for a successful implementation of Lean Management in a Public Sector context. The challenge of defining the customer in the Public Sector context is due to the many

different stakeholders (Boyne, 2002). A Public Sector manager needs to take into account these many different stakeholders and deal with their different goals (Bateman et al., 2014). According to Bateman et al. (2014) a Public Service Organization has to consider the value from many different customers at the same time and keep a broad perspective in order to include all “customers”.

Bhatia & Drew (2007) describes the difficulties for a Public Service Organization to take the customers perspective. First of all there is a lack of competition and the customers have often nowhere else to go when in need of a public service. They also argue that the Public Sector remains supplier led and not customer led. Furthermore there is a lack of frontline empowerment, which in turn makes the Public Service Organization fail to adapt to change in customer demands (Bhatia & Drew, 2007).

Bateman et al. (2014), in their study at the Royal Air Force in the UK, tried to link what they had seen with the five Lean Principles by Womack & Jones (1996). When looking at the first principle, to Specify Value, the discussion at the Royal Air Force had started with the question on who the customer is. The direct answer was “*The Headquarter*”, but then who was the customer to the headquarter? There was a financial customer to take into account, and the discussion moved on to define either the UK government or even the UK taxpayers as customers.

Radnor & Osborne (2013) advocate that the term customer might be more confusing than helping and that it can be challenged in the Public Sector context. The reason being that the “customer” might be everything from a direct end customer, through unwilling customers (such as the criminal in a justice system mentioned by Bhatia & Drew (2007)), to the citizens who indirectly benefit from a

service. Other possible customers might be multiple users of a service, or future users of the service (Radnor & Osborne, 2013). Radnor & Johnston (2013) gives an example of the difficulties in defining who the customer is when many of their interviewees answered that “*everyone*” was the customer. Radnor & Osborne (2013) instead argue that “*end-users*” is a more appropriate term because there might not be the regular market exchange with customer that a private company has, and that it because of this confuses with the term “customer”.

In the HMRC (Her Majesty Revenue & Customs), Radnor & Johnston (2013) found that many senior Managers defined both internal and external customers. While some front-line staff still had a hard time calling the end-user a customer, the Senior Managers also defined colleagues with different tasks and at other sites as customers as well. This was not an accepted term by the front-line staff though. In the same study at the HMCS (Her Majesty's Courts Service) the definition of customer was even wider, such as agencies they worked with, for example the police, and the Probation Service, but also defendants, and barristers to name a few. The definition of a customer was more or less “*anyone who used the court*” in one-way or another.

A common example of the complexity of defining the customer is different examples in the judicial system, such as the end-user of a policeman just receiving a speeding ticket, an inmate at a prison, or a criminal in the justice system. Should they be considered a customer? The take-away here is that depending on the Public Service Organization many of their customers are inevitably not happy or satisfied and it might have to be that way, and in some particular cases the end-user might not be appropriate to consider a customer, while the non-user might be (Bhatia & Drew, 2007;

Neumann, Mothersell, & Motwani, 2015; Scorsone, 2008).

To sum it up, a Public Service Organization has many stakeholders to attend to, and the term “customer” might be misleading. Defining the customer is the base of understanding and identifying the value, and since that is the first principle in Lean Thinking (Womack & Jones, 1996) there might be even more challenges for a Public Service Organization identifying these values.

#### **2.2.4 The definition of Value in a Public Sector context**

Due to the above-mentioned complexity in defining the customer in the Public Sector, the definition of customer value is infected with the same complexity. The following theories about the definition of value in the Public Sector were found in the systematic literature review.

To connect back with the answers that “everyone” was the customer, as Radnor & Johnston (2013) got when asking the question at HMRC and HMCS, they followed up the question by asking if the interviewees knew what requirements these customers had. The most common answer to that question was high quality and quick information, but without any further explanation of what that actually meant in terms of standards and requirements. The conclusion by Radnor & Johnston (2013) is that there was little understanding as of who their end-users actually were, and neither an understanding of what quality and timing of information was needed in order to create more satisfied end-users.

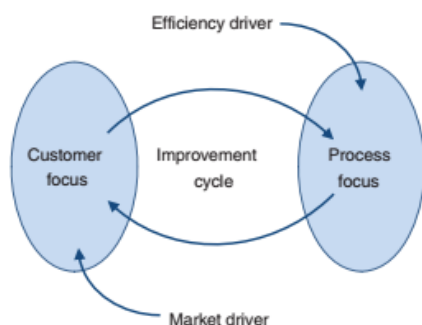
It is hard to specify value in a Public Service Organization compared to a commercial company whose value-adding activities affect

the bottom line. For a Public Service Organization there might be some processes that is inevitable but might not be value-adding according to an end-user and thus some waste is inevitable (Radnor & Osborne, 2013). There might also be laws and regulations creating inevitable waste (Scorsone, 2008).

Di Pietro, Mugion, & Renzi (2013) argues for the need of a customer feedback tool when applying Lean in public services, an argument based on the theory of G. Mazur who stated: “*Lean without customer satisfaction does not equal success*”. They cite Suárez-Barraza, Smith, & Dahlgaard-Park (2012) that “Quality of life” is a guiding principle of modern society, and that Public Service Organizations have to contribute to this quality of life beyond their institutional role of equity and transparency (Barraza, Smith, & Dahlgaard-Park, 2009; Fitzsimmons & Fitzsimmons, 1994). Their conclusion is that a feedback tool is important in order to understand strengths, weaknesses, and identifying areas that needs improvement, and then be able to compare the data over time and see the effectiveness on the Lean implementation and improvement. This is extra important when there are “forced customers”. Citizen-centered government's track their citizen satisfaction to be able to increase their quality of life (Di Pietro et al., 2013). Bateman et al. (2014) found that some did not have a clear definition on how to measure value, hence having to take a best guess on what would be important in their work. Without knowing what the value is, it is hard to be able to measure it, as Bateman et al. (2014) noticed.

Radnor & Johnston (2013) identified that the only success found was on internal efficiencies through a process focus. The Public Service Organizations had realized that they had to link this with customer value through their external service delivery – but they had not been able to

do this. The answer why this was the case lies within the structure of a Public Service Organization due to their key issues such as equity and transparency in a political context. This early success came from previous poor processes and in order to not stagnate after the initial implementation, they needed to be able to find this link between these internal efficiencies and increased customer value despite this difficult context (Radnor & Walley, 2008; Radnor & Osborne, 2013). Radnor & Johnston (2013) argue for a cyclical model that they call a “*Lean Self-Sustaining Improvement Cycle*” (View Figure 1). This cycle visualizes the need for both a process focus and a customer focus. The process focus is creating internal efficiencies (doing things quick and efficient), while the customer focus is creating effectiveness (doing the right things). Only having a process focus, as the Public Sector has done so far according to Radnor & Johnston (2013), creates a highly efficient organization that might do the wrong things. On the other hand, by only having a customer focus, there might be inefficiencies or waste built in to the process. Radnor & Johnston (2013) say that it is okay to start with the internal efficiencies as the Public Service Organizations have done, but they have to follow that up with a customer focus as well, in order to get this improvement-cycle going and succeed with the Lean initiative in the long run.



**Figure 1 - "Lean Self-Sustaining Improvement Cycle"**

Seddon & Brand (2008) defines two types of demand – the value demand also called

“*mission-driven demand*”, and failure demand, which refers to as “*failure to do something at all, or do something right, for the customer*”. This is important to understand for a Public Service Organization since there might be as much as 80 percent failure demand at local government departments in the UK according to Seddon & Brand (2008). This is not leaving much room for value driven demand, and according to Radnor & Osborne (2013) they found that instead of adapting the organization to demand, they moved around demand to fit their organization only to create even more failure demand. That is a failure of Lean (Radnor & Bucci, 2007; Radnor & Bucci, 2010).

Scorsone (2008) asks what the value equation is in a Public Sector context, and argues that multiple stakeholders make the value equation quite complicated because it is not only the end-user of the service that has to be considered. On the other hand, Radnor & Osborne (2013) have one proposition (Proposition #1) in their research suggesting that it is the end-user value that is needed to be focused on.

## 2.2.5 Waste in the Public Sector

The Lean implementation in the Public Sector has focused a lot on waste-reduction through different processes and tools (Radnor & Osborne, 2013). It is the most consistently thing focused on in the Public Sector when focusing on Lean (Radnor & Walley, 2008). The waste in itself is not the main focus in this thesis but how waste has been defined in the Public Sector might give us guidance on how value implicitly has been defined since it should be the antithesis of waste.

The reasons for the focus on defining and eliminating waste are many. As mentioned earlier, one reason is that there are “*low-hanging-fruits*” to pick that are easily identified as waste (Radnor & Osborne, 2013). Another reason is that managers focus on eliminating waste to gain cost savings, but it also frees up capacity (Radnor & Walley, 2008).

Radnor & Walley (2008) identified two types of implementation of the Lean approach. One was a full implementation and one was through RIE’s (Rapid Improvement Events). The RIE-approach showed to focus more on waste and short-term wins, with the risk of having trouble to sustain these initial improvements. The full implementation instead had a strategy formulation and a long-term Lean approach implemented, even in the vision of the Public Service Organization.

A common strategy is identified by Radnor (2010) when they looked at the HMRC where they specified the waste through process mapping and diagnostics, but they lost the focus on the customer's needs due to pressures to achieve targets. Radnor & Walley (2008) also identified process mapping, but in a simple and more flexible way than conventionally adopted by manufacturing companies. Waste was defined as unnecessary non-value adding activities such as double work, checking others work, and working with lousy IT-systems, i.e. waste based on internal inefficiencies (Radnor & Walley, 2008).

After the implementation of Lean at HMRC there was a clearer understanding of what was waste (Radnor, 2010). Radnor (2010) says that there was a focus on the process and reduction of waste instead of focusing on understanding what the value was. The focus on increasing the internal efficiency by Public Service Organizations instead of value for the end-user is a big issue according to Radnor & Johnston

(2013). Womack & Jones (1996) argues that failure to identify the value before implementing Lean might lead to the wrong product or service in a highly efficient way. Radnor (2010) on the other hand, suggests that the need of focusing on processes and flow before the value might be due to the Public Sector context.

## 2.3 Theoretical gap

The definition of customers and their value is key in the improvement work, and the long-term success of Lean, in the Public Service Organizations. Having walked you through the Theoretical Framework, there should be no doubt that there is a challenge in how to define the customer, and the research itself increases this complexity rather than trying to solve it. While Radnor & Osborne (2013) suggest to use the term end-users instead of customers and focus on them, Scorsone (2008) and Bateman et al. (2014) on the other hand argues that more stakeholders than the end-user only needs to be considered and gives an example of the customer as a non-user.

When looking into the research on Lean in the Public Sector there are no answers to be found on how to define the value, but only that a focus on it is important for a long-term success. When also taking the complexity of conflicting values from different stakeholders into account it is even less previous research to consider.

But why is this important and valuable to understand for Public Service Organizations? As Radnor & Johnston (2013) claimed: without defining the customer and what they value, no Lean initiative will be effective according to Lean advocates. If we look at their “*Lean Self-Sustaining Improvement Cycle*” (Figure 1, p.

13), it is according to their research the path to create long-term success with Lean and thus an important model for a successful improvement work (Radnor & Johnston, 2013). The big challenge to today's date with Lean in the Public Sector is to sustain the initial gains by focusing on the customer and to link these internal efficiency gains with customer value. Some cost savings have been made through the picking of “*low-hanging-fruits*” but the customer focus is still to be improved, and the customer focus is hard to adapt to when you have a hard time defining who the customers are. The “*market driver*” in this model (Figure 1, p. 13) is not defined by Radnor & Johnston (2013), there is only a conclusion that there does not appear to be a great understanding of the customer, their needs, or what they really value. The market driver needs to be understood by the Public Service Organizations in order to succeed with their further improvement work. The market driver in the model should, based on marketing theories, then be the demand from these customers, and this demand is based on customer value. The key here is to first identify who the customers are, and then understand the value of these customers. Finally they have to deal with the complexity of different values, sometimes contradictory, from different types of customers.

The theoretical gap in the literature can be described through the “*Lean Self-Sustaining Improvement Cycle*” (Figure 1, p. 13) by Radnor & Johnston (2013). The theoretical gap is how to define the “*market driver*” in a Public Sector context and how to get a customer focus. The “*market driver*” is what the customer demand, based on customer value, but due to the complexity of identifying whom the customers are, the model becomes good theoretically, but hard to understand and apply practically for a Public Service Organization.

The reason is that their complexity in the customer and value definition still exist. Defining the market drivers and thus being able to have a successful customer focus should make sure that the Public Service Organization not only do things in an efficient way but also in an effective way. This would result in doing more with less, which is the overall goal, and a success in the improvement work of a Public Service Organization.

## 2.4 Research Question

The theoretical gap of how to define the market driver and how to gain a customer focus is based on the problem of defining the customer, or customers, and defining the value of these customers. If there are many types of customers defined, there is also a gap in how to deal with their different values that sometimes can be conflicting (Scorsone, 2008). Depending on how the customer and value is defined, and if this complexity is dealt with or not, there might be differences in how well the market driver is fully understood, and how well the customer focus is found.

This leads us to our main research question that will address and answer to this theoretical gap:

***“How is value and customer in a Public Service Organization with multiple stakeholders defined, and how does it affect improvement work?”***

## 3. Methodology

*This chapter will outline the research methodology of the thesis. It will begin by an examination of the research approach, followed by a declaration of the case selection. Thereafter data selection and analysis will be presented, and ended in a part regarding quality aspects.*

### 3.1 Research approach

An inductive study is applied while investigating the research question: *“How is value and customer in a Public Service Organization with multiple stakeholders defined, and how does it affect improvement work?”*. This research question is significant since different scholars declare the existing complexity within the subject. Radnor & Johnston (2013) explains that it is not until The Public Service Organizations are able to confidently define their customers and their customers value, that they are able to link their internal efficiencies with their external effectiveness and thus create a sustainable and long-term success of their Lean initiative. To contribute to this field of studies a theory-building approach compared to a theory-testing research is more suitable to address the research question (K. M. Eisenhardt & Graebner, 2007).

