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## Respect for People

*Developing alternative understandings and  
relationships to ethics, leadership, and culture in  
Lean implementations.*

MIA LJUNGBLOM



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### **Abstract**

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Successful Lean implementation is a combination of both technology and culture, using both key principles of continuous improvement (CI) and respect for people (RFP). However, many organizations fail to implement Lean and critical factors in this failure are leadership, culture and the lack of RFP. When CI and RFP permeate an organization, it is called real Lean, and when there is only a focus on CI it is called false Lean. Without Lean culture, where RFP plays the main role, Lean becomes an add-on tool.

The purpose of this thesis is twofold. The first part of the purpose is to develop alternative understandings of RFP and relationships to ethics, leadership and culture in Lean implementations. The second part is to suggest a normative framework helping leaders to achieve real Lean.

The purpose is operationalized into the following research questions: - What understandings of RFP can enable Lean implementations? - What understandings of ethics, leadership and culture can enable Lean implementations? - How can these understandings form a normative framework for Lean leaders?

The study is a qualitative, exploratory and descriptive case study with an abductive approach. The data have been collected by documents, interviews, questionnaires, and participant observations. Content and discourse analysis are used together with pattern-matching to analyse the data.

The study shows that it is important to understand the differences in culture (national/organizational) prior to Lean implementation and to conduct an organizational analysis to find similarities and differences between Lean and organizational values. The study also finds that RFP is composed of elements in different cultural levels. The elements identified are ethics, leadership and culture, each of which has invisible elements, often linked to Japanese religions and traditions, that need to be visualized and discussed. Previous research has presented various frameworks and models exist but these are more know-what than know-how. Organizations need more know-how to create real Lean where RFP can be seen as the 'how'.

I developed a leadership model called Developmental Lean leadership (DLL) that aims to find leadership that supports both employee and organizational development and can meet the needs of a Lean leader, which are to act as a role model and support the development towards a real Lean culture.

I also developed a normative framework for Lean leaders called the RFP house, which it is hoped will help Lean leaders achieve real Lean in their organizations during implementations.

*Keywords:* Culture, Developmental Leadership, Ethics, Leadership, Lean Management, Real Lean, Respect, Respect for people, Virtue ethics

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Yes, I am here ... finally.

If someone had told me 20 years ago, when I started as a consultant at Gotland University, that I would one day be defending my thesis, I would have laughed out loud. Conducting research was not on my map at all. But one thing led to another, and the person who initiated the research journey was my colleague Raine Isaksson. He persuaded me to write a research paper for a quality conference, and I enjoyed it ... sometimes. Thank you, Raine.

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Finally, I would also like to thank my partner Jörgen and my daughter Emma, who for so many years have put up with my constant talk about Lean and respect for people. I love you!

Mia Ljungblom  
Visby, June 2022



# List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.

- I. Ljungblom, M. (2012). A comparative study between Developmental leadership and Lean leadership – similarities and differences. *Management and Production Engineering Review*, 3(4), 45–68. doi:10.2478/v10270-012-0034-9
- II. Ljungblom, M. (2014). Ethics and Lean management – a paradox? *International Journal of Quality and Service Science*, 6(2/3), 191–202. doi:10.1108/IJQSS-02-2014-0009
- III. Ljungblom, M. & Lennerfors T. T. (2018). Virtues and Vices in Project Management Ethics: An empirical Investigation of Project Manager and Project Management students. *Project Management Journal*, 49(3), 5–16. doi:10.1177/8756970586
- IV. Ljungblom, M. & Lennerfors T. T. (2021). The Lean principle respect for people as respect for craftsmanship. *International Journal of Lean Six Sigma*, 12(6), 1209–1230. doi:10.1108/IJLSS-06-2020-0085
- V. Ljungblom, M., Fredriksson, M. & Lennerfors T. T. (2022). The Impact of the Lean Principle Respect for People – A Case Study of a Swedish Supermarket. *International Journal of Lean Six Sigma*. The paper was submitted in February 2022.

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# Abbreviations

CI	Continuous improvement
DL	Developmental leadership
DLL	Developmental Lean leadership
IG	Implementation group
JIT	Just-in-time
LLB	Lean leadership behaviours
PM	Project manager
RFC	Respect for craftsmanship
RFP	Respect for people
TPS	Toyota Production System
TQM	Total Quality Management



# 1 Introduction

*This chapter provides the background to the research presented in this thesis, as well as the problem discussion, purpose and research questions of the thesis and the overall structure of the work.*

## 1.1 Background

There is a growing pressure on organizations to become more efficient and successful (Grigg et al., 2020). In other words, organizations need to be more productive and cut costs (Netland, 2016). To do this, organizations adopt different quality concepts and methodologies, such as Lean management (Fredriksson & Isaksson, 2018).

Lean originated from Toyota and its production model Toyota Production System (TPS) (Liker & Convis, 2012) and has been implemented in Western industry since the 1980s to reduce waste and lead time and to increase customer efficiency and value for the customer (Chiarini & Brunetti, 2019). Lean is no longer exclusive to the automotive industry; it is widely used in other industries in both the private and public sectors (Erthal & Marques, 2018; Taherimashhadi & Ribas, 2018).

For more than 50 years Toyota has been profitable and has become one of the largest motor vehicle manufacturer in the world, and a guide to excellence for many organizations (Liker & Convis, 2012). The key to Toyota's success seems to be the TPS. Ohno Taiichi (former executive vice president of Toyota Motor Corporation) explained that the basis of the TPS is the absolute elimination of waste, and the two pillars<sup>1</sup> needed to support the system are *Just-in-Time* (JIT) and *Jidoka* (autonomation, or automation with a human touch) (Ohno, 1988).

Since the transformation from TPS to the Toyota Way in 2001, these two key principles were developed and became *continuous improvement* (CI) and *respect for people* (RFP) (Chiarani et al., 2018). The focus remained on waste: identifying where waste is located and deploying specific tools to reduce the

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<sup>1</sup> Pillars is another word for key principles.

waste (Connor & Cormican, 2021). To do this, there is a need for a Lean culture of collaboration and employee empowerment at all levels. Such a Lean culture is built on an employee-driven philosophy designed as an integrated social-technical system to find and achieve progress while reducing waste (Chiarini et al., 2018; Connor & Cormican, 2021; Pakdil & Leonard, 2017).

Companies and organizations around the world have been eager to replicate the successes that Toyota achieved from its Lean programs, which led to the publication of practitioner-oriented literature, outlining the major concepts and tools (Chaple et al., 2021; Chiarini & Brunetti, 2019; Erthal & Marques, 2018; Liker & Convis, 2012).

Bevilacqua et al. (2015), and Netland (2016) claimed that there is no single correct recipe (combination of factors) for a successful Lean implementation, but other researchers (e.g., Chaple et al., 2021; Chiarini & Brunetti, 2019; Erthal & Marques, 2018) have argued the opposite, that Lean success depends on a combination of organizational, market and country factors (Chaple et al., 2021).

These factors are often identified as barriers (or success factors) to Lean implementation and may include a lack of leadership, culture, Lean strategies, education, team building and ability to implement change (Amaro et al., 2020; Chiarini & Brunetti, 2019; Erthal & Marques, 2018). Studies have shown that the presence of barriers is not limited to automobile industry, but also occurs in other sectors, such as manufacturing (Jadhav et al., 2014), healthcare (Wilson et al., 2018), education (Amaro et al., 2020), and retail (Noda, 2015).

A successful Lean implementation is a combination of methods, tools and culture (Chiarini & Brunetti, 2019). Schwagerman and Ulmer (2013) argued that Lean leads to a successful culture with behavioural patterns that have a significant impact on company management and leadership of employees.

Many organizations have failed to implement Lean (Chaple et al., 2021; Dombrowski & Mielke, 2013). An international survey found that 80 per cent of participating organizations claimed to use Lean principles, but only half actually finished the implementation and improved (Dombrowski & Mielke, 2013). Grigg et al. (2020) and Schwagerman and Ulmer (2013) described the challenge to keep the Lean implementation ongoing and not revert to operating as they had before. Other studies (e.g., Belhadi et al., 2019; Cochran et al., 2017; Loh & Yusof, 2020) have shown that Lean implementations did not meet the initial expectations or did not last very long. Studies have shown that fewer than 10 per cent of all Lean implementations were sustained three years

after they were implemented (Belhadi et al., 2019; Cochran et al., 2017). According to Cooper (2008), it is common for organizations in which Lean is not fully implemented to express frustration when they experience some short-term gains, but never realize the sustained benefits they envisioned.

Many researchers (e.g., Dahlggaard et al., 2011; Dombrowski & Mielke, 2013; Hines et al., 2004; Sloan, 2017) have argued that the reason for the failure (or stagnation) could be the focus on tools and techniques used for waste reduction, and that the organization might fail to create a *real* Lean organization. Emiliani (2010) stated that if the two key principles permeate the organization, it becomes *real* Lean. In *fake Lean* (the opposite of *real* Lean), there is an overemphasis on CI. Fake Lean means that Lean is still an *add-on* tool, where the managerial culture and the employees' engagement are missing (Kusy et al., 2015). Taherimashhadi and Ribas (2018) echoed this problem, stating that many organizations focus on tools without considering less visible areas, including cultural aspects. According to Kusy et al. (2015), without the proper Lean culture, in which RFP plays a leading role, Lean tools are just tools.

Several studies have argued that *fake Lean*, which is an overemphasis on CI and a lack of RFP, is the greatest risk or barrier for unsuccessful implementations of Lean (e.g., Coetzee, van Dyk et al., 2019; Emiliani, 2010; Halling & Renström, 2014; Sloan, 2017; Yadav et al., 2017). Chiarini and Brunetti (2019) did not explicitly discuss the concept of fake Lean but stated that when Lean was introduced in Western countries, it came to be used in a way that can dehumanize the employees. Also, Hines et al. (2020) and Mehri (2006) showed the negative effect on the employee, sometimes naming it *the dark side of Lean* (Salentijn et al., 2021), which includes the exploitation of workers' health and well-being for the sake of efficiency.

Other elements of Lean have been highlighted and criticized (Hines et al., 2020; Salentijn et al., 2021) such as what Lean really means, the lack of a coherent theoretical foundation, as well as the transferability and sustainability of Lean. Jørgensen and Emmitt (2008) argued that researchers and practitioners alike have been misled by an overly optimistic literature, while Salentijn et al. (2021) criticized companies for using a fragmented tool-oriented approach.