This exploratory research is made through case studies, which according to Barratt, Choi, & Li (2011) is a useful approach in closing such a gap in theory. According to McCutcheon & Meredith (1993), K. M. Eisenhardt (1989), Voss, Tsikriktsis, & Frohlich (2002) and Barratt et al. (2011, p. 330), existing theories are thoroughly reviewed in order to form the initial design of the research. Please view Appendix A for a more detailed description of literature methodology.

### 3.2 Case selection

A multiple-case study is applied, which according to Yin (1994) will provide the research with a stronger base for theory building. It also provides a more robust theory, since the research comes from a wider empirical foundation. Other benefits of using multiple-case study are that it creates a better determination of accurate definitions (K. M. Eisenhardt & Graebner, 2007). Four to ten cases are suggested to be used in order to improve quality of the research (K. M. Eisenhardt, 1989) and in these thesis four cases will be investigated.

In the process of selecting cases four criteria were used in order to find suitable organizations.

**First** of all, the chosen case had to be within a Public Service Organization in Sweden.

**Secondly** the chosen organizations or processes within the organizations had to work with Lean Management in order for us to be able to investigate our research question. If they worked with Lean Management or not, was defined based on if they worked with the five Lean principles by Womack & Jones (1996) described in section 2.1 (p. 5).

**Thirdly**, the timeframe of how long the organization actually had been working with Lean Management was a determination, where longer time was preferable.

**Finally**, a major requirement in managing this research was to make sure to gain sufficient access to the organization as well as people in order to conduct all data needed.

With these four stated criteria the process started by pre-investing the area of organizations within the Public Sector that currently is working with Lean Management.



Only by doing that the number of considered organizations was limited. By furthermore considering the other three requirements, The Immigrations Office and The Social Insurance Agency where the two Public Service Organizations chosen to investigate. Two processes within each Public Service Organization were then chosen in order to have a total of four cases to investigate further.

### 3.2.1 Research context

#### *The Swedish Immigrations Office*

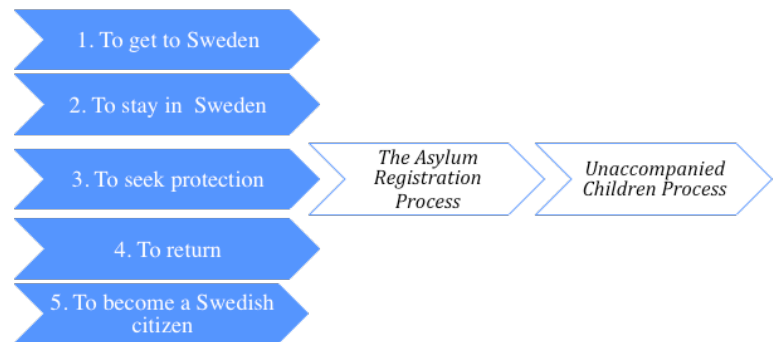
The Immigrations Office is the Public Service Organization in Sweden that has authority to examine applications from people who want to visit, live, or seek asylum in Sweden, and/or who wishes to become a Swedish citizen.

The Immigrations Office was the first Public Service Organization in Sweden to implement Lean Management strategies. In 2009, the government gave the mission to shorten the asylum process that at this time was 264 days on average.

McKinsey was hired by the Immigrations Office to accomplish this task, and they implemented the strategy Lean Management within the asylum process. In one and a half year the asylum process was shortened from 264 days down to 90 days on average, and the Immigrations Office got really interested in what Lean Management actually could accomplish if implemented within the whole organization. Today, six years later, the Management strategy is implemented throughout the whole organization and roles such as “Lean Manger” exist. Another structural change at The Immigrations Office is the five different processes that today are defined in order to improve work; (1) To get to Sweden, (2) To stay in Sweden, (3) To seek

protection, (4) To return, and (5) To become a Swedish citizen.

The two chosen cases for this thesis are sub-processes within the third process; To seek protection, namely the Asylum Registration Process and the Unaccompanied Children Process.



**Figure 2 - Processes at the Immigrations Office**

#### *The Social Insurance Agency*

The Social Insurance Agency is responsible for a part of the Social Security System in Sweden and investigates as well as decides in more than 40 different insurance payments.

In 2012 the Social Insurance Agency was next up to implement the popular management strategy Lean Management. The CEO from the Swedish Immigrations Office was hired to manage the implementation at the Social Insurance Agency as well, because of the early success of Lean at the Immigrations Office. This implementation was highly prioritized from the very first start and a top-down perspective was used through the whole organization. The Social Insurance Agency was already working with four defined processes and each of them had sub-process. The four processes are 1. Parent, 2. Jobseekers, 3. Sick, and 4. Disabled.

The two chosen processes to investigated are within the third process; Sick, and the fourth

process; Disabled. Within the Sick-process a sub-process was chosen to form our case, which is internally called “*Easier Sick-leave*”. Within the Disabled-process the sub-process to form our case is called “*Easier Living*”.

All four cases will be described more thoroughly in section 3.2.3.1.

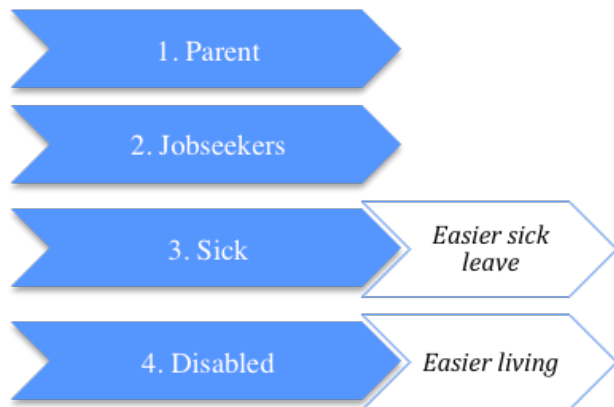


Figure 3 - Processes at the Social Insurance Agency

### 3.2.2 Sample selection

According to Yin (1994) and K. M. Eisenhardt (1989) sample selection within case research should be done according to specific criteria compared to a random selection from a population as stated by Voss et al. (2002).

The sampling approach with polar types were used and theories from K. M. Eisenhardt & Graebner (2007) state; “*this sampling leads to very clear pattern recognition of the central constructs, relationships, and logic of the focal phenomenon*”. The polarization was based on the complexity of the process. One more complex, and one less complex process was defined in each Public Service Organization. The complexity was based on the number of different external actors connected with each process. In close collaboration with the Lean Manager in respectively organization, the process of case selection was managed to meet these criteria.

#### 3.2.3.1 Cases

All four cases were selected in accordance to match criteria mentioned above as well as of being polar type cases.

##### ***Case 1: The Swedish Immigrations Office | The Asylum Registration Process:***

The Asylum Registration Process is a sub-process within the total Asylum Process. The timeframe of the process aims to only be one day and the maximum length is set to three days. Relatively, this is a very simple process that mostly deals with internal actors since it manages registration of asylum applicants. To simplify the process, an asylum applicant enters the reception and takes a queue patch, gets help from an administrator to do a registration and becomes photographed as well as leaves fingerprints. In the next step the asylum applicants in companion with an interpreter will have an inquiry call with a representative from the Immigrations Office in order to finalize the application. Lastly the asylum applicant receives a summons to the asylum application reception, which is the last step within the Asylum Registration Process.

##### ***Case 2: Public Service Organization | Unaccompanied Children Process:***

The Unaccompanied Children Process is also a sub-process within the asylum process and concerns only children that comes to Sweden without their parents. This process is relatively complex and deals with many other actors that are in direct connection.

### ***Case 3: The Social Insurance Agency | Easier Living:***

The process of Easier Living deals with disability allowance and determines if the insured person can get money due to a disability or illness that makes the person in need of assistance in daily life or have additional costs. The process starts with the insured person that registers their case at the Social Insurance Agency and encloses documentation such as medical certifications.

To simplify the process, a child will be registered in the same way as an adult within the asylum registration process, but other external actors will be involved such as social services to assign the child custodian (step 4).

The Social Insurance Agency then provides the person with an assistant to further help with coordination of other potential cases he or she already might have at the Social Insurance Agency. In the next step a decision-maker at the Social Insurance Agency will investigate this case and thereafter the insured person receives a decision by an administrator.

### ***Case 4: The Social Insurance Agency | Easier Sick-leave:***

The process of *Easier Sick-leave* is a process that handles compensation due to sick leave. The process starts with the insured person that register their case at the The Social Insurance Agency with enclosed medical certifications and other required documents needed. I the next step this case will be investigated by a decision-maker and lastly an administrator will respond the applicant with a final decision.

### **3.2.3 Time frame**

Retrospective and longitudinal case studies are the two different alternatives in time frames

presented by Voss et al. (2002). Due to the limited time frame of this thesis a longitudinal study was not possible to be conducted and a retrospective study through interviews and external sources were considered to be feasible.

## **3.3 Data collection and analysis**

*This section will declare for the thesis method when it comes to collection of data, followed by data processing, data analysis as well as different aspects of quality.*

### **3.3.1 Data collection**

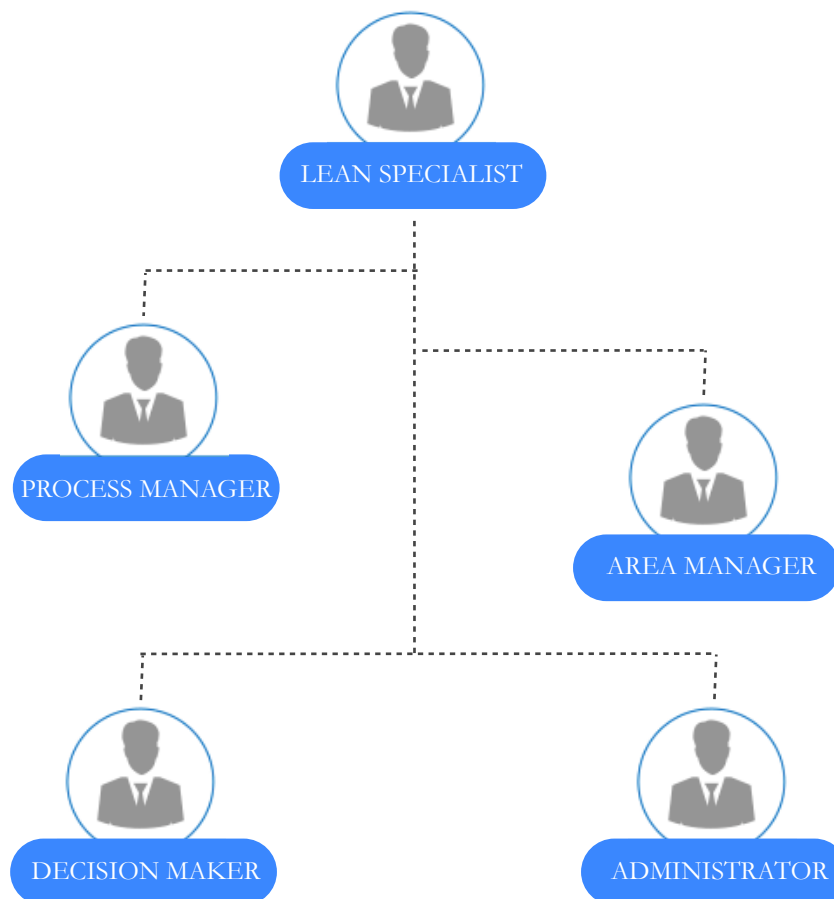
Scholars state that collection of data from different sources increases reliability (Boyer & McDermott, 1999; Leonard-Barton, 1990). Both propositions and constructs will be strengthened by the use of different types of data (Barratt et al., 2011; Benbasat, Goldstein, & Mead, 1987; K. M. Eisenhardt, 1989; Voss et al., 2002). Used data is mainly derived from two types of sources, which are interviews with employees, and documentation from each organization.

#### **3.3.1.1 Interviews**

To limit bias while using interviewed data, a key approach is to retrieve information from numerous as well as highly knowledge informants to gain a diverse perspective of the focal phenomena (Eisenhardt, 2008). The data is therefore retrieve from employees of different hierarchical levels within each case. As recommended by Voss et al. (2002) each interviewee received an explanation of the

topic in advance in order to prepare for the meeting. All interviews were conducted by a semi-structured protocol in order to create flexibility, and to allow and reach unexpected findings.

As recommended by K. M. Eisenhardt (1989) each interview was conducted by a two persons team, which consisted of both of the authors of the thesis. One was leading as well as asking questions, whereas the other person was interpreting by recording notes as well as observations. Furthermore, interview strategies that were used was from Yin (1994, p. 56) that stressed the importance of interview skills such as: *“to ask good questions, to be a good listener, to be adaptive and flexible, to have a firm grasp of the issues being studied, and to be unbiased by preconceived notions”*. Each interviewed person was assured full anonymity to avoid biases from interviewees avoiding to answer in a more or less favorable way.



**Figure 4 - Different hierarchical levels interviewed**

First, an interview with the Lean Manager was conducted at both organizations. Furthermore, four people on different hierarchical levels, in each of the four cases, were interviewed, which in total resulted in 18 interviews. Please view Appendix B for a detailed list of interviewed people.

### **3.3.1.2 Company data**

Each interviewed person assisted with internal data in terms of reports and presentations, which is named as company data. Both the Public Service Organization as well as the Social Insurance Agency provided the research with full access to all information needed.