Rother (2013) maintained that the tool-oriented approach (add-on thinking) depends on Western countries focusing on Toyota's visible methods and tools, which could be easily copied by competitors (cf., Foley & Zahner, 2009). The problem with this approach, Rother (2013) argued, resides in the fact that the visible side of Lean is built on invisible routines of thoughts and acts, and that Toyota's methods do not work without the link to Toyota's underlying logic (see Figure 1). The thoughts, routines, and acts that Rother (2013) described

are termed *human-related*, and are argued to be the heart of Toyota’s success (Bortolotti et al., 2015).

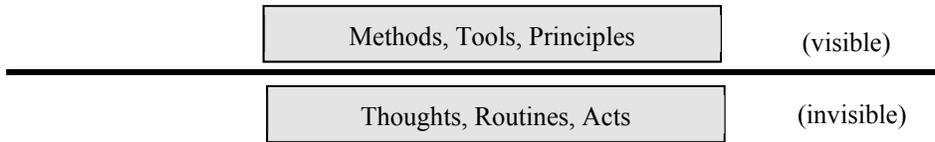


Figure 1: Toyota’s visible tools and methods are built on invisible thoughts, routines, and acts (Rother, 2013, p. 30).

Hines (2010) presented a similar view to Rother (2013) and exemplified the visible and invisible layers with an iceberg metaphor (see Figure 2). Like Rother’s model, the Sustainable Lean Iceberg Model (SLIM) distinguishes between the visible aspects of Lean implementation and the hidden enabling invisible elements in Lean, but Hines (2010) presented in greater detail what the invisible elements of Lean could consist of.

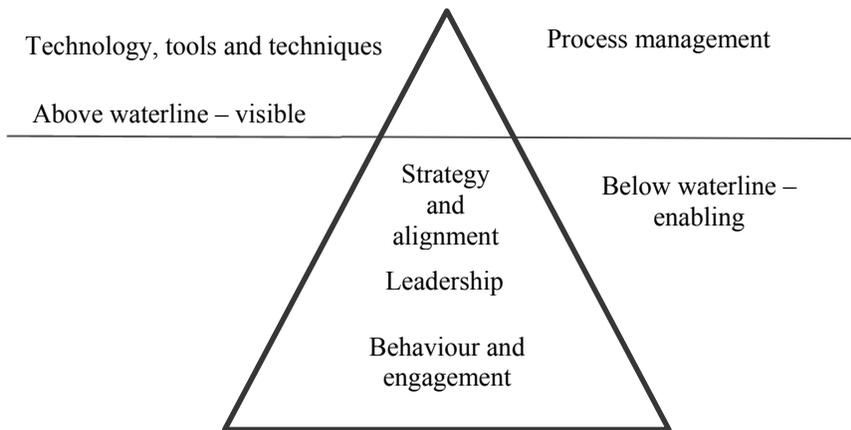


Figure 2: The Sustainable Lean Iceberg Model – SLIM (Hines, 2010, p. 58).

The SLIM model shows that all the visible features of a Lean implementation are above the waterline. According to Hines (2010), this means that organizations attempting to enhance performance commonly apply Lean tools, technology and techniques to improve, sustain and maintain business processes.

Below the waterline is the hidden, invisible enabling aspect of Lean. Hines (2010) referred to the ‘invisible’ as strategy and alignment, leadership, and behaviour and engagement, stating that examples of process management and the application of Lean tools can be seen in any Lean organization (the visible

side). Also, a visitor to a *real Lean* organization will still see process management and Lean tools. What the visitor will not see is all the effort that has been put in below the waterline for strategy and alignment, leadership, behaviours and engagement that sustain the Lean implementation and make it *real*.

Grigg et al. (2020) argued that it is generally recognized that the importance of underlying organizational values specified in leadership, culture and behaviour is crucial in a Lean implementation. According to Schein (2017), these invisible elements are some of the building blocks that form the organizational culture.

## 1.2 Problem Discussion

Based on the existing knowledge about the success of Toyota, it is clear that while fundamental knowledge of tools, techniques, technology, and basic concepts is very important, an effective social environment in which people feel empowered and motivated is critical (Yadav et al., 2017). In other words, both CI and RFP in order to create the important Lean culture (Liker, 2004; Schwagerman & Ulmer, 2013; Traylor, 2011), to be successful and to achieve *real Lean* (Emiliani, 2010).

Previous studies (e.g., Belhadi et al., 2019; Dombrowski & Mielke, 2013) have shown that the results that organizations want to achieve are still lacking. There are several possible reasons for this, including the continuous research focus on the key principle CI (Dombrowski & Mielke, 2013; Sloan, 2017), or the failure of organizations that implement Lean to use the research on RFP or use it correctly (Hines et al., 2020).

In this thesis, I propose that researchers might not be studying Lean from new perspectives and horizons. A way to achieve different results than before could be to discuss Lean from alternative viewpoints. Problematizing data with similar starting points is likely to produce similar results. One way to get other results or other discussions that can advance research could be to introduce new models and theories from outside the Lean or quality-related area, which I will do in this thesis. Such alternative understandings can shed new light on the RFP and other related concepts and create starting points for research efforts for continuing to explore the invisible sides of Lean. These new theories or models can also be useful for dealing with the invisible elements of a Lean implementation, by providing alternative viewpoints and new concepts to discuss in practical settings. This thesis concerns four interrelated concepts: RFP, ethics, leadership, and culture.

The importance of RFP has been extensively investigated and the lack of RFP is not a new phenomenon; it was mentioned in the early phases of Lean (Emiliani, 2008) and researchers (e.g., Loyd et al., 2020; Vanichchinchai, 2021) still emphasize the lack of RFP and the overemphasis on CI. However, RFP has only been vaguely explained in previous research, and there is still a lack of research on how RFP is implemented and how the key principle is integrated into the daily work to achieve *real* Lean. The present thesis sets out to explore RFP at a deeper level.

To achieve *real* Lean, where RFP plays the leading role, the *culture* is crucial (Kusy et al., 2015) and even fundamental (Liker, 2004). In a 2009 survey, 20 per cent of the 515 respondents recognized changing the organizational culture as the biggest challenge that companies face while trying to implement Lean (Traylor, 2011). Lean culture still seems to be a poorly understood concept that has not been investigated well, and therefore requires more work (Amaro et al., 2020). Furthermore, Taherimashhadi and Ribas (2018) argued that, while implementing Lean in an organization, it is necessary to consider both *organizational and national culture*; I will address this point in this thesis.

While transforming an organization to adopt a Lean culture, the *leadership* plays a key role for a sustainable and integrated implementation (Albliwi et al., 2014; Connor & Cormican, 2021; Grigg et al., 2020; Ingelsson et al., 2020). Several studies (e.g., Albliwi et al., 2014; Dahlggaard et al., 2011; Grigg et al., 2020; Ingelsson et al., 2020) have identified leadership as one of the most important success factor in Lean implementations, and some have even argued that it is the most important factor (Dombrowski & Mielke, 2013). While much has been written about Lean leadership (e.g., Dombrowski & Mielke, 2013; Emiliani, 2008; Ingelsson et al., 2020; Liker & Convis, 2012), most of the research has considered the visible elements (methods, tools, principles) in a Lean implementation (Hines, 2010; Rother, 2013). Previous research has focused on *what* is needed, not *how to actually do* what is needed to implement or sustain the implementation of Lean. There seems to be a lack of research dealing with leadership related to the invisible elements of Lean (Hines, 2010). In this thesis, I will revisit Lean leadership and whether it can benefit from being integrated with other leadership models.

Behaviour – one of the invisible elements in Hines’ (2010) SLIM model and in Rother’s (2013) model called acts<sup>2</sup> – is based on values (such as trust, respect, excellence) grounded in social, psychological, and biological needs (Långstedt & Manninen, 2021; Philipson, 2011). The focus on value-based behaviour or actions has been studied in the field of ethics. Ethical choices are fundamental to humans in our daily lives: how we decide, motivate and respect each other. An example of an ethical choice might be a manager who decides whether or not to implement Lean in his/her organization. That and all other management decisions involve ethical issues and systematizing, defending, and recommending concepts of right and wrong conduct (Långstedt & Manninen, 2021). However, ethics is not seen as an important theory in Lean research, as is clear from the low number of publications addressing the link between ethics. Because of its relevance in terms of providing concepts for understanding values and their relation to acts and behaviour, as well as because of its untapped potential, ethics can be a new concept that can be introduced in Lean implementation and in Lean research. I will explore this point in this thesis.

The fact that the research on Lean is mainly about the key principle CI and its visible tools aroused my interest in exploring and describing the invisible side of Lean, in particular the key principle RFP (see Figure 3).

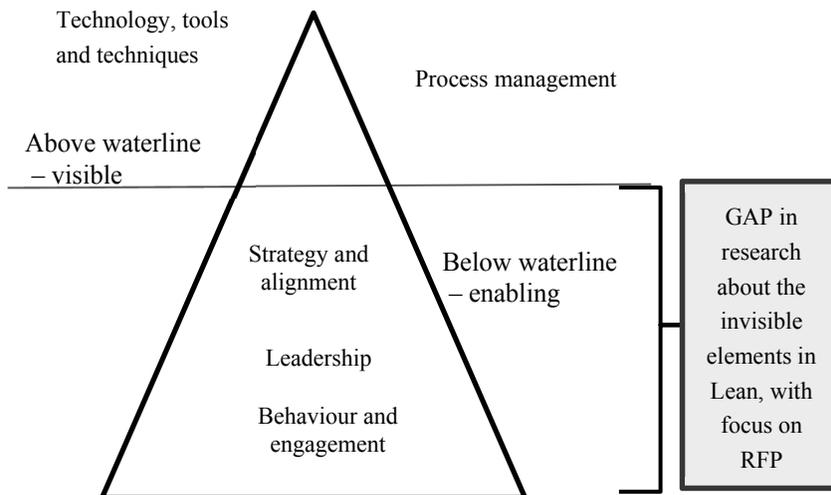


Figure 3: The gap in research; the invisible elements in Lean.

<sup>2</sup> The words *act* and *behaviour* are both used in this thesis. In ethics, for example, it is important to separate the meaning and intention of the words. I have not taken that approach, and in this thesis the two words are synonymous.

## 1.3 Purpose

The purpose of this thesis is twofold. The first part is to develop alternative understandings of RFP and relationships to ethics, leadership, and culture in Lean implementations. The second part is to suggest a normative framework that helps leaders achieve real Lean.

The purpose of this thesis is operationalized into the research questions outlined below.

## 1.4 Research Questions

RQ1: What understandings of RFP can enable Lean implementations?

RQ2: What understandings of ethics, leadership, and culture can enable Lean implementations?

RQ3: How can these understandings form a normative framework for Lean leaders?

## 1.5 Limitations

The thesis is situated in the research field of Lean, with a focus on the key principle respect for people (RFP). Theories and models from the fields of ethics, leadership and culture were used to better understand Lean, RFP and its invisible elements. There was no intention to describe the whole fields of ethics, leadership and culture.

In other words, I do not discuss the similarities and differences between Confucianism and Western virtue ethics, for example, as this is not a thesis about ethics. The thesis is about Lean and RFP, where ethics, and especially virtue ethics, could contribute to the development and perhaps greater understanding of Lean. A similar approach is used when discussing leadership and culture as well.

## 1.6 Thesis Structure

This thesis consists of seven chapters (see Figure 4). The first chapter provides an introduction to the work. The second and third chapters present a theoretical framework and the methodologies used in the study. Chapter 4 presents a summary of the appended papers is presented. Finally discussions, conclusions, and further research are presented in Chapters 5 and 6. In Chapter 7 it is a list of the references.

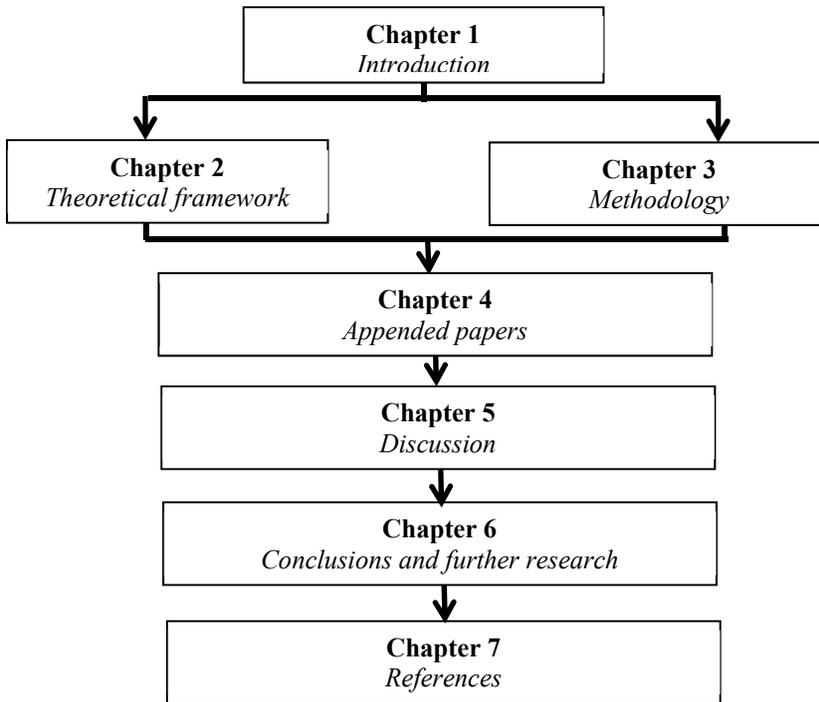


Figure 4: The structure of the thesis.

Figure 5 explains the connection among the purpose, research questions and the five different papers. The figure is a development of Hines' SLIM model.

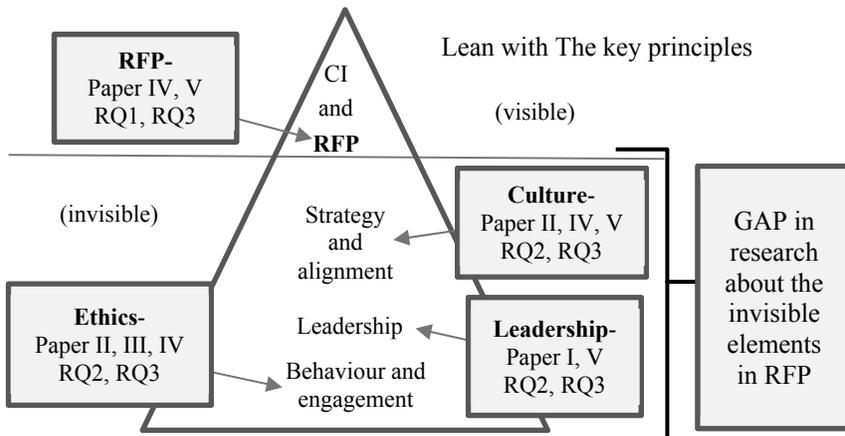


Figure 5: How the appended papers I–V relate to RFP, and the invisible elements in Lean.

It is also important to explain how the different papers are used in the research questions.

**RQ1: What understandings of RFP can enable Lean implementations?**

Papers IV and V play the main role in addressing this question. In Paper IV, I explore the concept RFP surveying its origin, definitions, meanings and the connection to craftsmanship. Paper V is a case study of an organization that is trying to implement Lean and where RFP clearly appears to be a critical factor.

**RQ2: What understandings of ethics, leadership, and culture can enable Lean implementations?**

Several papers are involved in addressing this research question:

*Ethics:* Paper II highlights ethical codes for nurses in health organizations and compares these codes with Lean. Paper III studies project managers' actions from an ethical perspective. The ethical dimension in relation to craftsmanship is discussed in Paper IV.

*Leadership:* Paper I describes the two leadership models: developmental leadership and Lean leadership behaviours. Similarities and differences are highlighted and suggestions on how the different models can complement each other are presented. Paper V, leadership is highlighted in the empirical study.

*Culture:* Culture is discussed in Paper II, when health care organizations are compared theoretically with Lean culture. In Paper V, organizational culture is highlighted in the empirical study. Culture is also discussed in the exploration of RFP in Paper IV.

**RQ3: How can these understandings form a normative framework for Lean leaders?**

In the concluding question, Papers I–V are synthesised, and the normative framework is presented in the thesis.

## 2 Theoretical Framework

*This chapter contains a literature review that constitutes the theoretical framework for the thesis. The research questions form the basis for the selection of theories. A historical review of Lean's emergence is also provided. Sub-chapter 3.3 explains how the literature was selected.*

### 2.1 History of Toyota and its path to the Toyota Way, Lean and RFP

This sub-chapter provides a historical perspective on Toyota and the quality movement in Japan. Thereafter, a description of Toyota's development as an organization, and later, one of the two key principles in Lean, RFP, will be provided.

Several Japanese organizations are renowned for their proficiency in quality management (for example, TQM and Lean), and it is not incidental that Japan has a world leading position in quality (Dahlgaard-Park, 2011). These organizations have a certain pattern that can be seen through the entire history of Japan as a producing country.

According to Dahlgaard-Park (2011) Japan has followed the same structures over decades: learning, imitating and adopting knowledge. Japan's, perhaps pejorative, nickname *copyist* reflects this phenomenon. However, Dahlgaard-Park (2011) stated, "this nickname does not reflect all aspects of the phenomena, because the Japanese often exceed the level of copycats becoming the master" (p. 99). Lean is one concept that developed from this pattern.

In 1988, John Krafcik, a master's student at Massachusetts Institute of Technology (MIT), coined the term *Lean* (Chiarini et al., 2019; Holweg, 2007; Yadav et al., 2017). After improving and developing the Lean idea, MIT published the famous book entitled *The Machine that Changed the World* (Womack et al., 2007). This book introduced Lean thinking to the Western world, but the concept had been established in Japan much earlier.

The foundations of what would become the Toyota Motor Company were established in 1918, as a weaving plant, by the entrepreneur Sakichi Toyoda

(Holweg, 2007). At the plant, Sakichi developed a lot of quality improvements, the best known of which is the mechanism in the weaving machine that stopped the machine when something went wrong. Here, *Jidoka* was born (Holweg, 2007; Ohno, 1988; Toyota Global Site, 2020b). Sakichi also invented the *Five Whys* technique to find the real root cause of problems (Chiarini et al., 2018), but his best contribution to developing the organization was his philosophy and approach to the work, grounded in a burning belief in continuous improvements (Liker, 2004).

Sakichi developed the basic ideas of Ford's continuous assembly line and flow concepts, along with other ideas from American quality and manufacturing geniuses, such as Deming and Juran (Holweg, 2007; Ohno, 1988; Schwagerman & Ulmer, 2013; Yadav et al., 2017), but retained Japan's cultural hegemony (Wittrock, 2015). The person who arguably had the greatest influence on Japan in terms quality development was Ishikawa Kauro, professor at Tokyo University (Sörqvist & Bergendahl, 2021), but still the American way of producing cars and their quality system were copied and developed by Toyota (Holweg, 2007).

The view of quality has a long tradition in Japan and has been a major component of the foundation of Lean, according to Dahlgaard-Park (2011). Foley and Zahner (2009) agreed, stating: "the quality movement had its origins as a practitioner-led movement in Japan. What little academic involvement there was came primarily from engineers who had only modest familiarity with Western social science" (p. 63). In Table 1, Dahlgaard-Park (2011) compares Japanese and Western quality approaches.

**Table 1:** Differences between Japanese and Western approaches to quality management.

	<b>Japanese quality approach</b>	<b>Western quality approach</b>
Attitude 1	Long-term view	Short-term view
Attitude 2	Process-oriented	Result-oriented
Attitude 3	Step-by-step building	'Quick fix'
Attitude 4	Practical-oriented	Theoretical-oriented
Attitude 5	Non-critical and non-sceptical (‘Let’s learn and lets it make it work’ mood)	Critical and sceptical (‘I wonder whether It Works or not – it must be another fad’ mood)
Attitude 6	Experimental	Analytical
Perception of QM	Long-lasting approach	A fad-like temporal approach
Focus area	Building people, org. culture, and process (focus on enablers)	Measurements and results
Methods	Continuous training and education of people	Temporal and sectional training and education
Approach direction	Top-down, middle-up-down, and bottom-up (multiple directions)	Top-down (single direction)
Process	Collective and systematic approach	Fragmented/unsystematic approach
Evaluation criteria	Gradual process improvement for better result in the long term	Quick profit
QM started	Late 1940s	Late 1980s
Movement ten- dency	Humanization and commonality	Mechanization and specialization

*Note:* Source: Dahlggaard-Park (2011, p. 513). QM=quality management.