These documents are confidential and are therefore not included in appendix. However this information have provided us with valuable insights in order to map up and visualize all internal processes.

### **3.3.2 Data documentation**

Each interview was documented in the same way and all data was stored digitally. They were recorded by a voice recorder of two mobile phones as well as by computer notes from each interviewer and transcribed afterwards as suggested by Voss et al. (2002).

### **3.3.3 Data analysis**

The purpose of the analysis was to reach knowledge in order to answer the research question; how is value and customer in a Public Service Organization with multiple stakeholders defined, and how does it affect improvement work? We structured this part in the analysis of external data followed by the analysis of the empirical data from our case research. The four chosen cases were

according to theories from K. M. Eisenhardt (1989) analyzed in two steps, which were within-case analysis as well as a cross-case analysis.

#### **3.3.3.1 Within-case analysis**

The goal of within-case analysis is to become familiar of each case as well as allow unique patterns to emerge before generalizing across cases (K. M. Eisenhardt, 1989). To facilitate the identification of patterns Voss et al. (2002) recommend organizing the data visually.

In the process of analyzing data, Voss et al.'s (2002) recommendation regarding data visualization was used. All material of case results was printed and posted on a whiteboard in order to create transparency as well as a great overview. This enabled identification of trends as well as patterns of each case.

#### **3.3.3.2 Cross-case analysis**

According to Voss et al. (2002) cross-case analysis is a key step in case research, it is also fundamental in order to reach generalizable conclusions. Miles & Huberman (1994) describes that cross-case analysis is a feasible tool of answering whether results are valuable beyond just a specific case. Generalizability is a well-discussed subject among scholars (Bluhm, Harman, Lee, & Mitchell, 2011; Meredith, 1998; Yin, 1994). Meredith (1998) states that scholars should avoid generalizing findings right away and instead focusing on developing theory that further is possible to apply into other situations.

By using cross-case analysis K. M. Eisenhardt (1989) mean that the risk of reaching premature or incorrect results mitigates,

compared to single case analyses only. Since this research is based upon four cases, as K. M. Eisenhardt's (1989) recommend having four to ten cases, it was fundamental to use a cross-case analysis approach in order to connect findings of all the cases to each other as well as to increase external validity and generalizability.

The process of cross-case analysis proceeded in the same visual way as for the within-case analysis. In this step, findings and different patterns from each case could be grouped into similarities as well as differences between the four cases. All relevant findings were studied in order to answer the research question on how value and customer is defined in a Public Service Organization using a Lean approach, as well as how the complexity of multiple stakeholders is managed, and how it affects improvement work.

### **3.3.4 Quality aspects**

In order to measure quality aspects of this thesis, different aspects according to Voss et al. (2002) and Yin (1994) is being considered. These quality aspects are divided into internal and external validity, as well as reliability, which will be described below.

Internal validity refers to what degree this thesis measures what actually is intended to be

measured, which according to Yin (1994) is the extent of causal relationship that occur. Yin (1994) furthermore describes that this can be difficult to establish and by combining company data with our interviews we sought to improve the internal validity.

External validity explains if this thesis research results can be generalized beyond this specific case study (Yin, 1994). In order to increase the generalizability this study is based on a several case study analysis as well as a cross-case analysis.

Reliability refers to what degree this study can be repeated with the same results (Yin, 1994). By carefully choosing our cases by a requirement list of which characteristics our cases should satisfy, we ensured valid relationship in reaching our results. Furthermore, by using advises from Yin (1994) in using a protocol and storing all data electronically we sought to improve our reliability.

To increase internal and external validity as well as reliability we could have done even more interviews as well as performed a survey in order to triangulate the data Voss et al. (2002). But due to the time constraints of this thesis a retrospective study is performed and we are confident that this thesis deliver research results and conclusion with high quality.

## 4. Analysis

*In this chapter an empirical background of each case will be outlined and followed by related analysis of the same case. The empirical background, of each case, will begin with a step-by-step declaration of the process based on company data. Finally this will be followed by an analysis of each case, which according to the interview structure will be outlined by; firstly, how they defined the customer and secondly, how they defined and worked with value as well as thirdly, how they have identified and worked with waste.*

### 4.1 Case One | Immigrations Office | Asylum Registration Process

#### 4.1.1 Empirical Background

The Asylum Registration Process is a step-process within the total Asylum Process. The timeframe of the process aims to only be one day and the maximum length is set to three days. Relatively this is a very simple process that mostly deals with internal actors since it manages registration of Asylum Applicants. The process can be divided into five steps, which is described thoroughly below.

#### **Major changes of the process after implementing Lean Management:**

In the Asylum Registration Process the major change after the Lean implementation concerns the handover from the last step in this process to the next step-process in the total Asylum Process. Previously it was not articulated who, at the Immigrations Office, that actually had the responsibility of each specific case, which lead to a bottleneck and waiting time for the Asylum Applicant since no one took over the case. Today, it is clearly structured and the Asylum Applicant leaves the Immigrations Office with a summons, and the case will be placed at another administration who now owns the application. This improvement is one of the major changes that helped the Migration Office decrease the Asylum Process from 264 day to 90 back in 2010.

## The Asylum Registration Process



### 1. Registration

The asylum applicant physically enters the Immigrations Office and takes a queue patch.



### 2. Establishes application protocol

An administrator establishes an application protocol concerning contact details, disorders etc.



### 3. Fingerprint & Photography

In this step the asylum applicant leaves fingerprint and gets photographed.



### 4. Finalizing application protocol

In this meeting an interpreter that speaks the same language as the Asylum Applicant will be present, physically or through phone, in order to finalize the application, and also to provide the Asylum Applicant with information about following steps in the total asylum process.



### 5. Receives a summons

The Asylum Applicant will then leave the Immigrations Office with a summons regarding an inquiry call.



## 4.1.2 Analytical findings

With that background of this first case at the Immigrations Office, we continue by presenting the analysis of the same case. First comes the analysis of the definition of customers, followed by the definition of value, and then the last section regarding the waste in this process.

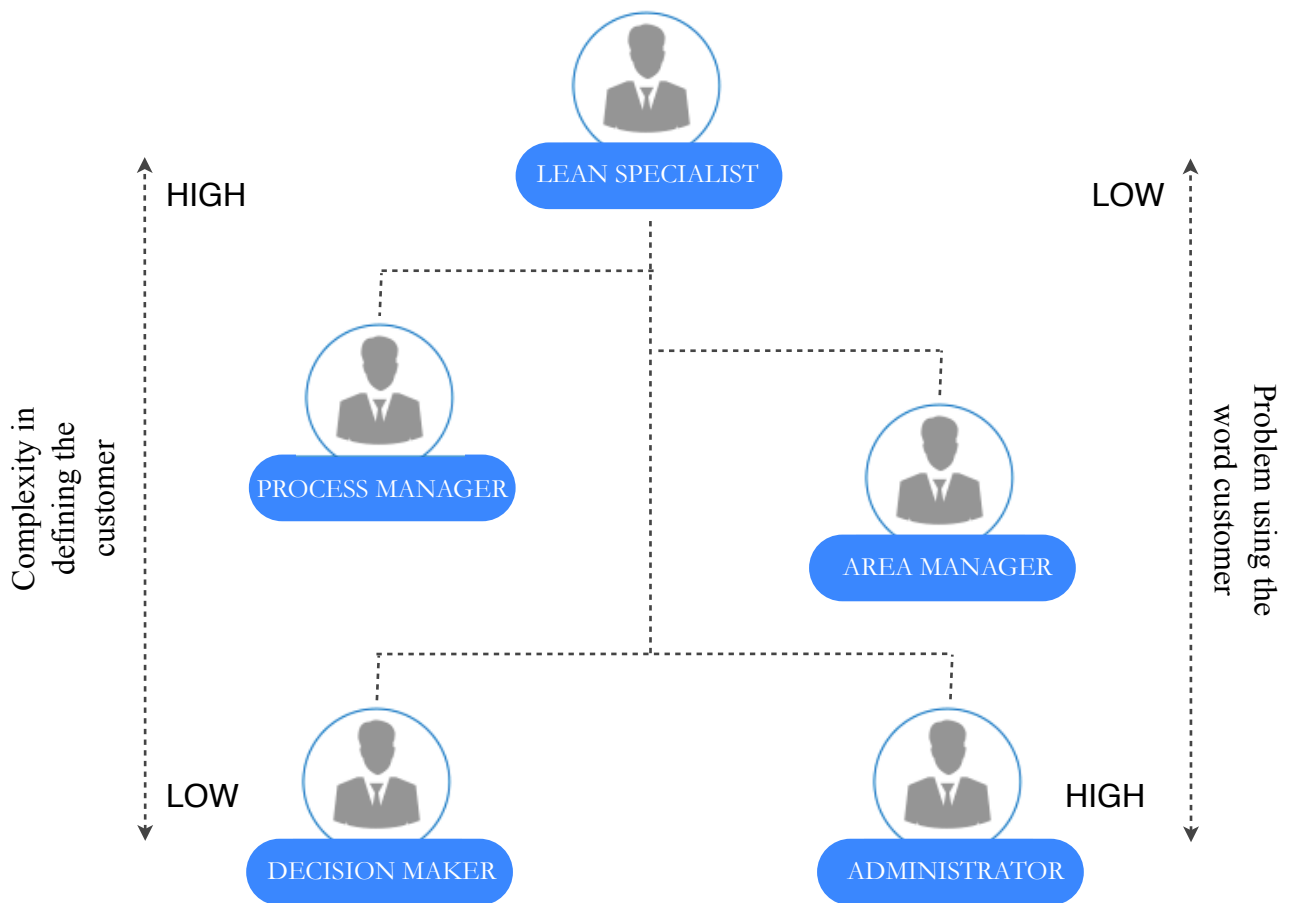
### 4.1.2.1 Customer

When asking about who the customer was, the answer was firmly: *“the Asylum Applicant”*. Lower down in the hierarchy, people working directly with the Asylum Applicants, the answer was more simplified than the answer received from the responsible for the process. The front-line employees answered *“the Asylum Applicants”* without hesitation, and without any further elaboration. For them there was no complexity in defining the customer. The process leader on the other hand said that there were other stakeholders to take into consideration as well. For the Immigrations Office the ultimate customer is of course the Asylum Applicant, but for their specific process he identified an internal customer, when handing over the case after the Asylum Applicant had been registered and gotten a summons for the next step in the further Asylum process. This is also where the biggest improvement in this process had happened since Lean was implemented. The summons was one of the reasons, in order to make sure no cases were forgotten, but the way of thinking of the internal colleague as a customer had helped in improving this hand-over according to the higher-level interviewees. For them they had to see the whole process and without the daily contact with the Asylum Applicant they were able to identify this internal customer as well, since he or she could be seen as the customer in what their process delivered.

They also identified additional stakeholders, but did not consider them as customers. One example is the interpreters that are a big part of the process. Another is the Government who has defined the laws they have to abide in the process.

Even though there were both an internal customer and the Asylum Applicant to take into account there did not seem to be any contradictions in how to work with multiple types of customers. For the front-line employees the complexity was none, since they only considered the Asylum Applicant as the customer, and not other internal colleagues.

The Process Leader also expressed the problem with the *“customer”*-notion for them, and that they just recently decided to never externally call the Asylum Applicant *“customer”* but instead *“the Applicant”*. The problem with calling the end-user a customer was partly because of the previous interpretations of what a *“customer”* is, and that it did not fit in with the role of the Asylum Applicant, but the main reason for the problem with the *“customer”*-notion is due to bad publicity in the Swedish media that they call their end-users *“customers”*.



**Figure 5 - The complexity in defining customer on different hierarchical levels**

#### 4.1.2.2 Value

The definitions of value within the Asylum Registration Process are to register the application, followed by time, and a correct decision. The main value was the registration itself because it is the way to make an Asylum Applicant presence in the country legal.

The short registration process has not been improved in time after the Lean implementation even though time has been the main definition of what value is. But there has been a reduction in time for the Asylum Applicant because of the improvement on how to hand over the case to the next internal process. The work with the summons has created this improvement.

*“A case should be promptly and with as few delays as possible”*

*– an Administrator*

The correct judgment and decision is important and considered a value. What a correct decision is, is based on Government laws. This may sound like a hygiene factor, but it brings up some implicit value. An example is the work with the interpreter. The interpreter is used as a help to get information in order to make a correct decision. If the administrator thinks that the interpreter is not good enough, he or she can choose to end the meeting, and set up a new meeting with a new interpreter. The interpreter becomes a mediator of the information and if that is not working properly, it can lead to an incorrect decision. The possibility for an administrator to end the meeting if the interpreter is not doing a good job has empowered the administrators to ensure higher quality in the decision-making, but also in the quality of the information received by the Asylum Applicant. The

interpreter is the main channel for information to the Asylum Applicant, and information is considered a value for them. If the interpreter does not work out properly, the Asylum Applicant will not receive the information properly.

*“Treat others the way you would like to be treated”*

*– an Administrator*

The Asylum Registration Process has also made some adjustments followed by the demand of the applicants. One example is that they now have open on Saturdays and Sundays as well. Immigrants arrive every day, and instead of creating a backlog during the weekends for Monday morning, the administrators work seven days a week to meet the demand of Immigrants.

Another example is the information brochures that have been improved with a more simple language, and in more languages. An identified value for the applicant is information. They have now made sure that the Applicant always receives information about the next step and a scheduled appointment for the next step before leaving.

All of these values defined are based on best guesses and not on any feedback from the Asylum Applicants or surveys conducted. There might be implicit feedback that creates an identification of values by administrators but, there are no processes in place to identify or track different values over time. For example time and quality of the decision are easy guesses as values for the Asylum Applicant, but they might also be contradictory in the sense that shortening the handling-time might inhibit the quality of decision, and even though laws regulate this exact example there

might be similar contradictions with other values that have not been identified.