The truck and car production at Toyota started in 1935. In 1937, Sakichi's son Toyoda Kiichiro formed the Toyota Motor Company with his father's philosophy and leadership as a basis (Holweg, 2007; Ohno, 1988), but changing and developing the processes that needed to be changed. In 1943, the same time as Ohno Taiichi (the former executive vice president of Toyota Motor Corporation) joined the automobile business after the weaving and spinning business had been dissolved (Holweg, 2007), Toyota changed its focus and started producing automobiles.

The change of focus was a consequence of the financial crisis era after World War II (Ohno, 1988). While many other Japanese manufacturers started to produce inexpensive goods in an attempt to survive the recession, Toyota did not. The Toyota management was convinced of the need to produce high-quality goods, in their case automobiles, despite economic difficulties. Toyota searched for new and better ways to produce more with fewer resources and the TPS was developed with its two key principles *Jidoka* (Autonomation, or automation with a human touch) and *Just-in-Time* (JIT) (see Table 2) (Ohno, 1988).

**Table 2:**  
Description of the key principles of TPS.

MODEL	KEY PRINCIPLES and connecting principles	
Toyota Production System	<i>Jidoka</i>	<ul style="list-style-type: none"> <li>• Stopping the line</li> <li>• Teamwork</li> <li>• Five Whys</li> </ul>
	<i>JIT</i>	<ul style="list-style-type: none"> <li>• Takt-time and continuous flow</li> <li>• Kanban</li> <li>• Waste recognition and elimination</li> </ul>

*Note:* Based on Ohno (1988).

At the time, there was no documentation of those key principles. They were implicit (Liker, 2004) and deeply rooted in the Toyota culture (Chiarini et al., 2018). Lean evolved naturally out of the workings of Toyota over five decades and Toyota's workers were often unable to articulate what they really did (Taherimashhadi & Ribas, 2018). In one of the first scientific papers on the topic, four Toyota managers described TPS as being based on two basic concepts, namely *cost reduction through the elimination of waste* and *full utilization of workers' capabilities* (Sugimori et al., 1977).

During the 1980s and 1990s, TPS began to spread outside Japan (Holweg 2007) and Toyota expanded its operations throughout the world (Liker &

Hoseus, 2008). Toyota demonstrated how TPS could be implemented in a European and American socio-cultural contexts. Toyota encountered cultural challenges and Toyota management began to consider what made its organization unique (Liker & Convis, 2018).

The cultural differences between Japanese and Western employees and their concept of work had been pointed out previously. In the 1970s, four Japanese Toyota managers deemed that the Japanese have characteristics such as group consciousness, a sense of equality, a desire to improve and centring their daily living on work and diligence, and that these characteristics are, broadly speaking, different from people in the West (Sugimori et al., 1977). Ohno (1988) also described the differences between Japan and the West in terms of tackling teamwork problems and the like, and explained that the Japanese smoothness in working with TPS was dependent on Japan’s history and culture.

The challenge of how to spread this unique blend of Toyota culture and Japanese culture to different cultures was raised (Holweg, 2007). Toyota made its guiding, or key, principles visible, and documented and published them internally and externally in 2001 (Toyota Global Site, 2020c); thus, the *Toyota Way 2001* entered the scene.

The *Toyota Way* (often called Lean) can be considered an evolution of TPS (Chiarini et al., 2018). With the *Toyota Way*, Toyota introduced its improved key principles and methods in written form: *continuous improvement* (CI) and *respect for people* (RFP) (see Table 3).

**Table 3:**  
*Description of the key principles of the Toyota Way 2001.*

MODEL	KEY PRINCIPLES and connecting principles	
The Toyota Way 2001	<i>CI</i>	<ul style="list-style-type: none"> <li>• Challenge</li> <li>• <i>Kaizen</i></li> <li>• <i>Genchi Genbutsu</i></li> </ul>
	<i>RFP</i>	<ul style="list-style-type: none"> <li>• Respect</li> <li>• Teamwork</li> </ul>

*Note:* Based on Chiarini et al. (2018).

The *Toyota Way* has been visualized as a house (see Figure 6), which was initially introduced as a model in one of Toyota’s internal training documents (Liker & Hoseus, 2008). The model demonstrates that the ultimate goal is to reach the culture of the *Toyota Way* (the roof) using the two key principles as pillars, and the five interconnected principles as the foundation of the house.

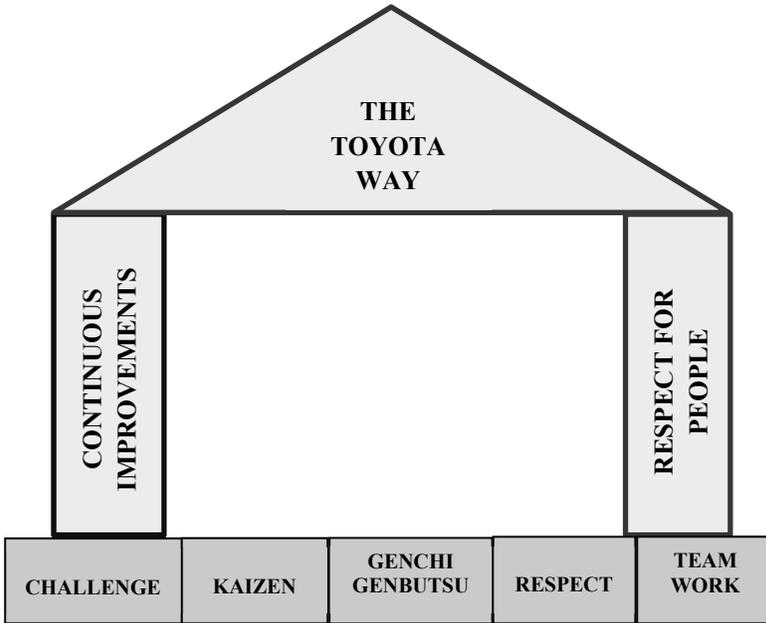


Figure 6: The Toyota Way house (Liker & Hoseus, 2008, p. xxviii).

Over the years, the Toyota Way house has been developed, and the Toyota Way was presented as per the model in Figure 7 at the Toyota Global Site (2020c).

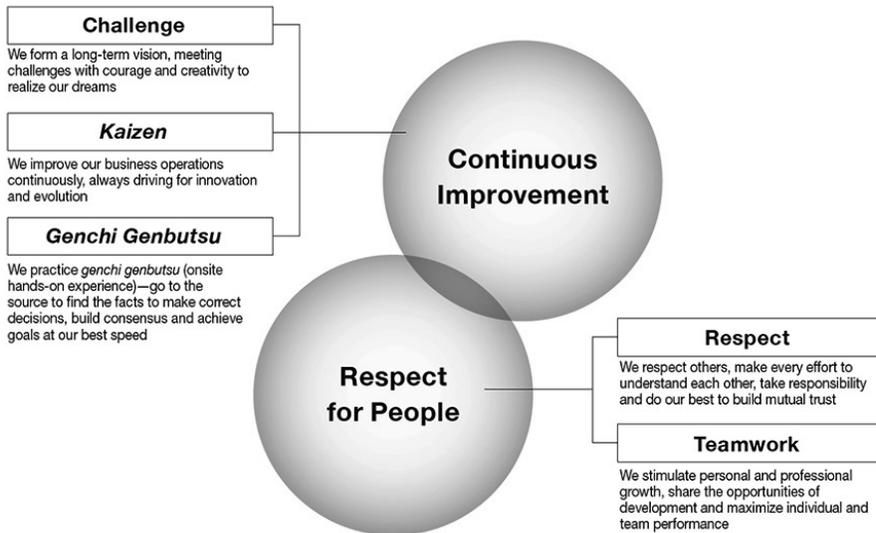


Figure 7: The guiding principles in the Toyota Way 2001 (Toyota Global Site, 2020c).

*CI*, one of the two key principles, is supported by three principles: *Challenge*, *Kaizen* and *Genchi Genbutsu*. The first principle, *Challenge* (as seen in Figure 7) is used to create a long-term vision, meeting challenges with courage and creativity, but also to see and respect people's competence and provide them with new tasks and problems that will challenge their abilities (Coetzee, van Dyk et al., 2019; Liker & Hoseus, 2008). The second principle, *Kaizen*, a Japanese word for CI that indicates the deep desire to improve to ultimate perfection, has been synonymous with Lean and TPS for many practitioners (Chiarini et al., 2018). The third principle, *Genchi Genbutsu*, was one of the methods Ohno (1988) introduced in TPS, but it first became visible in the Toyota Way and is described as: "go to the source to find the facts to take correct decisions, build consensus and achieve goals at our best speed" (see Figure 7).

*RFP*, the other key principle in the Toyota Way, is supported by two principles: *teamwork* and *respect*. *Teamwork* can be correlated with the original teamwork fostered by Ohno (1988), while *respect* is described in the Toyota Way as: "we respect others, make every effort to understand each other, take reasonability and do our best to build mutual trust" (Toyota Global Site, 2020c).

According to Toyota (Global Site, 2020c) respect is the basis of relationships with colleagues and with others, and it is important that everyone is respected for what they contribute and for who they are, which includes everyone's ideas and cultural personal beliefs. At Toyota, respect within teamwork goes beyond many organizations' interpretation of respect (Wilson et al., 2018). It represents a deep organizational alignment to develop the independent improvement capability of operational staff with unique relationships between management and co-workers that influence leadership, communication and team dynamics.

The RFP principle relates to the behaviour and culture of the organization and was introduced when Toyota was clarifying Japanese behaviours to the West (Wilson et al., 2018). Even though RFP was first written and described by Toyota within the Toyota Way 2001, the way of acting towards people has been known since the start of the automobile company. Ohno (1988) stated when TPS was developed that it is not just a production system; it is a system with the most important objective to eliminate waste together with the equally important *respect for humanity*. Ohno's description of the TPS, and the first instance of the human part of TPS in literature, occurred in 1977 in an article by Sugimori et al. (Sloan, 2017).

Researchers around the world, such as Womack and Jones (2003) and Liker (2004), have studied and developed Toyota's concept in different models. They operationalized the two key principles CI and RFP into specified principles to use in the organization to reduce waste and add value (see Figure 8). The product value stream, which stems from Womack and Jones (2003), describes a five-step process to improve organizations and achieve improved results and the Toyota Way (Liker, 2004) increased the two key principles into 14 principles.