#### **4.1.2.3 Waste**

Looking at the focus of the Lean implementation so far, it has mainly been put on internal efficiencies. One big issue for the Immigration Office is the need and booking of third party interpreters. At the Immigration Office there are job roles for booking interpreters but they are often choked with work and becomes a bottleneck for the process. One improvement with Lean is that administrators now have a list of numbers to interpreters themselves. When bookers of interpreters are cluttered with work, this has enabled the administrators to avoid the bottleneck and at the same time help a cluttered colleague.

The interpreters also create a waste when they do not live up to the standards needed as described earlier. But if they do, the quality of the meeting with the Asylum Applicant is more important than eliminating that imminent waste by continuing anyway. There is an implicit trade-off between time and quality here and the quality is the one premised. Over time they should however be able to improve their lists of interpreters with the ones they know are of high standard.

The main waste that has been focused on is double work. Before Lean was introduced there was a lot of this going on at the Immigrations Office in general, and in this process particularly. The aim now is to make sure the case goes from hand to hand, without any interruptions, and without any double work. The identification of an internal colleague as a customer has helped in this hand-over, and this is also where the lead-times have been improved the most. Another small improvement has been to eliminating waste by

making sure there is always paper at the copier. This sounds like a trifle, but has before created a lot of wasted time for administrators having to look for new paper to the copier, and they print a lot of document in their daily work.

A third successful effort has been to increase the transparency between teams and their schedules in order to be able to speed up the process of every case.

There is an effort to create continuous improvement through a whiteboard to put up any wastes or other issues encountered that could be improved. According to one interviewee the Immigrations Office has been really good to set up pilot project to test these suggestions in smaller scale before scaling them to the whole organization if they proved to be successful. The interviewee found this method to be very good and successful. The leader of this registration process was also happy with this continuous improvement-approach, but he felt like they had a hard time reaching the root cause with the brought up issues. There were many good suggestions up on the board but due to time constraints and the workload, there was not enough time to address these suggestions according to him.

The waste of the interpreters' quality is the one waste identified by the interviewees that is directly connected with customer-value. The other wastes identified they have not been able to link it directly with customer value. And this is what the Process Manager points out with the problem of finding the root cause. Finding the root cause would be to link the waste with the customer value and thus know how to tackle the waste. Instead the focus stays at reaching internal targets and keeping up with the daily work due to the geo-political situation that is creating a demand for their services that they have not experienced before. He describes it as suffocating, and it inhibits some of the Lean-work.

## **4.2 Case Two | The Immigrations Office | Unaccompanied Children**

### **4.2.1 Empirical Background**

The Unaccompanied Children Process is a step-process within the asylum process and concerns only children that comes to Sweden without their parents and is below 18 years old. This process is relatively complex and deals with many other actors that are in direct connection and can therefore take weeks to finalize. The process can be divided into six steps, which will be described thoroughly below.

### **Major changes of the process after implementing Lean Management:**

After implementing Lean, a decision was made that in order to make the child feel more calm and comfortable the same person that first received the child, will be the-one taking care of the following steps throughout the process. Another major change is, as in the Asylum Application Process, the handover from the last step in this process to the next process in the overall Asylum Process. Today, the responsibility to take care of each application is distributed, and someone at the Immigration Office will own this case from day one throughout the process.

## The process of Unaccompanied Children



### 1. Registration

The child physically enters the Immigrations Office and takes a queue patch.



### 2. Establishes application protocol

An administrator establishes an application protocol concerning contact details, disorders etc.



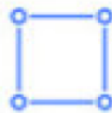
### 3. Fingerprint & Photography

In this step the child applicant leaves fingerprint and gets photographed.



### 4. Finalizing application protocol

In this meeting an interpreter that speaks the same language as the child will be present, physically or through phone, in order to finalize the application. The aim of this meeting is to determine the age, health condition and special requirements of the child in order to be able to facilitate the next step to assign the child custodian.



### 5. Synchronizing with other actors

In this step the administrator at Immigration Office will synchronize the child's case with other actors such as the Social Service to assign the child custodian.



### 6. Receives a summons

This is the last step in the application process. The custodian of the child receives a summons regarding the next step in the asylum process which is an inquiry call.

## 4.2.2 Analytical findings

Now that you have a better understanding of this second case at the Immigrations Office, we continue by presenting the analysis of this case. The sectioning in this analysis is the same as in the prior case, first comes the analysis of the definition of customers, followed by the definition of value, and then the last section regarding the waste in this process.

### 4.2.2.1 Customer

The main customers in this process are the unaccompanied children, but there exist contradictions in defining who the customers are. First of all, it can be controversial to define children as customers, so they are called Asylum Applicants and nothing else, as they did in the first case. The reason is the same here, and it is based on the usual interpretation of what a customer is, and that it can be misunderstood externally if they refer to the unaccompanied children as customers. But even though they are not called “customers” they are considered the main customer in a Lean point of view.

There are also identified customers internally. When a case is handed over to another process, the person taking over the case is considered the customer at that time. Considering everyone affected in whatever you do helps him or her focus on what is important with every task. It is quite often that an internal person could be identified as a customer with this logic.

There are many different stakeholders to take into account for this complex process, except those already mentioned, there are interpreters, lawyers, County’s, and other Public Service Organizations that needs to be incorporated in the process of the unaccompanied child. With the above-mentioned point of view, they all

could be, and are, seen as a customer in different steps of the process. The logic is the same as for the identification of the internal customers. Whoever is receiving the case in the next step is considered the customer.

### 4.2.2.2 Value

The value is defined based on the unaccompanied child mostly. Since the Lean approach was implemented, the customer value has been the main focus for this process according to the interviewees.

*“Thanks to the Lean  
Approach we now  
have this  
[the customer value]  
perspective”  
- An administrator*

Children need to be treated in a proper way. There are unique things to consider when a child is the customer. For example an administrator should not be too dressed up. The administrator also needs to be trained in how to treat and deal with children, and they receive training in that matter four times a year. This is internally called administrator support. The aim is for the administrator to adapt to the individual child. Is the child for example very nervous? Then they have to know how to act correctly in such a situation. For the child the interview might be an opportunity to tell the administrator everything. This makes it harder for the administrator who needs to extract all the necessary information without losing focus. Administrators are trained in memory psychology in order to deal with such a situation without blocking any important information by, for example, interrupting the child. It is more difficult to handle children and it demands a better methodology. All this work

in the handling and approach to children is based on the customer focus to make this process the least intimidating as possible for the children.

The interpreters are even more important in this process, and a big possibility to increase the value for the unaccompanied child is to ensure the quality of the interpreter and that they can handle a child properly. Even though they are aware of this in the Unaccompanied Children Process, and that it has improved, it is still a big source of waste when meetings need to be canceled due to a poorly performing interpreter.

The administrator that initiate a case with an unaccompanied child should be the administrator for the child throughout the process, this is a change being made in the organization due to increasing the customer value for the unaccompanied child by building security and trust.

The values defined in this are very focused on the unaccompanied children, and it is obvious that this is a process with a very fragile customer that needs the uttermost respect and quality in handling in order to be a successful process. On the other hand it is also obvious that the other types of customers mentioned are not considered when it comes to defining the value. Not once are the other types of customers spoken of spontaneously, and when asked it is rather something that is defined in every step of the process, but not something of focus in the overall process. The other types of customer's value is rather only dealt with, and considered, if they have to. Laws by the government for example, are considered when they must, and if they want to improve something in the process they first come up with a solution and then check if the law is accepting the change of the process or not.

The identified values are not based on feedback tools here either, but it is harder to use feedback tools in a proper manner when there is a child being the customer. Instead a lot of the values identified are based on previous knowledge, but also through research in sociology and psychology.

#### **4.2.2.3 Waste**

The first defined waste for the Unaccompanied Children Process was double work. Every interviewee from this process mentioned double work as the primary waste that had been focused on. This is where they could pick the "*low-hanging-fruits*" in the process, in the beginning of the Lean implementation. A connection to what customer value this created, was only based on a guess that the handling-time had decreased slightly.

The process leader said that they had a process mapping to identify different processes that can be merged. There are occasions of investigation that could be merged in order to be more efficient. When a suggested improvement like that has been defined they have to check if the law accept such an improvement before an actual improvement can be implemented. Implicitly this means that the laws have created some waste in the processes, and that there exist a difference in the values by the Government and the values by the unaccompanied children that is creating waste. The way they deal with it is to first look at the value for the end-user, the unaccompanied child, and then see if the laws tolerate the suggested improvement or not. If they do not, they simply obey the law and cross that possible solution off the list.

An administrator thought that the tool for continuous improvement was unclear and not standardized. He did not know how to take his list of suggestions and get feedback on them.



He thought of it as a creation of waste, to have such a tool without it working properly.

The interpreter bottleneck is present in this process as well, and might be even more severe here. The reason being that the administrators are special trained in order to handle children, but the interpreters are not, which makes the possibility to have an interpreter that does not work out increased, compared to other processes at the Immigrations Office. Most interpreters lack the methodology on how to handle the situation with children. Because of the low number of interpreters that work well with children this bottleneck is a severe one, and is a problem that they have not yet solved.

## **4.3 Case Three - The Social Insurance Agency - Easier Living**

### **4.3.1 Empirical Background**

The process of easier living deals with disability allowance and determines if the insured person can get money due to a disability or illness that makes the person in need of assistance in their daily life, or who have additional costs due to this. The process takes up to months, and can be divided into six steps, which will be described thoroughly below.

#### ***Major changes of the process after implementing Lean Management:***

There is one major change within this process that currently is taking place and affects how the different cases are sorted and distributed between employees. Since this change is not yet implemented this process is considered to look almost the same as before.

## The process of Easier Living



### **1. Submit an application by mail**

This application has to be done by mail and the customer will send it to the scanning center in Östersund.



### **2. Generates a matter of management systems into the scanning center in Östersund**

All applications appear at the scanning center in Östersund where all issues will be distributed to the specific catchment area that own the case.



### **3. Specific offices receives the application-case**

All applications are divided between different administrators in the office.



### **4. An administrator starts to investigate the case and is contacting the customer**

An administrator starts to investigate the application and require more information from the customer if needed. They furthermore contact the customer by phone and informs that they are working on the application. The Social Insurance Agency then provides the customer assistant to further help with coordination of other potential cases he or she already might have at the Social Insurance Agency.



### **5. Administrator compiles the file and sends it on to a decision maker**

An administrator compiles the file and sends it on to a decision maker that approves the case and sends it further on to the customer. The customer receives the decision and has 14 days to raise any opinions regarding the decision.



### **6. A decision is made**

A decision is made and will be sent to the customer.

### 4.3.2 Analytical findings

Following is the analysis of the first case at the Social Insurance Agency. The structure of the analysis is the same as the previous two analyses.

#### 4.3.2.1 Customer

Employees on a lower hierarchical level uses the expression; “the insured”, while people on a higher hierarchical level explained that they used to use “*the insured*” as the expression instead of “*customer*”, but realized that it was a too narrow expression why they today always talk about “*customers*”. It was difficulties in articulating a clear definition of who the customers are, when talking to employees on a higher hierarchical level;

*“it can be defined as  
citizens, or people  
living in Sweden or  
maybe.. actually I am  
not sure about it”.*

*- The Area Manager*

On the other hand employees on a lower hierarchical level stated that there are both indirect and direct customers. The person taking over a task is considered being a customer, which makes it possible for the employee to improve time and quality in his or her work by creating different mind-sets through this type of identification of internal customers as well.

*“I consider the person  
taking over my task to  
be my customer”*

*- A Decision Maker*

It is a distinct difference in how employees on a different hierarchical level within the “*Easier Living process*” actually define the customer. On a lower hierarchical level, interviewed employees name the customer as “*the insured*”. On a higher hierarchical level there is a more complex view of who the customers actually are, and there is a clear problem in pinpointing the exact definition.

#### 4.3.2.2 Value

There is a homogenous picture in that value is defined out of results from customer research made by the organization. The Social Insurance Agency has stated “*Customer-Promises*” that permeates the entire organization. All interviewed employees states that value is based on these words, which are; (1) *humane*, that stands for respect and understanding. (2) *Safer*, the process should be predictable and the customer should be aware of what the next step ought to be. (3) *Easier*, in how to reach the Social Insurance Agency by for example providing self-service and developing digitalization.

Another employee described that the organization previously was result-driven and since Lean was implemented it is more towards being value-driven.

*“Before taking any  
new decisions, you  
make sure that the  
new way working is  
aligned with these  
“Customer-  
Promises”.*

*- An Administrator*

Also, decisions are today more personal and less formal. All reconsideration cases are gathered and it will be analyzed whether a more personalized way of dealing with decisions creates less reconsideration or not. If this is the case, as they think it is, then it means that the more satisfied the customer is, the more efficient the process will be. This is a way of seeing the bigger picture, and the end-to-end perspective. In the single task it is hard to motivate a personal written letter compared to a standardized one, but if they can trace the personalized letters to a decrease in reconsideration cases then that is a more efficient approach for the process as a whole, and it is based on the increased customer focus. This is in a way a feedback tool, to track the failure demand, and see if changes in what they do decreases the failure demand or not, thus knowing if they created any additional customer value.

Another example of increased value is that they are providing the customer with sufficient information in order to personally be able to judge whether to apply or not. This is done to help the customer make an own judgment before entering the whole process in order to decrease the negative reaction if they receive a refusal.

When talking value they also identified a value in the respect for the individual, and to deal with the end-user with the full amount of respect even though they get a negative decision. They do their best in order to create some satisfaction with the Social Insurance Agency even if you get a refusal, through creating an understanding of what the decision is based on, and also through the treatment.