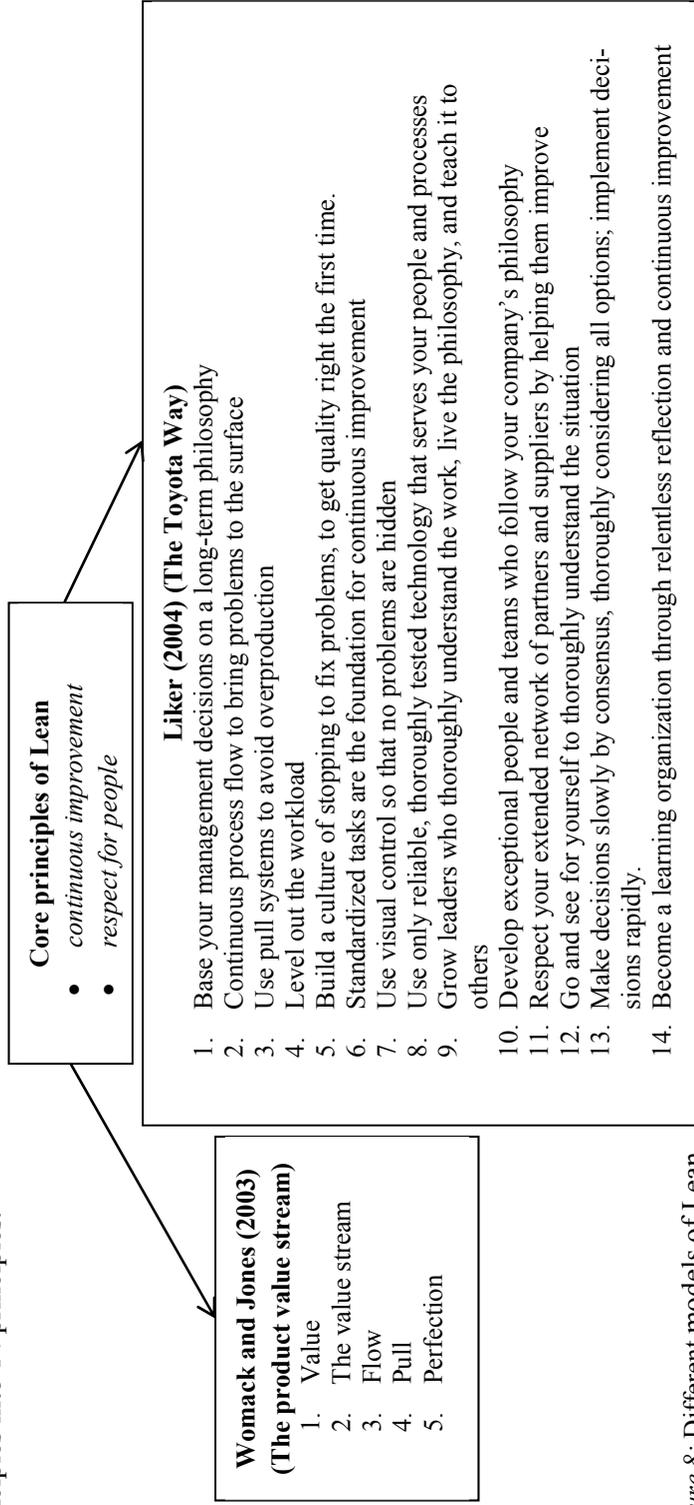


Figure 8: Different models of Lean.

Wittrock (2015) described Lean's key characteristics as follows: long-term orientation, banish waste and serving society, continuous improvement through practical knowledge, perfection through standardization, and creating flow and harmony in your efforts. Wittrock's (2015) research is special because it linked Japan's religions and philosophical approaches with Lean.

CI, which is built on methods and tools, often takes over in implementation because the methods and tools are visible and easy to grasp, according to Rother (2013). RFP, with its routines and acts, can be harder to understand and also be seen as less visible (see Figure 1). Furthermore, according to Coetzee, van Dyk et al. (2019), there is no certain definition of RFP, and researchers of Lean use different definitions.

Rother (2013) stated that it seems to be hard for the employees to discuss and explain the invisible elements with its unique thoughts and routines. It seems to be the normal way of work, and within the Toyota culture Toyota's methods do not work without the link to Toyota's underlying logic. Hines (2010) presented a similar view as Rother (2013), but exemplified it with an iceberg metaphor (see Figure 2).

Like Rother's (2013) model, the Sustainable Lean Iceberg Model (SLIM) distinguishes between the visible aspects of Lean implementation and the hidden enabling human-related factors in Lean. The critical importance of underlying organizational values specified in leadership, culture and behaviour is widely acknowledged, according to Grigg et al. (2020). Without the proper Lean culture, in which RFP plays the lead role, Lean tools are just tools (Bäckström & Ingelsson, 2016) and Lean can be seen as an *add-on* tool, where the managerial culture and the employees engagement are missing (Kusy et al., 2015).

Sartal et al. (2018) argued that Toyota's form of respect is based on practical rather than moral grounds, which increases employee engagement, volunteerism and capacity. However, according to Emiliani (2008), RFP involves respect for more than just employees, including all stakeholders, employees, suppliers, customers, investors, communities, and competitors, and hence humanity, and people, is the basis for all success. Dibia and Onuh (2010) argued that employees play a central role in socio-technical systems that are considered the most important key to Lean transformation. They claimed that Lean is an interlocking set of three underlying elements – philosophical underpinnings, managerial culture and technical tools – a triangle in which human development is at the centre.

## 2.2 Ethics, Values and Morality

Values, described in moral philosophy, form a large part of our everyday lives regardless of what we do, because a value is something that indicates what an individual or group considers to be worth striving for (Philipson, 2011). Values are grounded in social, psychological, and biological needs and correspond to the needs of a society to organize (Långstedt & Manninen, 2021). Furthermore, a value must be able to refer to, among other things, actions, events, situations, conditions, persons or objects (Philipson, 2011).

To act on the basis of values is to behave ethically (Philipson, 2011) or morally (Francisco, 2010). According to Philipson (2011), ethics presupposes clear values, without which it is not possible to distinguish between what is right or wrong, good or evil. Therefore, behaving ethically/morally, whether it concerns individuals or organizations, means that actions are judged on the basis of whether they can be considered to be realizing or counteracting something that is valuable. Ethics involves systematizing, defending, and recommending concepts of right and wrong conduct and seeks to resolve questions dealing with human morality.

According to Rachels and Rachels (2015), morality is the effort to guide oneself and one's behaviour through the best rational reasons while giving equal weight to the interests of each individual affected. What is morally right and morally wrong is related to the existing culture in an organization (Francisco, 2010), and different cultures have different ethical or moral codes (Rachels & Rachels, 2015).

To understand ethics, we also need to understand that there are three main ethical approaches, different paths, ways or opportunities to make ethical decisions (Philipson, 2004). These three approaches are consequentialism, deontology and virtue ethics and they constitute normative ethical theory (Tännsjö, 2013).

An ethical decision is made when a person has to decide which of two (or more) comparable actions is most desirable or valuable (Rachels & Rachels, 2015). In such an assessment, one considers, among other things, the consequences (in the short and long term) that a certain action is expected to have and compares these with the consequences of an alternative action (determined by, for example, the amount of pleasure, the utility, or the number of satisfied preferences). Based on this comparison, the person makes a choice based on what seems to be the best action – a consequentialist choice. If the choice aims to maximize total benefit or happiness for as many as possible, it is based on the ethical theory of utilitarianism.

Deontology has a different approach from consequentialism (Philipson, 2004). Behaving dutifully means that there are certain behaviours that we have an obligation to perform or avoid, regardless of whether the consequences of the behaviour are good or bad. Examples could be always telling the truth or never breaking a promise. Deontology looks at the nature of the action itself and often prohibits classes of actions, such as lying and stealing. Therefore, deontology differs from a consequentialist perspective, where for example lying and stealing are not bad in themselves, but must be judged regarding the goodness of the consequences. A consequentialist might argue that a white lie can sometimes have positive consequences and therefore be ethically permitted.

In contrast to consequentialism and deontology, virtue ethics stresses the agent rather than the actions, and emphasizes the importance of developing a good character (Hursthouse, 1999). A character is embodied with moral beliefs, philosophies and theories (MacIntyre, 2013; Rachels & Rachels, 2015). As a human, you build your own character that helps you think ethically or morally, but the character is also a result of a social context and culture with its moral definitions (Philipson, 2004).

A culture can be a part of an organization or a country, and the characters in the culture can recognize its specified culture (Rachels & Rachels, 2015). Similarly to each character, the culture is not universal (MacIntyre, 2013). Every culture is specified and developed by values, rules, behaviours and history, and the characters are the moral representatives of the culture to which they belong (MacIntyre, 2013; Rachels & Rachels, 2015).

Good behaviour stems from good character, but such behaviour also contributes to creating good character (Rachels & Rachels, 2015). Repeated behaviour, the practice of virtues guided by reason, strengthens a person's character and plays an important role, along with education and self-learning.

In the virtue ethics tradition, moral education is important, where we learn how to be good within a community (MacIntyre 2013; Rachels & Rachels, 2015). Virtue ethics aims to provide an accurate view of moral experiences, as they are experienced by human actors, and can be seen as a part of a person's life and is less abstract than consequentialism and deontology (Rachels & Rachels, 2015). Virtue ethics does not aim to giving advice about how to behave in a particular situation (as deontology and consequentialism), but rather provides a view of how ethics could be understood as a processual, dynamic interaction between character and actions.

In the same way that a value-system is crucial for individuals, it is also central in organizations (Philipson, 2004; Rachels & Rachels, 2015). In order to be

able to collaborate in an organization on goals, and visions, for example, Philipson (2004) argued that everyone in the organization must have a common foundation to stand on. In order to have prerequisites for organizations to establish, it is important to have organizational (management ethics) or professional (professional ethics) value systems (often materialised as codes of conduct), where abstract values are expressed into more substantial and practical terms.

Management and professional ethics are forms of applied ethics that examine ethical principles and moral or ethical problems that arise in an organization and/or professional environment (Philipson, 2004). The difference between the two types of ethics are that management ethics are rules for a special organization, while professional ethics concern a professional society. Management and professional ethics or codes can be a base (the minimalistic ethics) for the right moral choices and behaviours at work.

Minimalistic ethics is one of two ways of tackling management/professional ethics, as explained by Philipson (2004). Minimalistic ethics is a way of avoiding doing wrong; in other words, how not to behave incorrectly. It is about doing (or not doing) acts because you have to; it is a *duty* or *obligation*. In an organization, it is necessary to construct a minimalistic ethics to avoid problems/scandals, liberate creativity and create job satisfaction.