The process of “*Easier Living*” shows a homogenous picture of that the main customer is “*the insured*”, which then enable the organization to define tools in how to satisfy

them. Through research and surveys the Social Insurance Agency manage to signal a coherent picture of what is considered to be value for their main customers. This also creates a coherent knowledge on how to work in order to deliver value by aligning these “*Customer-Promises*” with each improvement work.

But beyond these values defined for the end-user, “*The Insured*”, employees within the “*Easier Living Process*” has created a feedback tool to learn what their internal customer consider as value in order to work with continuous improvement and to make sure to deliver value to their internal customers. The decision-makers that does not have any direct contact with the end-user, but instead see the administrator as their customer initiated this. They feel a lack of feedback from the end-users, and that is the reason why they initiated this feedback tool to at least get feedback from their internal customer, the administrator, to improve the collaboration between these two professions further by understanding what the administrator value is.

#### 4.3.2.3 Waste

Interviewed people testify about a continuously work in reducing waste. By for example using a case handling system, work-duplication, such as requiring the same certificates from customer more than once, helps reducing work that does not bring value to the customers. This has resulted in a quicker process, which is considered to be a value for the customer. Furthermore, by improving how employees reconnect to customers, they have managed to reduce unnecessary work, which has led to fewer reconnects, which is of value for the customer. One can see the pattern of all wastes being motivated by increasing the value for the end-users.

In this process they have also identified waste that occur from following Swedish laws. However, in this case, compared to the other three, they are actually in the middle of reinterpreting these laws in order to be able to change their routines and way of working. This is done with a focus and aim to increase the value for the end-user. Laws can be interpreted differently, and since Lean was implemented with the focus on the end-user, the need to reinterpret the laws has been identified and is now undertaken. This is a new way of dealing with the complexity of different values from different stakeholders, with the aim of aligning the different stakeholders value a bit more.

Finally, an administrator explained about an internal database, where every team could present their solutions in dealing with obstacles, in order to create transparency of other teams solutions to help eliminate internal waste in reinventing the wheel by every team as soon as they identified a waste in their work. When a team has identified a waste and come up with a solution, this solution is presented in this database that is accessible for the whole organization in order for others to adapt to and/or try out themselves. This has helped a lot according to the interviewee describing this database. To spread the knowledge created while working with Lean in a team this is a great way to create value to internal colleagues, or “customers” if you will, and is a way of eliminating the waste of every team trying to solve the same issues.

## **4.4 Case Four - The Social Insurance Agency - Easier Sick-leave**

### **4.4.1 Empirical Background**

There can be many reasons to why a person is applying for compensation due to sick leave. The degree of injury can vary from being at home from work some few days due to a cold, to a broken leg or more long-term sick leave as physical illness. This process can take one to several months and it can be divided into six steps, which will be described thoroughly below.

### **Major changes of the process after implementing Lean Management:**

One of the major changes after the Lean implementation affects step five in this process. This step was a major bottleneck within the process of easier living. Since many customers applied for a long-term sick leave, it required lots of resources in terms of a personal administrator to attend meetings with different actors, something this person did not have time to manage.

Today, all application cases will be sorted by customer need, made by research in what actually gives value according to the customer. The sorting process is now standardized and all applications fall into any of the three groups described below;

K1: customers with easy disease that shortly will be back at work, e.g. having a cold.

K2: customers with disease that will be on sick leave for some weeks or months, e.g. breaking a leg.

K3: customers that are having a long-term disease that will need other actors incorporated in the process to get the person back in some kind of work if possible, e.g. becoming blind and thus having to change profession.

All application-cases will be sorted and dealt with regards to their day of registration at the Social Insurance Agency and not according to how long this person has been on sick leave.

## The process of Easier Sick-leave



### 1. Notification of illness to the Social Insurance Agency

A registration of the customer will be made at the Social Insurance Agency. This step will occur 14 days after the person's first day of sickness and the registration can be made either by the customer or by the employer. Also, medical certification proving the case will be enclosed and it is very common that the doctor will send it electronically.



### 2. Answer from the Social Insurance Agency

The customer will receive a post mail from the Social Insurance Agency with a confirmation as well as information in how to apply for compensation due to sick-leave.



### 3. Customer is making an application-registration to get money

The customer is then making a registration by phone or online. The waiting time by phone is normally one hour and in order to make the registration online e-identification is needed.



### 4. The application-case goes to a scanning center in Östersund

All applications are received at the scanning center in Östersund and email will be used due to privacy rules. The scanning center will furthermore distribute all application-cases to specific offices around Sweden.



### 5. Administrator starts to sort all issues

A decision-maker receives applications-cases from all types of customers that have applied for compensation. The first step for the administrator is to decide whether this customer should get money or not. If this customer is granted to get compensation a personal administrator receives this case and will have to sort out the cause of ill in order to find out whether this customer is in need of coordination of different actors.



### 6. Administrator starts to investigate the application-case

The administrator starts to investigate the case and leaves a decision to the customer.



## 4.4.2 Analytical findings

This is the fourth and final within-case analysis, and it follows the same structure as the three prior cases.

### 4.4.2.1 Customer

In the beginning of the implementation of Lean, it hurt to talk about “customers” internally for many employees. But over time the customer-definition has evolved. In the beginning it was solely the Insured, the end-user of the service, which was the customer. The customer-definition felt like talking about something that was a passive object in the beginning of the Lean-implementation. Over time that feeling along with the definition has evolved and is now defined and talked about as individuals with a will and a need. The customer-definition has also been broadened to include many different types of customers. The ultimate customer is still the end-user, but they have also identified other actors as customers, as well as internal people as customers. This has been a way of loosening up the definition in order to consider whoever is receiving what is delivered as the customer. If what you are doing is handed over to a colleague in the Social Security Agency, he or she is also considered a customer in order to increase the cooperation internally and reduce handover-delays. This is an initiated change of the customer-definition by top management at the Social Insurance Agency. This has proven to be a good concept in order to help employees really grasp that the customer definition is way broader than their own interpretation of it. It is also a way of looking at the end-to-end perspective of the process and identifies whoever receives what everyone is doing as the customer in order to fuel the flow in the process.

Internally the end-user is always referred to as a “customer”, but in external communication such as the end-users journals they are called “*the Insured*”.

One of the interviewees defined the customer-definition by saying that there are three types of different customers - one being the end-user, the second being the external actors, and the third being internal customers. When talking flow in the process they should all be considered customers, because their definition melts together and does not really matter in that flow-context.

This describes a Lean-journey, where the customer definition has evolved over time. From something that hurt to talk about, into something that is widely accepted throughout the organization, but is still controversial compared with how most people define a customer.

There is a difference though, between the customer definition by managers and those working closely with the end-user. Working closely with the end-user seems to make the employees only seeing the Insured, the end-user, as a customer and thus simplifying the definition of the customer. The managers on the other hand has to deal with a bigger picture, and their imminent work is delivered to other internal and external stakeholders than the end-user, thus naturally creating the more complex definition of the customer

The end-user is also divided into three types of customer in this particular case at the Social Insurance Agency. This type of standardization might be somewhat unorthodox. This is an effort trying to standardize the need of the customers in order to address their different needs earlier in the process. However, this might create some other obstacles when dealing with individuals that are often in a

unique situation, according to one of the interviewees. It is quite often that a K2 becomes a K3 for example, which instead creates waste in the process.

#### 4.4.2.2 Value

When talking about value at the Social Insurance Agency, it seems that everyone starts by talking about their “*Customer-Promises*”. They are based on customer-surveys and builds on what the customer wants. They are “*More humane*”, “*Safer*”, and “*Easier*”. See the analysis of case three in section 4.3.2.2 for a more detailed description of the “*Customer-Promises*” of the Social Insurance Agency. So the customer value is based on surveys and then concretized based on these more intangible values.

The customer value always seem to refer back to these “*Customer-Promises*” defined. Information is an important value for customers in order to get predictability and a feeling of security. These types of values are implemented and built-in into the processes in order for them to be more or less automated. The digitalization is something that is focused a lot on at the Social Security Agency and it is closely connected with the “*easier*”-promise. They are the Swedish Government Agency that is investing the most money in digitalization.

The information is important, but another value is to not over-communicate things. This is mainly in more simple cases where too much information can be perceived by the end-user as something irritating. Making it simpler by decreasing the amount of information in these simple cases is creating value for those particular end-users. In this case they use the standardization of the different types of end-users in order to predict if they think the end-

user want as much information as possible or if it is the opposite. The K1-customers are the one that receives the least amount of information, because of the simple nature in their cases.

Another very important value is the treatment of the end-users by, mainly, the administrators. A lot of the customer-satisfaction can be traced back to this variable, and it is seen time and time again in customer-surveys.

A more broad perspective of the value is described by the Area Manager as a responsibility in society, to make sure people get back to work again. Some customers need a limit to avoid getting stuck in a long-term sick-leave. Almost no one wants to be stuck in a long-term sick-leave and then it is up to the Social Insurance Agency to help people get back into work, and not only to decide whether to pay out insurance-money or not. This is a way of taking the end-to-end perspective into account, where the values of the Government and society is included as well, and aligns with the end-users value.

*“The long-term vision is that we should be part of a welfare-system that creates a safety net for citizens when life takes an unexpected turn”*

*- Process Manager*

A result of this customer value focus is that employees see beyond the internal work, which is obvious when looking at the end-to-end perspective that they have. It is also obvious by how one Area Manager described it:

*“I can hear our employees have different discussions compared to 4-5 years ago. Today, it sounds like; This is insane, this will not work for the customer’, earlier it was instead ‘this will not work for us’.”*

*- Area Manager*

Sometimes the customer value collides with laws, which can put everything on its tipping point. It is when an end-user receives a negative decision the challenge is the greatest to create some kind of customer satisfaction anyhow. The Process Manager points out the importance of clear information, and to describe for the customer why this decision was made. One value is to make a correct decision, and due to laws, some will receive decisions they are not satisfied with.

Another value defined by the interviewees working close to the end-user, was to not standardize customers, but instead see them as unique individuals. But on the other hand this specific case has made somewhat of standardization with their definition of three types of end-users. One interviewee did not see this as contradictory while another was concerned with the early segmentation of end-users. The concerned interviewee described the end-users as complex individuals that might jump between different end-user definitions over time creating extra- and double work for

administrators. On the other hand the other interviewee working closely with the end-user thought that this end-user segmentation helped them to address their individual needs better, because of the standardization being based on the end-user needs. There is a trade-off between the two paths of either standardizing different end-users depending on their needs, and to see to each case individually and act based on that.

#### **4.4.2.3 Waste**

There are a lot of wastes identified by the interviewees, and a few of them are solely internal, such as unnecessary lead-times during handovers between different positions, and the number of time-consuming meetings. But a lot of the wastes defined in the interviews are more complex ones that expand beyond the Social Insurance Agency borders and are, somewhat or closely, linked to customer value.

One type of such waste is the obscurity in their communication experienced by the end-users. This creates a lot of failure demand for the customer service center when the end-users do not understand the information they are given by the Social Insurance Agency. The end users experience dissatisfaction and more resources are needed to cover and address the failure demand created. According to the process leader interviewed, a holistic perspective is needed in order to create a connection between these wastes identified, and customer value. According to him they are about to understand and grasp this link to customer value, and how to think in order to deal with wastes in the right manner. Without the holistic viewpoint, there is a big chance of creating sub-optimization. One example given is when an end-user is about to receive a decision. Either the administrator can send a letter with the information, which would

be the most resource efficient way for this specific task, or the administrator could pick up the phone and call the end-user to deliver the decision and make sure the information is received in the correct way by the Insured. The latter alternative works better in the holistic perspective due to the decreased risk of creating failure demand, because the customer will more easily interpret the information incorrectly from a letter than in a conversation over phone with the administrator. This alternative is taking more time when looking at the specific task, and also when looking at this specific employees efficiency, but it is more efficient for both the customer and the overall organization. This is the way to increase quality, and decrease overall lead-times. According to the process leader this is how they have to reason in order to be able to link the internal efficiencies with the external effectiveness, i.e. customer value.

An Area Manager gives an example where the end-to-end perspective was not used. Many end-users are working in another country during the weekdays due to geographical vicinity in this area. The big issue here is the contact with employers in another country. Instead of dealing with the problem directly a lot of document are written creating unnecessary extra work that he defines as waste. He describes the work of the Social Security Agency as something complex, and the contact with the employers in another country makes it even more complex, which has so far resulted in quick fixes that has instead created waste. If this matter had been handled the same way as the above-mentioned example, with an end-to-end perspective, they would not have created these wastes, and instead found a long-term solution to this extra complexity.

This end-to-end perspective is also a very effective way to link customer value with value

of other stakeholders, such as the Government. The value of the Government economy and the end-user on long-term sick-leave is to get back to work. That is where their values align and stop being contradictory. Taking the more holistic perspective might open more windows on how to handle the complexity of different values of different stakeholders.

Laws also create waste, but according to some of the interviewees they are necessary in another point of view. One of the interviewees explained that some ideas for improvement has been hampered by laws, but that the Social Insurance Agency then has submitted proposals for some changes in the law in order to be able to follow through with these changes. There is another waste identified by one of the interviewees that for the end-user should be considered waste but for another stakeholder is value. That is the IT-system that is used to collect all sort of statistics, and apart from the top management, these statistics are used by another government agency, namely the Swedish Central Bureau of Statistics. The work with this extremely old IT-system takes a lot of time from the administrators to deal with, and they perceive it as a form of waste, although it is creating value for a totally different type of stakeholder.

## 4.5 Cross-case analysis

In this cross-case analysis we first look at different possible patterns between the different cases in order to see if we can cluster any cases before doing the actual cross-case analysis. The found patterns and the clustering are followed by an analysis between the different clustered cases in order to analyze the similarities and differences between the clustered cases.

### 4.5.1 Patterns

All four cases show some similarities. One similarity is the complexity, or simplicity, of defining the customer. There is the end-user customer of the service but every stakeholder can also be seen as a customer depending on who is served in each task. A task by one employee at the Public Service Organization that is handed over to an internal colleague is seeing the colleague as a customer during that task. Another similarity is that every case has identified wastes that are based on the internal efficiency, such as double work.

But there are also many differences that can be found between the cases that we have researched. These differences are mainly seen between the cases at the Immigration Office and the cases at the Social Insurance Agency, and not between the polarized cases, i.e the difference in their complexity. These differences seen might be due to organizational differences, but they might also be based on the different approaches on how to work with Lean in each of the Public Service Organization. One big difference is how the implementation of Lean has been conducted in each of the organizations as described by the Head of Lean Managers, Lean Specialist, in each organization. This is also seen when

conducting our research in the different cases, because of artifacts from the different approaches that are apparent when interviewing employees. One of these “*artifacts*” is that there is congruence between answers on different questions in both cases of the Social Insurance Agency that is not seen at The Immigrations Office. In the Immigrations Office the answer on what value is differs a lot between different interviewees, while the definition of value at the Social Insurance Agency are the same from each interviewee, namely their “*Customer-Promises*”, and values based on these. Another difference is that they do not want to call the end-user as a “*customer*” at the Immigrations Office, while the end-user is referred to as the customer at the Social Insurance Agency.

There is also a big difference in how a process is seen at the Social Insurance Agency compared to the two cases at the Immigrations Office. There is a broader view on the process with an end-to-end perspective at the Social Insurance agency that was not found in our research at the Immigrations Office.

In the following cross-case analysis we have therefore chosen to cluster the both cases at the Immigrations Office together and compare them with the two cases at the Social Insurance Agency that is also clustered together.

### 4.5.2 Cross-case analysis of The Social Insurance Agency and the Immigrations Office

This analysis follows the same pattern as the within-case analyses did. We begin with analyzing similarities and differences in the definition of the customer, followed by the definition and work with value, and we end by analyzing the work with wastes.

#### 4.5.2.2 Customer

The overarching customer definition is actually more or less the same for both the Immigrations Office and the Social Insurance Agency. They have defined the end-user as the main customer, but they have also considered other stakeholders as customers including internal customers within their own organizations. In our research it is obvious that the focus is on the end-user for both organizations, in order to tackle the following complexity of defining the value. And there might just be no need to make it more complex than that in either of the organizations. On the other hand, both organizations have taken the customer definition to a new level by defining internal colleagues customers as well. This might be a good way of changing how the word “customer” is interpreted in the organizations since it is the word “customer” in itself that creates a lot of confusion in the Public Service Organization.

But there are a few differences between the two organizations in their customer definition as well. While the Immigrations Office does not explicitly call their end-user a “customer” but rather “*the Applicant*”, the Social Insurance Agency explicitly calls them “*the customer*” instead. The notion “customer” has been a sensitive topic for the Immigrations Office, and it is partly because of this that they have chosen to change the notion to “*The Asylum Applicant*”. The Social Insurance Agency on the other hand has firmly used the name “customer” and said that it hurt a bit in the beginning but that it now has stuck, and that the customer definition and interpretation has evolved from being a “*passive object*” into being considered an individual. This determination has created a kind of journey in the definition of the customer at the Social Insurance Agency. From hurting, to becoming a notion accepted by everyone.

#### 4.5.2.3 Value

If the customer definition was quite similar between both organizations, the value definition instead differs a lot. While the Immigrations Office mainly focused on time and quality, the Social Insurance Agency instead defined value based on their “*Customer-Promises*”, and these “*Customer-Promises*” was based on thorough customer surveys to a large number of end-users. The Immigrations Office instead assumed what value was for their end-users and did not conduct any surveys or feedback-tools. The focus on value at the Social Insurance Agency also seemed to be more common, while the Immigrations Office rather had their focus on eliminating wastes.

Another big difference between the two organizations was the end-to-end perspective that the Social Insurance Agency had, and the Immigrations Office had not. The overall value for the end-user at the Social Insurance Agency was defined as getting back to work again, while the main goal at the Immigrations Office was for the end-user to go through the process as quickly as possible, and with a correct decision based on the laws they have to follow. The wider end-to-end perspective taken by the Social Insurance Agency made it possible for them to align the overall value for one of their customers, the Government, but also their main customer, the Insured.

#### 4.5.2.1 Waste

The point with looking into how they worked with waste is because when it is closely linked to customer value, it is an indirect way of working with the value, and there are apparent differences between how waste is defined at

the Immigrations Office and at the Social Insurance Agency.

The Immigrations Office almost solely identifies wastes as wastes that is hampering the internal efficiency. In the interviews there were no thought of linking these with customer value. The Social Security Agency also identified some wastes that mostly linked to internal efficiencies, but they had a way of thinking that made sure that these possible wastes actually linked to customer value and an overall improvement for the whole process. They had improved by seeing the process with an end-to-end perspective. For the Social Insurance Agency, this is their key to be able to find the link between internal efficiencies and external effectiveness. For them waste reduction is not only to free up resources, or increase cost savings, but it is also a way of improving the value for their customers. Something that seems like a waste at the first sight might actually be something valuable when looking at the bigger end-to-end picture. Changing from delivering decisions over phone to sending mail, might seem like an improvement in resource utility, but with the end-to-end perspective this might create more uncertainty among customer that end up calling the customer service, since they are unsure about the content of the mail, instead. It also creates more dissatisfaction among the end-users when such failure demand is created. The risk is apparent that the Immigrations Office might miss such reasoning when they identify waste, thus creating waste somewhere else in the worst-case scenario. The Immigrations Office seems to still be in the early stage of picking low hanging fruits instead of trying to find the link to customer value and take the broader end-to-end perspective. Their focus is still more towards waste than value.

Laws by the Government are creating some wastes in all the cases that we researched, but

there was a big difference in how they handled these laws between the two organizations. The Immigrations Office on the one hand just followed the laws, and if it put a halt in their improvement work, they discontinued with that solution. The Social Insurance Agency on the other hand tried another approach where they instead try to align the value of their end-user with the value of the Governments by both reinterpret laws, and propose changes to the laws. Instead of thinking of laws as something carved in stone, they see them as a value by the Government that might be able to adjust to fit better with values of their other customer, the end-user.

## 4.6 Summary of the analysis

	<b>The Social Insurance Agency</b>	<b>The Immigrations Office</b>
<b>Customer</b>	1. End-users, 2. Other actors, 3. Internal	1. End-users, 2. Other actors, 3. Internal
<b>Value</b>	<b>Focus</b> on end-user value  Starting to deal with complexity of other stakeholders value congruent throughout the organization	Only end-user value  Differs from person to person in definition
<b>Waste</b>	Beginning to link waste with customer value through an end-to-end perspective	<b>Focus</b> on waste



## 5. Discussion

The customer definition is more complex than the value definition as we can see in our research. While there are many types of potential customers defined by the interviewees the value was defined based on the end-user of the service. First of all, this customer complexity was mostly found in the higher hierarchies than among those employees working closely with the end-user. For them on the other hand it was full focus on the end-user as the customer. It is logical to derive this from the different realities of these different roles within the company. While a manager has to deal with many types of different customers the administrator only has to focus on his or her end-user he or she is serving. The focus on the end-user is exactly what Radnor & Osborne (2013) propose in their article, while Scorsone (2008) and Bateman et al. (2014) is arguing for the more complex picture of who the customer is. Radnor & Osborne (2013) also mentions this complexity but they argue for the focus to be on the end-user. So what should a Public Manager then listen to? We argue that the customer complexity is part of the Public Sector context and is because of that needed to be taken into account. In three out of four cases we found that there were three types of different customers identified, the first being the end-user of the service who had the most attention and focus, secondly there were other actors or stakeholders that were identified as customers in different parts of the processes, and third there were also internal customers identified. The idea here was to consider whoever receives what you are doing as a customer, and this explains the more simple definition among the front-line employees and the more complex definition among managers. Radnor & Johnston (2013) also found the identification of an internal customer in their

research, and we argue that this has been key to redefine the notion “customer” in the Public Sector from how it is perceived in the Private Sector. At first, the customer notion is a painful one for many in the Public Sector, but over time they have realized it is a powerful way of motivating your job efforts wherever you are in the organization, and that the definition of customer in Public Sector does not have anything to do with a commercial situation. This definition is not where the bigger difficulties lies though, but it is rather how it affects the work with value and waste that is the bigger question.

In our theoretical gap we based part of our research question on the “*Lean Self-Sustaining Improvement Cycle*” by Radnor & Johnston (2013). They argue that the picking of “*low-hanging-fruits*” is not sufficient to succeed with Lean over time, and that the internal efficiencies instead has to be linked with a customer focus in order to be successful in the long-term. According to a Process Leader at the Social Insurance Agency, implicitly, it is not only a link that is needed, but rather a focus on being externally effective, i.e doing the right things, and then adapt the internal efficiency based on that. This creates some slack in the resource efficiency but it focuses on the customer and creates an internal efficiency in the long run. Looking at the same example, the end-to-end perspective helped the Social Insurance Agency identify that something, that at the first sight looked like a waste, actually was creating value for the overall process. Reducing that waste without looking at the whole process would have created more failure demand and thus waste elsewhere. According to Seddon & Brand (2008) there is as much as 80 percent failure demand in the Public Sector (in UK), and this is where the real “*low-hanging-fruits*” are hanging. But they are only accessible by first focus on the customer, and

then benefit internally by this focus due to a reduction of failure demand. This focus and these results were seen in the both cases at the Social Insurance Agency, but they were not seen at the Immigrations Office, due to the lack of the end-to-end perspective and the main focus on waste there. With these findings we question the “*Lean Self-Sustaining Improvement Cycle*” and argue that it should be the other way around; first a focus on the customer, that then creates internal efficiencies through an end-to-end process focus (View figure 6 in the conclusion, p. 63).

A big difference between the two organizations is their different initial approaches to Lean. While the Immigrations Office focused on one process at a time, and working with pilot-projects, the Social Insurance Agency had a full implementation of Lean from the top-down. We can see that the end-to-end perspective that the Social Insurance Agency had, but the Immigrations Office lacked, derives from the full implementation where everyone is working with Lean and is defining value the same throughout the organization. Radnor & Walley (2008) identified these two types of Lean Approaches in the Public Sector, and argued that the full implementation created a Lean approach down to the organization's vision, while the project based approach, called RIE (Rapid Improvement Events), created a focus mainly on wastes and with the risk of failing in the long-term. In the McKinsey Quarterly by Bhatia & Drew (2007), they argue for both an end-to-end perspective and a full implementation with Lean in the Public Sector, and in our research we would argue that they go hand in hand, and that the full implementation will more easily create this end-to-end perspective that leads to a better understanding of how to handle waste, and how to define customer value.

At the Social Insurance Agency they have Lean rooted in their vision, which is apparent in that they all define the customer value the same, while the definition of value in the Immigrations Office is rather varied between different interviewees. The congruence in the Social Insurance Agency helps employees act based on these customer values, and it also helps them deal with the complexity of values from many types of customers, because these values are applicable to all types of customers. Besides being rooted in the vision of the organization they have also based them through extensive research and feedback mechanisms. There are no guesses in what is value, but it is instead based on the actual values of the customers through these researches. Di Pietro et al. (2013) argues for feedback tools in the Lean Public Sector, and the Social Insurance Agency is an organization that proves this right. The feedback tools used at the Social Insurance Agency has inspired employees on other levels that mainly identify internal colleagues as their everyday customer to initiate such feedback tools to these internal customers as well.

When it comes to values from different types of customers that are conflicting in one way or another, we have seen in our research two types of solutions by managing this complexity. It is the Social Insurance Agency that managed both these strategies. Administrative laws can sometimes be seen as the values of the Government. While the Immigrations Office just adapted to these administrative laws, the Social Insurance Agency dared to see them as conflicting values with values of the end-users, and thought of how to align the values of the Government with the values of the end-user. With their knowledge and insights in the process they initiated a dialogue with the Government raising these issues and suggested changes in

the administrative law to adapt to both the end-users and the Government's values, thus making them a little less conflicting and increasing both customers value. In the other case they instead reinterpret the laws since it was done such a long time ago. With the reinterpretation they could look at the laws with Lean-goggles and interpret it based on both the end-user value and the Government's value. Bateman et al. (2014) and Scorsone (2008) says that laws create inevitable wastes, and others argue that Lean is not applicable in the Public Sector context at all due to laws (Radnor & Osborne, 2013) but with this approach by the Social Insurance Agency, they all might be wrong - and the inevitable waste might not be so inevitable after all.

The second strategy is based on the end-to-end perspective. When the Social Insurance Agency works with their holistic end-to-end perspective they take into account the overall value of the end-user not just the imminent one. If the imminent one is getting money, the overall value is to get well and get back to work. It is in this end-to-end perspective they are able to align the Government and Society value with the end-user value. Looking at the imminent value for the end-user it does not align with the value of either the Government or the Society. The end-to-end perspective is opening up possibilities to deal with the value complexity between different types of customers because there are more possibilities to be able to align the value of the different customers with the broader perspective, and as Bathia & drew describes it, this end-to-end perspective might stretch beyond organizational borders, as it does in the Social Insurance Agency. If the Immigrations Office had taken such an end-to-end perspective, they would have talked more about integration and less about immigration, which would have

been an end-to-end perspective well beyond their organizational boarder too.