The other form of ethics, presented by Philipson (2004), is *maximalistic ethics*, which is more an affirmative ethic, where the person becomes a role model rather than just doing their duty. These acts cannot be forced by the organization, like the minimalistic ones. Maximalistic ethics are a set of ideals/values that indicate the right way, like guiding stars. Following this view, the person *wants* to do good actions. Organizations need the maximalistic ethics to create a vision/set goal, motivate leaders/co-workers, promote the joy of work and increase the organization's credibility.

## 2.3 Culture

According to Erthal and Marques (2018), culture has, since the 1980s, increasingly been suggested as a key to successful Lean implementations, and has been the underlying force that guides managers and co-workers in implementing and sustaining Lean. Taherimashhadi and Ribas (2018) showed that different kinds of culture need to be considered when implementing Lean in an organization. *National culture* needs to be considered because Toyota and Lean originates from Japan, and *organizational culture* needs to be considered since Lean implementation is often to be implemented in an organization that is neither in based in Japan or in a Toyota plant elsewhere. Finally, according

to research in Lean, it is important to understand *Lean culture* (Amaro et al., 2020; Taherimashhadi & Ribas, 2018; Pakdil & Leonard, 2017).

Regarding culture, it seems important before embarking on the Lean implementation to create knowledge and understanding of the culture and values that exist in the organization in which the Lean implementation is to be carried out (Amaro et al., 2020; Taherimashhadi & Ribas, 2018); also, national and organizational culture both need to be considered. Amaro et al. (2020) argued that a culture diagnosis (Dyer in Amaro et al., 2020) is the first step when changing the culture in an organization. According to Dyer (Amaro et al., 2020), the first step is that, during a Lean implementation, an organization must first identify and solve its own challenges based on the organization's processes and unique factors. Taherimashhadi and Ribas (2018) and Pakdil and Leonard (2017) presented similar findings. If organizations analyse and diagnose their current organizational and societal culture before starting a Lean implementation, Lean practitioners can determine where there is a need for cultural transformation.

The organizational culture affects the success of implementing and sustaining Lean processes, and some studies consider it the key factor (e.g., Connor & Cormican, 2021; Pakdil & Leonard, 2015; Pakdil & Leonard, 2017). The organizational culture is affected by the national culture according to Erthal and Marques (2018). The process of implementing a Lean system into a traditional manufacturing environment is extremely challenging and a full cultural shift at all levels of the organization is needed (Amaro et al., 2020; Connor & Cormican, 2021).

### 2.3.1 The Lean Maturity Framework

Hines et al. (2020) argued that successful Lean implementation is a question of Lean maturity in the organization. The Lean implementation can be successful and sustained if the organization can improve through an evolutionary journey characterized as having three stages: (1) tool-based change, (2) system-based change, and (3) culture-based change.

According to Hines et al. (2020), tool-based change is a traditional tool-based approach to waste reduction where the Lean tools are chosen by chance rather than structure and experience. This approach is typical of an inexperienced organization when it comes to Lean. Despite the highly variable use of tools, improvements can be achieved in the organization in this first phase.

In the second phase, system-based change, the organization has matured and learned to handle the Lean tools in a better way. The tools are carefully selected in each situation and there are stated strategies for what to do, and the

system of CI begins to come into place. Finally, when the organization has developed even more and achieved more Lean maturity, the third phase (culture-based change) can be reached (Hines et al., 2020). In this phase, the Lean methods become more sophisticated, which is reflected in systems that develop leadership, behaviours and learning.

According to Hines et al. (2020), it may be easier for the organization to see what needs to be developed if it uses the maturity framework and creates an understanding that the Lean journey is lifelong. Creating a culture of improvement based on systems such as ensuring customised improvements, emphasising value-creating behaviours, and continuously training and developing people requires time, structure and commitment.

### 2.3.2 Three Levels of Culture

According to Schein (2017), culture can be analysed at three different levels, where the level corresponds to the degree to which the cultural phenomenon is visible to both members and observers of the culture. These three levels vary from the very concrete, obvious manifestations that can be seen and felt to the deeply embedded, unconscious, basic assumptions that are defined as the essence of the culture. Some even call it the culture's DNA (Liker, 2004; Schein, 2017). In between these layers are various adopted beliefs, values, norms, and rules of behaviour that the members of the culture use to describe the culture to themselves or others (Schein, 2017). Schein (2017) described the three major levels of culture as:

#### 1. **Artefacts**

- Visible and palpable structures and processes
- Observed behaviour
  - Difficult to decipher

#### 2. **Espoused beliefs and values**

- Ideals, goals, values, aspirations
- Ideologies
- Rationalizations
  - May or may not be congruent with behaviour and other artefacts

#### 3. **Basic underlying assumptions**

- Unconscious, taken-for-granted beliefs and values
  - Determine behaviour, perception, thought, and feeling (Schein, 2017, p. 18)

According to Schein (2017), the first layer – *artefacts* – is the phenomena that can be seen, heard and felt when one meets a new group in an unfamiliar culture, together with the group’s architecture consisting of the physical environment, language, technology and products, office layout, public documents, art, style (dress code, manners of address, emotional displays), myths and stories, published list of values, and observable rituals and ceremonies. Structural elements like charters, formal work descriptions, and organization charts also belong to the first level. Even though much is tangible and observable at the first level, it is still difficult to decipher. Observers can describe what they see and feel, but they cannot, from that alone, reconstruct what those observations mean to the given group.

If one participates in the group/culture long enough, the meanings of artefacts gradually become clearer and people try to explain why they do things in that way (Schein, 2017). However, to reach this level of understanding quicker, it is important to ask the group why they do what they do. The answers may get into Level 2, *espoused beliefs and values*.

The second level of culture, *espoused beliefs and values*, concerns how the different individuals’ own thoughts and values are gradually transformed (Schein, 2017), first into shared values or beliefs and ultimately into shared assumptions. Not all beliefs and values go through such a transformation; only those that continue to work reliably to solve the group’s problems will be transformed into assumptions.

The strategy, philosophy and organizational goals fall into Level 2. Certain beliefs and values are confirmed only by the shared social experience of a group and some cannot be shared (Schein, 2017). For example, religion and moral system cannot be forced, but if the members share the same religion and/or moral system they will reinforce each other and will be taken for granted (Level 3). If they not are shared, the group learns to handle the critical beliefs and values into non-discussible assumptions.

Espoused beliefs and values often leave large areas of behaviour unexplained (Schein, 2017). They leave us with a feeling of just understanding a small part of the culture and that there is much more to understand. To achieve a deeper understanding and to decipher patterns, we need to understand the third level: *taken-for-granted underlying assumptions*.

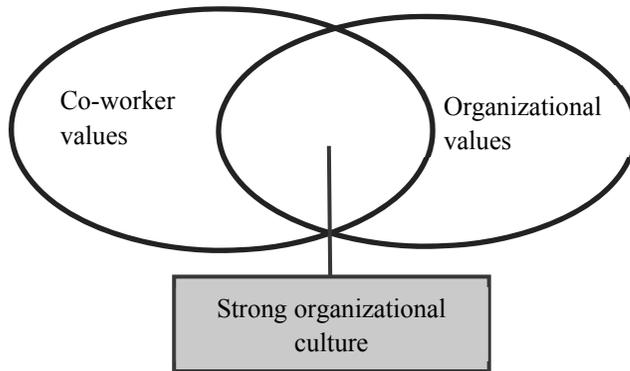
When solutions to problems work constantly, they come to be taken for granted (Schein, 2017). Schein (2017) defined a basic assumption as an assumption that has been so taken for granted that hardly any variation exists in the group or organization. This is a result of repeated success in transforming beliefs and values, as previously described.

Culture, as a set of basic assumptions, defines what is important, what things mean, how to react emotionally to what is going on, and what actions to take in different kind of situations (Schein, 2017). In Level 3, a mental map or a thought world is created, which gives its members a basic sense of identity and defines the values that provide self-esteem. This level often creates good results and a meaningful workplace, but there can also be negative effects if the basic assumptions are based on values that are not valuable to the members of the group or the organization. Schein's (2017) levels can be summarised by saying that the accumulated learning of the group is a pattern or system of beliefs, values, and behavioural norms that come to be taken for granted as basic assumptions.

### 2.3.3 Organizational Culture and Values

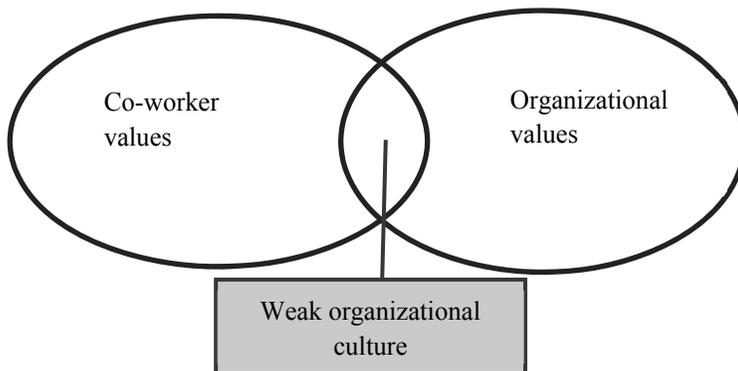
The most successful companies are those that successfully integrate employees' values with the values that are given in the company's tradition, business idea, visions and business goals (Philipson, 2011; Sloan, 2017), where the employees have been actively involved in influencing the culture and how work will be shaped in the future. Through an interaction with all employees in the company, they can create a basic community based on values. This community of values presupposes that employees learn to metaphorically 'sing in the same key' despite cultural, social and philosophical differences. There needs to be a connection or *consonance* (Philipson, 2011).

When *consonance* appears, the culture will be strong and creative (Philipson, 2011). The co-workers' visions are in harmony with the organizational visions, which creates good conditions for success. A strong organizational culture arises when co-workers' values and organizational values correspond. In Figure 9, the creative field in the middle is large and occupies a large part of the various categories of values, and is where a strong organizational culture can be found.



*Figure 9:* Strong organizational culture with a big creative field in the middle; strong value community, consonance (Philipson, 2011, p. 47).

There are two types of consonance: vertical and horizontal (Philipson, 2011). Vertical consonance is the correspondence between leaders and co-workers and horizontal consonance is the consonance between co-workers. When the differences in values are larger than the similarities (regardless of whether it concerns the vertical or horizontal) and co-workers and the values of the organization are not corresponding there is dissonance, as can be seen in Figure 10. The creative field in the middle is small, and perhaps even unrecognizable, as well as the energy that it creates in the organization. Co-worker's energy and ambitions are focused on processes other than those that manage the organization's values to meet goals and visions.