In both organizations the definition of value was less complex than their definition of who the customer was, but we would like to argue that they should dare to look at the complexity of the value that their complex multi-customer definition is creating. The proposition by Radnor & Osborne (2013) to focus on the end-user value is still the overarching goal but forgetting the other potential customers value will inhibit the full value to the end-user. The Social Insurance Agency is on their way of getting there by having their "*Customer-Promises*" that are applicable to all types of customer, even the internal ones, and they are also getting there by initiating feedback tools aimed at other types of customers than only the end-user. Daring to research, identify, and examine all the values of all the different types of customers will ultimately help in the long-term success of Lean in the Public Sector but we argue that it has to be together with a full implementation and an end-to-end perspective in order to be able to handle that complexity.

## 6. Conclusion

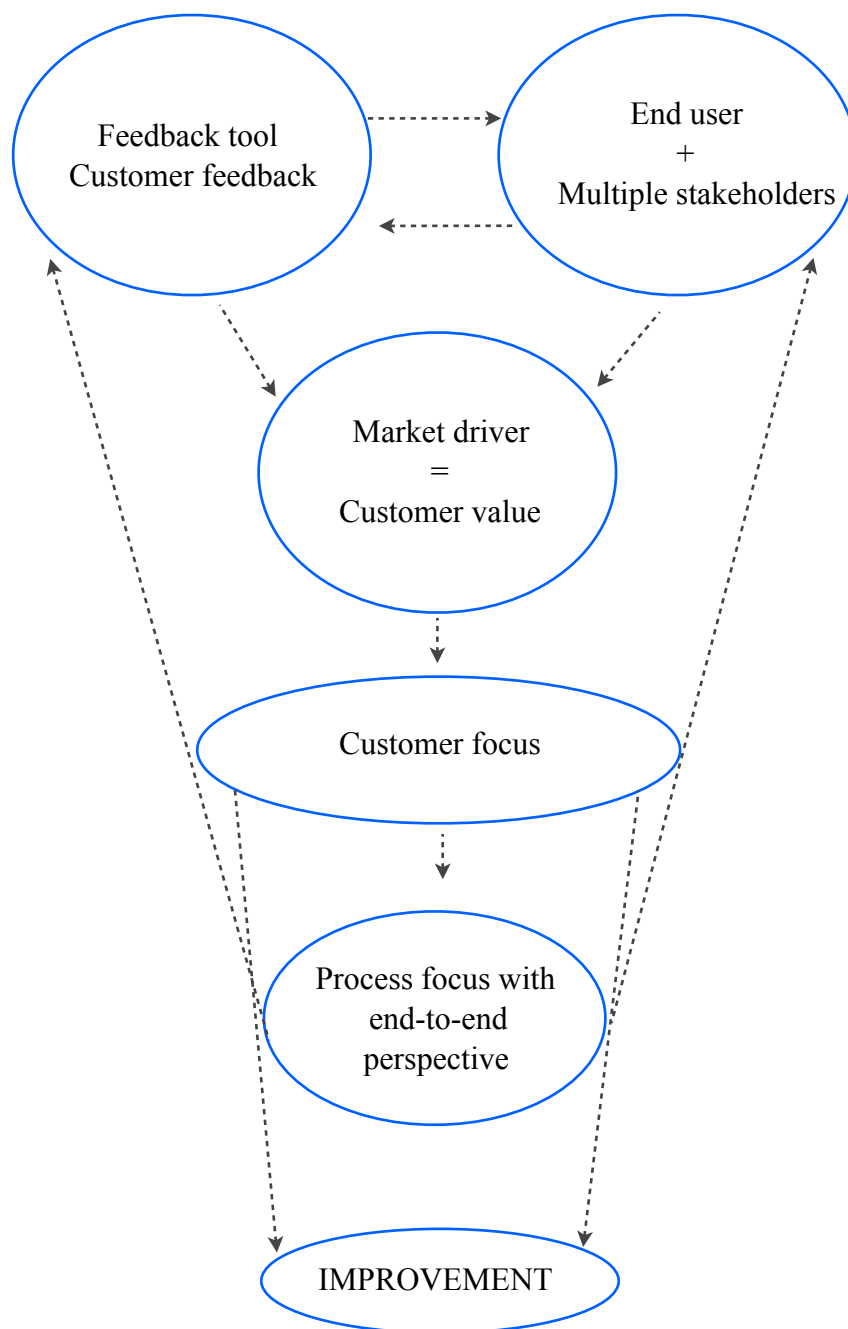
Our research derives into three conclusions on how to deal with the customer complexity, and values from different stakeholders in order to reach a long-term success of Lean.

First, the customer definition should be broad in order to identify all possible customers, and this should be done explicitly. The idea of focusing on whoever is next in the process as a customer is a good one, and we argue to work with this definition and make clear the “customer” in the Private Sector is not the same as a “customer” in a Lean Public Sector.

We also argue for a full implementation. Our research shows a better focus on customer value instead of wastes, and we also see a more broad perspective that makes it possible to deal with multiple stakeholders’ value even when they are conflicting. Even if an organization such as the Immigrations Office has started with a more project based implementation it is not too late to move over to a full implementation, but that leap of faith has to be taken, and we would argue; all in or nothing.

Our final conclusion is based on our disagreement with the “*Lean self-sustaining improvement cycle*” by Radnor & Johnston (2013) due to our findings. Instead of linking internal efficiencies with a customer focus, we argue that a Public Service Organization should start with the customer focus, and the customer focus only. Forget all the “*low-hanging-fruits*” and focus on the customer value solely, and when focusing on the customer value, base it on surveys and feedback tools and not on best guesses. The customer focus with the end-to-end perspective of the end-user will make sure that the Public Service Organizations are doing the right things, and it not until then that an internal

focus should be used in order to do the right things more efficient. We created a model (View figure 6 below) in order to visualize how we argue what type of Lean approach in the Public Sector is successful in the long-term. It is an extension of the model by Radnor & Johnston (2013) but with the difference that the “*market driver*” is specified how to work with, and that the customer focus comes before any process focus. And when a process focus is based on a customer focus, it should have the end-to-end perspective. We argue that this leads to a long-term success of lean, and is thus a successful improvement work.



*Figure 6- Our modified model of “the Lean self-sustaining improvement cycle”*

## **6.1 Theoretical implications & Practical implications**

Due to this research result, that shows how an implementation of Lean should start with an outside-in perspective with the customer in focus, is contradictory to some theories where scholars state that focus can start with an internal efficiency focus, due to the context of the Public Sector, but then has to be linked with customer focus (Radnor & Johnston, 2013; Radnor & Osbourne, 2013). Our results also show how the complexity of multiple stakeholders value can be dealt with, even laws by the government can be handled and should not be considered inevitable waste as Scorsone (2008) sees it.

It is shown that it takes time to implement Lean and to reach a coherent value-driven-perspective within the organization. Organizations should therefore use the full-implementation strategy and a top-down perspective in order to reach a holistic implementation of the Lean concept. The Social Insurance Agency exemplifies how this is accomplished in a short period of time within the Swedish Public Sector.

## **6.2 Limitations**

One of our greatest limitations was the timeframe of this thesis, which was limited to the spring semester 2015, why a retrospective study was applied in accordance to Voss et al. (2002). Another limitation was the number of Swedish Public Organizations that actually has implemented Lean Management, which shortened our list of selectable case-organizations. Another factor is that it was the same CEO that was in charge of the Lean implementation at both The Immigration

Office and The Social Insurance Agency, which might affect the reliability. Also, the complexity of measuring improvement and success is judged to be limitations, since it can affect the reliability of the results. Another limitation from that, is if Lean actually is the reason to greater performance or if that comes from internal efficiencies solely.

## **6.3 Further research**

Since this research is limited to the Swedish market, a study with an international perspective would be preferable in order to investigate if these findings are generic abroad.

Building on our exploratory research we would suggest further descriptive research in order to contribute with more detailed information within this topic.

We would also encourage a longitudinal research study that compares customer focus with process focus within Public Service Organizations and how their improvement work differs over time based on continuous measurements on relevant KPIs.

## 7. References

- Barratt, M., Choi, T. Y., & Li, M. (2011). Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management*, 29(4), 329-342. Retrieved from SCOPUS database.
- Barraza, M. F. S., Smith, T., & Dahlgaard-Park, S. M. (2009). Lean-kaizen public service: An empirical approach in Spanish local governments. *TQM Journal*, 21(2), 143-167. Retrieved from SCOPUS database.
- Bateman, N., Hines, P., & Davidson, P. (2014). Wider applications for Lean: An examination of the fundamental principles within public sector organisations. *International Journal of Productivity and Performance Management*, 63(5), 550-568. Retrieved from SCOPUS database.
- Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The case research strategy in studies of information systems. *MIS Quarterly*, , 369-386.
- Bhatia, N., & Drew, J. (2007). Applying Lean production to the public sector. *McKinsey Quarterly*, (3), 97-98. Retrieved from SCOPUS database.
- Bluhm, D. J., Harman, W., Lee, T. W., & Mitchell, T. R. (2011). Qualitative research in management: A decade of progress. *Journal of Management Studies*, 48(8), 1866-1891. Retrieved from SCOPUS database.
- Boyer, K. K., & McDermott, C. (1999). Strategic consensus in operations strategy. *Journal of Operations Management*, 17(3), 289-305.
- Boyne, G. A. (2002). Public and private management: What's the difference? *Journal of Management Studies*, 39(1), 97-122. Retrieved from SCOPUS database.
- Di Pietro, L., Mugion, R. G., & Renzi, M. F. (2013). An integrated approach between Lean and customer feedback tools: An empirical study in the public sector. *Total Quality Management and Business Excellence*, 24(7-8), 899-917. Retrieved from SCOPUS database.
- Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32. Retrieved from SCOPUS database.
- Fitzsimmons, J. A., & Fitzsimmons, M. J. (1994). *Service management for competitive advantage* . New York: McGraw-Hill. Retrieved from Books

- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, 29(13), 1465-1474.
- Gronroos, C. (2007). *Service management and marketing: Customer management in service competition*. Chichester: John Wiley. Retrieved from Books
- Leonard-Barton, D. (1990). A dual methodology for case studies: Synergistic use of a longitudinal single site with replicated multiple sites. *Organization Science*, 1(3), 248-266.
- Lokkerbol, J., Molenaar, M. F. A., & Does, R. J. M. M. (2012). Quality quandaries \*: An efficient public sector. *Quality Engineering*, 24(3), 431-435. doi:10.1080/08982112.2012.680226
- McCutcheon, D. M., & Meredith, J. R. (1993). Conducting case study research in operations management. *Journal of Operations Management*, 11(3), 239-256. Retrieved from SCOPUS database.
- Meredith, J. (1998). Building operations management theory through case and field research. *Journal of Operations Management*, 16(4), 441-454.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks: Sage Publications. Retrieved from Books
- Neumann, S. L., Mothersell, W. M., & Motwani, J. (2015). The need for implementing Lean in the public sector. *International Journal of Business Excellence*, 8(1), 104-121. doi:10.1504/IJBEX.2015.065982
- Radnor, Z. (2010). Transferring Lean into government. *Journal of Manufacturing Technology Management*, 21(3), 411-428. Retrieved from SCOPUS database.
- Radnor, Z., & Bucci, G. (2007). Evaluation of pacesetter: Lean senior leadership and operational management, within HMRC processing. London: HM Revenue & Customs).
- Radnor, Z., & Bucci, G. (2010). Analysis of Lean implementation in UK business schools and universities.
- Radnor, Z., & Johnston, R. (2013). Lean in UK government: Internal efficiency or customer service. *Production Planning and Control*, 24(10-11), 903-915. Retrieved from SCOPUS database.
- Radnor, Z., & Osborne, S. P. (2013). Lean: A failed theory for public services? *Public Management Review*, 15(2), 265-287. Retrieved from SCOPUS database.
- Radnor, Z., & Walley, P. (2008). Learning to walk before we try to run: Adapting Lean for the public sector. *Public Money and Management*, 28(1), 13-20. Retrieved from SCOPUS database.



- Scorsone, E. A. (2008). New development: What are the challenges in transferring Lean thinking to government. *Public Money and Management*, 28(1), 61-64. Retrieved from SCOPUS database.
- Seddon, J., & Brand, C. (2008). Debate: Systems thinking and public sector performance: Does Lean enhance public services? *Public Money and Management*, 28(1), 7-9. Retrieved from SCOPUS database.
- Suárez-Barraza, M. F., Smith, T., & Dahlgaard-Park, S. M. (2012). Lean service: A literature analysis and classification. *Total Quality Management and Business Excellence*, 23(3-4), 359-380. Retrieved from SCOPUS database.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management*, 14(3), 207-222.
- Voss, C., Tsikriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International Journal of Operations and Production Management*, 22(2), 195-219. Retrieved from SCOPUS database.
- Womack, J. P., & Jones, D. L. (1996). *Lean thinking: Banish waste and create wealth in your corporation*. New York: Simon & Schuster. Retrieved from Books
- Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks: Sage Publications. Retrieved from Books

# 8. Appendices

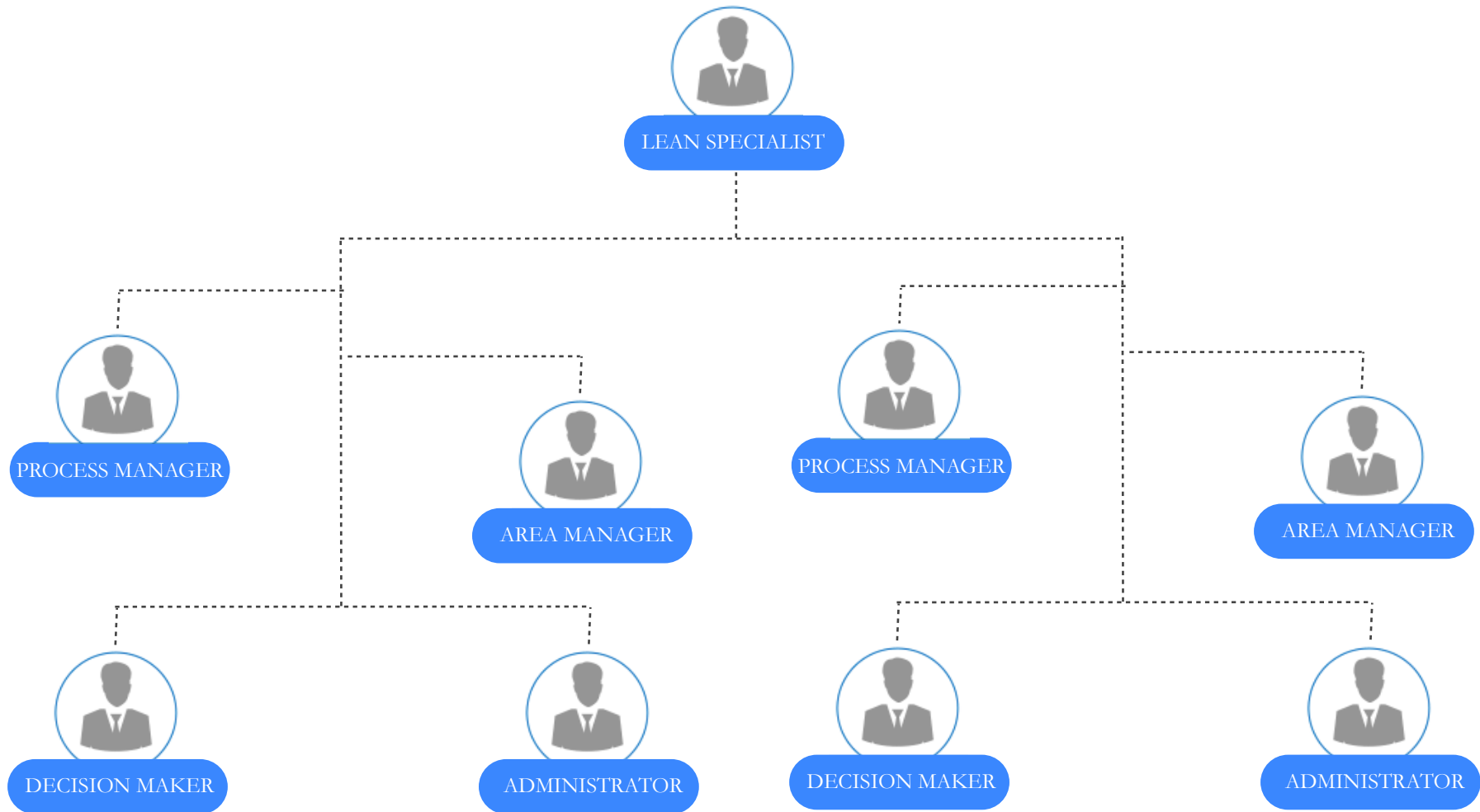
## - Appendix A - literature methodology

Author/s	Title	▼ Year ▼	Type	▼ Search (key) word ▼	Relevant ▼	Part of theory ▼
Shelli L. Neumann	An integrated approach between Lean and customer feedback tools, An empirical study in the public sector	2013	Article	Lean + "Public sector"	Yes	Yes
Radnor	Lean in UK Government: internal efficiency or customer service?	2012	Article	Lean + "Public sector"	Yes	Yes
Ghalib et al.	Lean, A failed theory for public services?	2013	Article	Lean + "Public sector"	Yes	Yes
Dammand et al.	McKinsey Quarterly - Applying Lean production to the public sector	2014	McKinsey Quarterly	Lean + "Public sector"	Yes	Yes
Lokkerbol et al.	New Development, What are the challenges in transferring Lean thinking to Government	2008	Article	Lean + "Public sector"	Yes	Yes
Radnor & Johnston	Quality Quandaries: An Efficient Public Sector	2012	Article	Lean + "Public sector"	Yes	Yes
Bhatia & Drew	The need for implementing Lean in the public sector	2015	Article	Lean + "Public sector"	Yes	Yes
Bateman et al	Transferring Lean into government	2009	Article	Lean + "Public sector"	Yes	Yes
Procter & Radnor	Wider applications for Lean	2013	Article	Lean + "Public sector"	Yes	Yes
Radnor & Osborne	A Survey Of Lean Implementation Gap Analysis In Public Sector Organizations	2012	Article	Lean + "Public sector"	Yes	No
Pietro et al	Lean implementation in non-repetitive companies: a survey and analysis	2012	Article	Lean + "Public sector"	Yes	No
Radnor	Lean management in hospitals: Evidence from Denmark	2014	Article	Lean + "Public sector"	Yes	No
Hines et al	Learning to walk before we try to run: Adapting Lean for the public sector	2010	Article	Lean + "Public sector"	Yes	No
Scorsone	Reducing waiting times in the NHS: is lack of capacity the problem?	2004	Article	Lean + "Public sector"	Yes	No
Alberto Portioli-Staudacher and Marco Tantardini	Taxing Times: Lean Working And The Creation Of (In)Efficiencies In Hm Revenue And Customs	2013	Article	Lean + "Public sector"	Yes	No
Kate Silvester	Teamworking under Lean in UK public services: Lean teams and team targets in Her Majesty's Revenue & Customs (HMRC)	2014	Article	Lean + "Public sector"	Yes	No
Carter et al.	Testing the Boundaries of Lean Thinking- Observations from the Legal Public Sector	2008	Article	Lean + "Public sector"	Yes	No
Carter et al	'All they lack is a chain': Lean and the new performance management in the British	2011	Article	Lean + "Public sector"	No	
Pedersen & Huniche	'Lean', new technologies and employment in public health services: employees' experiences in the National Health Service	2014	Article	Lean + "Public sector"	No	
Suarez-Barraza & Ramiz-Pujol	'Stressed out of my box': employee experience of Lean working and occupational ill-health in clerical work in the UK public sector	2013	Article	Lean + "Public sector"	No	
Clare L. Comm	A case study in applying Lean sustainability concepts to universities	2006	Article	Lean + "Public sector"	No	
Holweg	Can Lean save lives?	2007	Article	Lean + "Public sector"	No	
Jan, Hasenjager	Determinants of Lean success and failure in the Danish public sector	2010	Article	Lean + "Public sector"	No	
Lindsay et al	Implementation of Lean-Kaizen in the human resource service process	2009	Article	Lean + "Public sector"	No	
Piercy & Rich	Implementation of TQM and Lean Six Sigma Tools in Local Government- a Framework and a Case Study	2005	Article	Lean + "Public sector"	No	
Comm & Mathaisel	Improving healthcare services: Lean lessons from Aravind	2012	Article	Lean + "Public sector"	No	
Furterer & Elshennavy	Lean and mean in the civil service: the case of processing in HMRC	2011	Article	Lean + "Public sector"	No	
Pedersen & Huniche	Lean Government	2006	Article	Lean + "Public sector"	No	
Lodge & Bamford	Lean in Public Services: Panacea or Paradox?		PPT	Lean + "Public sector"	No	
David Fillingham	Lean transformation in the pure service environment: the case of the call service centre	2008	Article	Lean + "Public sector"	No	
Manuel F. Suarez Barraza	Lean-kaizen public service: an empirical approach in Spanish local governments	2009	Article	Lean + "Public sector"	No	
Zoe Radnor	Negotiating Lean, The fluidity and solidity of new management technologies in the Danish public sector	2010	Article	Lean + "Public sector"	No	
Riham Adel Hassan Sayed Ahmed	New Development- Using Lean Techniques to Reduce Radiology Waiting Times	2008	Article	Lean + "Public sector"	No	
Joseph J. Schiele*	Organizational change: A critical challenge for team effectiveness	2011	Article	Lean + "Public sector"	No	
Abraham Y. Nahm* and Kristy J. Lauver	Roadmap for continuous quality improvement and sustainability: a case study in Egyptian service sector organisation	2010	Article	Lean + "Public sector"	No	
Angel Díaz*, Juan Pons and Luis Solís	The genealogy of Lean production	2006	Article	Lean + "Public sector"	No	
Elisabeth Goodman	The role of management consultancy in implementing operations management in the public sector	2012	Article	Lean + "Public sector"	No	
Bob Carter, Andy Danford, Debra Howcroft,	The role of workers' trust and perceived benefits in Lean implementation success	2012	Article	Lean + "Public sector"	No	

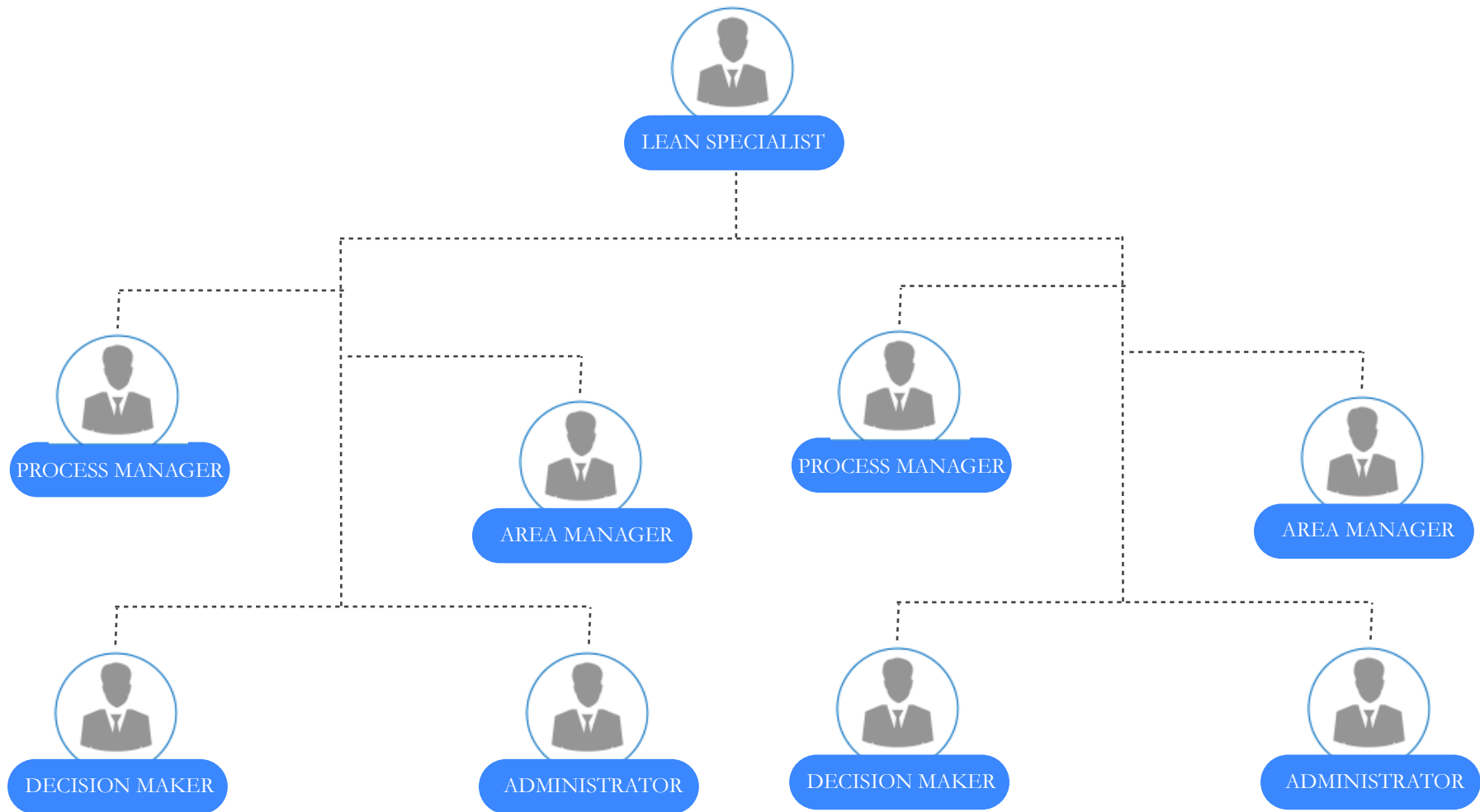
## - **Appendix B - interviewed people**

In total 18 interviews were made, where 9 was at The Swedish Immigrations Office respectively 9 within The Social Insurance Agency. First of all the Lean specialist at both organizations was interviewed. They respectively then put us in contact with the following people need. In order to increase validity in our research our stated requirements was to drive data from sources of different hierarchical level as visualized in images below.

## Interviewed people the Swedish Immigration Office



## Interviewed people the Social Insurance Agency



## - **Appendix C - interview questions**

### **Lean**

- What is Lean for you?
- How long have you been working with Lean?
- What was the process like before?
- What is the process like today?
- How successful do you feel that the implementation of Lean has been?
- How is it successful / not successful?
- Are there any bottlenecks in the process?
- What were the success factors with Lean?
- What have the challenges been with Lean?

### **Customers**

- Who are the customers?
- Dose everyone have the same view of who the customers are?
- How do you define other stakeholders and who are those?

### **Value**

- What is customer value?
- How have you defined value in your process?
- Have you conducted any research about what your customers value?
- Are there any additional indirect customer values?
- How are the other stakeholders' value defined?
- How are the other stakeholders' value taken into account?
- What have you done so far to increase customer value?

## **Waste**

- What is the most common type of waste that you have identified?
- Have you managed to get rid of this waste?
- What other types of wastes have you identified?

## **Stakeholders**

- What is the result of having several different stakeholders to take into account?
- Are there any conflicts between the different stakeholders definition of value?
- How have you dealt with these conflicting values between the different stakeholders?