*Figure 10:* Weak organizational culture with a small field in the middle; low value community, dissonance (Philipson, 2011, p. 46).

The third concept in this music metaphor is *resonance* (Philipson, 2011). For an organization to be successful, it must create a culture based on values that also agree with what is seen as valuable in the environment (society, the world). When the organizational values resonate with stakeholders, there is resonance.

### 2.3.4 Culture at Toyota – Part of the National Culture

Schein (in Amaro et al., 2020) argued that Toyota had embedded a new management style, the Japanese style and, according to Amaro et al. (2020), even a new culture. The culture influences, for example, the organization, working methods, thinking, the way each one is seen in and outside the workplace, the processes, education and training. Lean culture, like all other cultures, is specified and developed by values, rules, acts and history and the people are the moral representatives of the culture to which they belong (MacIntyre, 2013).

As mentioned, Lean originates from Toyota, which comes from Japan and incorporates its culture and religion (Taherimashhadi & Ribas, 2018). A common Japanese phenomenon is the so-called *house codes* for companies, which in some cases resemble the Western idea of organizational values. The house codes often have religious content, and the practice originates from the codes of the samurai household, which imply discipline, rituals to ensure quality and to clean up, and that the employee should ideally internalize these codes as a path to enlightenment (Wittrock, 2015).

According to Erthal and Marques (2018), recent studies have supported the claim that cultural factors play a crucial role within the management field. Several researchers (e.g., Erthal & Marques, 2018; Oudhuis & Olsson, 2015; Pakdil & Leonard, 2017; Taherimashhadi & Ribas, 2018; Wangwacharakul et al., 2014) have demonstrated that there are cultural differences between Japan and Western countries that may affect the implementation of Lean (see Figure 11).

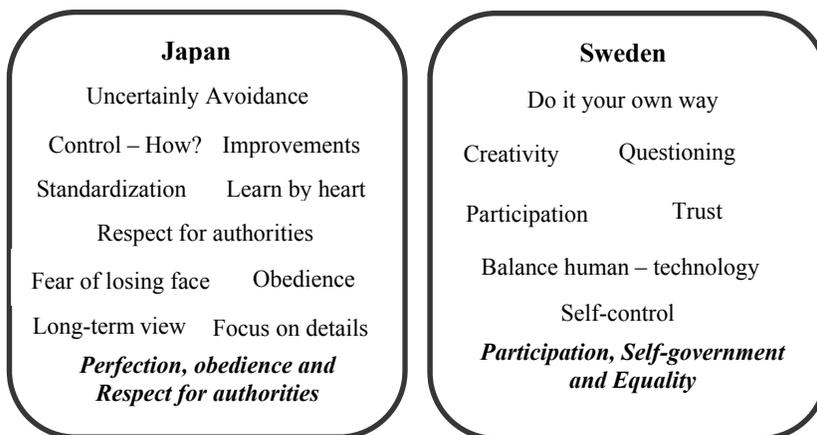


Figure 11: Differences in the Japanese and Swedish mindsets (Oudhuis & Olsson, 2015, p. 278).

Because many quality movements and Lean practices were developed in the cultural milieu of Japan, which is different from even other East Asian countries, these practices may not be effective in countries outside Japan because of different cultural values (Pakdil & Leonard, 2017). Nakane (in Erthal & Marques, 2018) argued that Japanese history and cultural factors are the basis of Japanese way of managing organizations and, therefore, that Japanese management could not be transferable to other environments.

The Japanese religion is a part of the Japanese culture (Taherimashhadi & Ribas, 2018). The religious and philosophical foundations of Japan consist of *Shintoism*, *Buddhism* and *Confucianism* (Chiarini et al., 2018; Rarick, 1994). These beliefs have greatly influenced society (Chiarini et al., 2018) and business practices (Rarick, 1994) in Japan.

The original religion of Japan is *Shintoism*, which means *way of the Gods* (Rarick, 1994). According to Shinto beliefs, the world began with a divine couple, a male and a female, who created Japan. The male in the story had the dominant position and was both the aggressor and the creative initiator in creating the beauty of the islands. This story has formed the relative position of men to woman, and a belief among the Japanese that their islands and people possess a very special quality. Shintoism can be said to be a worship of ancestors, spirits of nature and the family, with the latter being about, among other things, hope for the long-term survival of the family (Wittrock, 2015). Central to this is the concept of *kami* (God, spirit), which is seen as a blessed force in both living and inanimate things (Rarick, 1994).

According to Chiarini et al. (2018) and Rarick (1994), Buddhism in Japan is *Zen Buddhism*. The term *Zen* refers to the mediation process (Chiarini et al., 2018). Japanese Zen Buddhism is based on hard self-control, *zazen* meditation (sitting meditation), the personal reflection of daily life, especially concerning the benefit for others, and the context in which people live. The figure of Buddha as a hard worker represents the central figure of the Japanese Zen tradition, as well as the Buddha's truth of seeing the reality and seeking the mindful discipline to improve oneself over time.

Unlike Shintoism and Buddhism, which are considered to be religions, the influence of *Confucianism* has been less spiritual and more philosophical (Rarick, 1994). The proper development of the individual is a central concern in Confucianism (Meirovich & Romar, 2004). For Confucius, individuals exist in social settings where they (or a society) must act properly to be successful and in harmony. In Confucianism, virtues are intertwined in the ideal of the wise and exemplary person, and there are virtues that are used to create the best character; this is why some ethicists see similarities between Confucianism and Western virtue ethics (Tan, 2005).

As a foundation of a moral organization, Confucians must begin with individual growth and development by learning, knowledge and self-improvement (Rarick, 1994). The core concept of Confucianism is known as *the five relationships*, which are guidelines that dictate appropriate social interaction. These five relationships are listed below, including a modern description in an organizational context.

- Loyalty between king and subject (loyalty to one's business organization and superior)
- Closeness between father and son (adapted to manager-subordinate dyads)
- Distinction in duty between husband and wife (establishes appropriate roles for men and women)
- Obedience to orders from elders (establishes respect for age and seniority)
- Mutual trust between friends (emphasizes the importance of social harmony in groups)

These five relationships form the basis for social interaction in Japanese society, and are particularly responsible for the collective orientation that infuses that society (Rarick, 1994).

## 2.4 Leadership for Lean and Developmental Leadership

Significant empirical evidence from at least the past 30 years shows that leadership matters (Chiarini & Brunetti, 2019; Kahm & Ingelsson, 2019; Yukl, 2010) and there is wide consensus that leadership is important – or even essential – to achieve organizational success (Dahlgaard et al., 2011; Grigg et al., 2020; Ingelsson et al., 2020).

It is difficult, if not impossible, to find a single definition of leadership. According to Bass (1990), there are as many definitions of leadership as there are people who have tried to define it. However, most definitions of leadership seem to involve an intentional process to influence other people to guide, structure and facilitate activities and relationships in a group and/or an organization (Yukl, 2010).

Thompson (2008) maintained that a distinction is often made between leadership and management. Management is about function, planning, budgeting, evaluating and facilitating, while leadership is about relationships, selecting talent, motivating, coaching and building trust. From these perspectives, man-

agement could be seen to belong to an organizational perspective and leadership could be seen as grounded in a human perspective and more related to behaviour and psychology.

Liker and Hoseus (2008) also highlighted the differences between leaders and managers. Leaders have followers, and people follow the leader because they want to; managers have tasks to get done, deadlines, budget, and rules and they need to get the tasks done in the right way, on time, etc. Nevertheless, employees do not necessarily want to follow their manager. Traditional top-down management is a push system in which workers are pushed to follow the orders of the managers. The opposite of this form of leadership can be seen as a pull system, where the followers seek the leader's direction, and believe in the leader.

In Lean leadership literature, management is not separated from leadership. For example, Emiliani (2008) claimed that "Beliefs, behaviors, and competencies that demonstrate respect for people, motivate people, improve business conditions, minimize or eliminate organizational politics, ensure effective utilization of resources, and eliminate confusion and rework" (p. 33). The definition also includes critical aspects of leadership that other definitions have not included.

However, many researchers (e.g., Connor & Cormican, 2021; Ingelsson, et al., 2020; Mann, 2009; van Assen, 2018) have stated that developing Lean in an organization requires a mindset shift among leaders to build organizational cultures based on shared value for people and continuous improvement. The challenge is not to initiate a Lean methodology within organizations, but to keep it going over time (Grigg et al., 2020).

Researchers (e.g., Emiliani, 1998, 2008, 2014; Halling & Renström, 2014; Liker & Convis, 2012) have also stated the need for a different kind of leadership in organizations using Lean because of the specific needs of a Lean organization. With that in mind, the next sub-chapter describes Lean leadership.

### 2.4.1 Lean Leadership

While transforming an organization into a Lean workplace, the leadership plays a key role for the sustainable and integrated implementation of Lean (Grigg et al., 2020; Ingelsson et al., 2020). Several studies have stated that leadership is one of the most important success factors in Lean implementation (e.g., Connor & Cormican, 2021; Grigg et al., 2020; Ingelsson et al., 2020), while some, such as Dombrowski and Mielke (2013), have even argued that it is the most powerful factor. Albliwi et al. (2014) found that a lack of

top management attitude, commitment and involvement were the most critical failure factors in Lean implementations.

Lean leadership has not yet been clearly defined, and existing definitions point to divergent aspects. For instance, Mann (2009) defined a Lean leader as someone with a passion for Lean, together with disciplined adherence to process, project management orientation, ownership and effective relations with support groups.

## 2.4.2 Leading the Toyota Way – a Life-Long Journey

In the financial crisis era that followed World War II, many people in Japan lost their jobs (Ohno, 1988). To compensate for these losses and to save money, Toyoda Kiichiro resigned from the Toyota Motor Company. Kiichiro's resignation from the company is an act that is still talked about in the organization. Toyota's philosophy is to override personnel needs in favour of what is best for the company in the long term, and to take responsibility for problems (Liker, 2004); this concept is also fundamental for the Toyota leadership (Liker & Convis, 2012).

The way Toyota leads and manages its employees is at the heart of the company's success, and employees and management played a critical role in creating an effective work culture with an environment of trust and respect (Yadav et al., 2017). Akio Toyoda, president of Toyota Motor Cooperation, stated, "We believe that the biggest gap in capabilities in the lean movement, and the root cause of the failure of many lean programs, is in leadership" (Liker & Convis, 2012, p. xiii).

Liker and Convis (2012) described leadership as the root cause of Lean implementations and/or continued transformation to a Lean organization. Lean leadership shapes the culture of the organization and also the people in it. Leadership in Toyota is about creating the basis for the work of the employees, facilitating their development and focusing the team on True North.<sup>3</sup> The recipe for success is a deep, time-consuming, and expensive investment in developing everyone in the organization, and truly believing that the employees are the most precious resource. The role of the leader in this context is to be open to cultivate his/her own leadership skills, develop subordinates so they can grow and improve, and remove obstacles and set challenges and goals so that

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<sup>3</sup> True North is a key concept in Lean process improvement. It is an idiom that emerged from Toyota connotes the compass needle for Lean transformation. True North works as a compass, providing a guide to take an organization from the current condition to where they want to be (Liker & Convis, 2012).

the teams can contribute to the organization's CI and attainment of its long-term goals.

The term *long* is also included when Toyota decides to develop a leader (Liker & Convis, 2012). Toyota is making a decades-long commitment to development, rather than putting potential leaders through a six-week training course. Leaders at Toyota must develop themselves to a certain level before they can take responsibility for developing others in the Toyota Way and leading the organization to achieve challenging goals, as described by Ohno (1988).

According to Likert and Convis (2012) and Ohno (1988), there are differences between traditional Western organizational leadership and Toyota leadership. One of the most important is the picture of the leader's personality. In the West, a leader is often portrayed as a charismatic, heroic, solo-visionary speechmaker and super-boss who stands against the tide and makes people follow. At Toyota, a leader is perceived more as a humble person who can see possibilities in improvement in self and other. Ohno (1988) described the leadership at Toyota as "management by *ninjutsu* (the art of invisibility) a reflection of its Japanese character and culture" (p. 70).

The Toyota leadership has similarities with the teachings of Confucius, such as:

- A lifelong pursuit of self-development so one can serve society
  - Striving for perfection, recognizing that humans are never perfect
  - Openness to self-development and continuous learning
  - Practice rooted in deep understanding of reality
  - A self-critical attitude with reflections every day on one's weakness and how one can improve
  - A deep respect for more senior people who have invested in developing themselves and have something to teach
  - The concept of 'responsibility', including responsibility for developing others as you develop yourself
- (Liker & Convis, 2012, p. 49)

At Toyota, the leaders actively seek to improve themselves and their skills (Liker & Convis, 2012). Other people in the organization support the leader to both find and reflect on acts to deal with. It is also important to develop others. It is often said that the best way to learn is to teach. Toyota takes this view to heart and expects leaders to coach and develop their staff. At Toyota, the best measure of a leader's success is what is accomplished by the people that he/she trained.

Toyota has built a strong culture among leadership and, according to Schein (2017), cultural maintenance is the core of leadership; how leaders behave

influences the attitudes and behaviours of the rest of the employees. Therefore, the next sub-chapter will be about Lean leadership behaviours.

### 2.4.3 Lean Leadership Behaviours

While Lean became increasingly familiar in the West, and the cultural problems occurred, researchers started to find out what was missing. Emiliani (1998) studied the leadership in Lean, finding that conventional management practices do not recognize the existence of waste (Emiliani, 2008, 2014). He also pinpointed the important understanding of *real* Lean (Emiliani, 2010), which is the basis for a Lean implementation to succeed at all.

According to Emiliani (1998), there are two different types of waste – *process waste* and *behavioural waste* – and both are equally important. Emiliani found that there were methods and systems to make the process waste visible, but that it was lacking on the behavioural side. Therefore, he took Womack and Jones's (2003) product value stream concept (specify value, identify the value stream, flow, pull, and perfection) to improve production processes, in organizations into a behavioural context, and called the concept Lean leadership behaviours (LLB). The LLB concept is developed to support the RFP principle and facilitate the development towards a Lean culture. LLB includes the following:

- *Specify value* means understanding the wants and expectations of the people we work with in terms of what the leader should be and what the people want to hear, see, say or do. Others judge these behaviours to be acceptable in certain environments.
- *Identify the value stream* means understanding what people do and why they do it. Look for behaviours that add value and try to support them and try to avoid wrong behaviours that are wasteful. Waste appears in the value stream when people do not talk to each other, for example.
- *Flow* is about behaving in a manner that minimizes delays in work performance. Any inconsistent behaviour will create queues that will threaten responsiveness to changing conditions. The leader's inability to *walk the talk* is the most obvious form of waste in this concept.
- *Pull* means recognizing that people operate under many different mental models, which requires the leader to adjust the leadership style often to meet the expectations from workers and stakeholders.
- *Perfection* means taking advantages of the transparency brought about by the four first concepts (steps) in order to easily identify and eliminate values that do not create value. In a transparent organization, the leader (and co-workers as well) delivers more immediate feedbacks, for example (Emiliani, 1998).

Together with the behavioural concept of improving interpersonal processes, there are behaviours that are analogous to Lean principles in common, and are defined “simply as behaviors that add or create value” (Emiliani, 1998, p. 619). Emiliani (2008) argued that successful Lean leaders know that they need to be consistent, and be role models. If the leader tells the employees to eliminate process waste, then the leader must *behave* in the same way. The leader cannot behave wastefully, and if he or she does, it sends a contradictory, demotivating message that workers can identify. Emiliani categorized behaviours into three different parts: *waste*, *behaviours that add no value but cannot be avoided*, and *behaviours that add value*.

LLB are *the behaviours that add or create value*, such as trust, generosity, patience, objectivity, discipline, and reflection behaviours (Emiliani, 1998). The opposite of LLB behaviours are waste behaviours (are also called *fat behaviours*), which are behaviours that inhibit work flow like ego, inaction, blame, revenge, demeaning, and elitism. Fat behaviours can also be recognizable as lots of talk but no action, waste of creativity, underutilizing workers talents or waste of people (Emiliani, 2008). *Behaviours that add no value but cannot be avoided* are in between the two opposites (Emiliani, 1998) and can be recognizable as behaviours like biases, negativity, and gossip. Those behaviours exist because people are not perfect (Emiliani, 2008).

Behavioural waste is a real phenomenon that will cause harm if efforts are not taken to identify and eliminate (Emiliani, 1998). An organization that fails to eliminate fat behaviours risk blocking “the flow of information, undermines teamwork, causes delay and re-work, focus people’s attention on problem avoidance and obfuscation, lowers job satisfaction, and makes it much more difficult to satisfy customers” (Emiliani, 2008, p. 40). If the leader recognizes behaviours in his/her leadership, there are ways to overcome these behaviours. Thus, the connection between LLB and processes is hard to recognize due to the lengthy and unrelenting focus on fake Lean (Emiliani, 2010). LLB have a strong focus of behaviours, as does developmental leadership (DL), which is the next described model.

#### 2.4.4 Developmental Leadership (DL)

Developmental leadership (DL) is characterized by the leader acting as a *role model* and raising questions of morals and ethics whilst observing core values (Fors Brandebo et al., 2018). DL is a mental approach (a state of mind) and is consequently related to behaviours. The model presented in Paper I (Ljungblom, 2012) differs from that presented in this sub-chapter, because the model has been developed over several years (Fors Brandebo et al., 2018).

There are two main differences between the model from 2012 and the model in this thesis. Firstly the word *authentic* has been added to *exemplary acting*, one of the three characteristic behaviours in DL. In the new model, the characteristic behaviour is: *exemplary acting, authentic*. Secondly the Destructive leadership has been added to the model, and both new components are in italic in the model (see Figure 12).

The DL model places different leading styles in a coordinate system within two axes – *organizational results* and *individual development* – and describes a relation between different leader behaviours where the leaders differs through shown *frequencies of behaviours over time*. All leaders use different styles, to greater or lesser extents, and the situation matters according to Fors Brandebo et al. (2018).

DL is characterized by an ability to achieve balanced control, make demands through agreements, reward, and act as role models. The ideal leader has a good set of values, acts with authenticity, is caring, provides support, inspires, and invites participation. These characteristic behaviours form the DL components *exemplary acting* and *authentic, individual consideration*, and *inspiration and motivation* (see Figure 12), and they are operationalized into sub-components (Larsson et al., 2017).

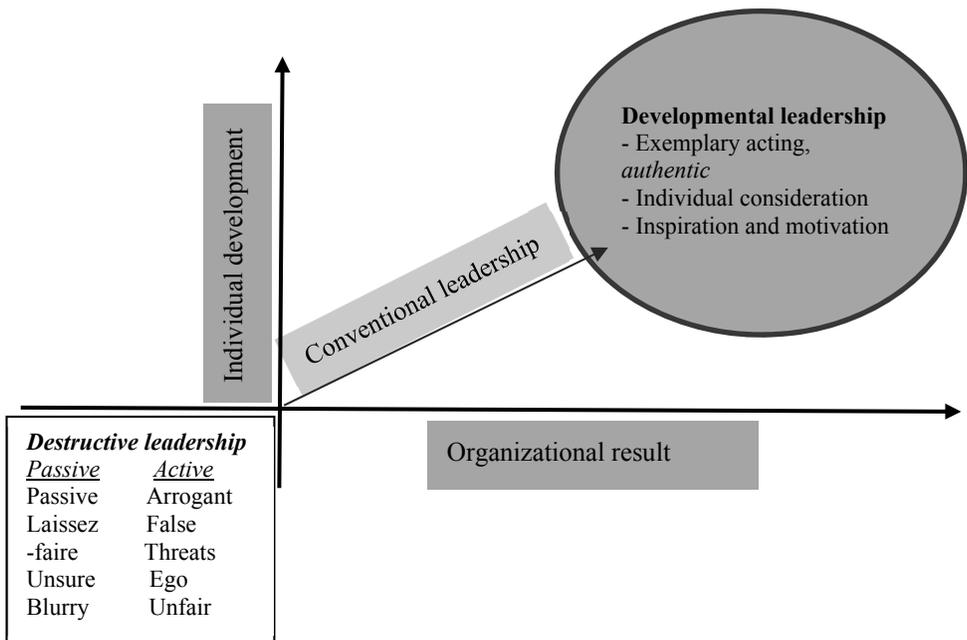


Figure 12: The new model of developmental leadership (Fors Brandebo et al. 2018; Larsson et al., 2017).

*Exemplary acting and authentic* has three sub-components (Larsson et al., 2017). The first is *value base*, which includes behaviours where the leader shows humanistic values, demanding loyal, moral and ethical behaviour by co-workers. The second sub-component is *good example*, which means acting like you talk and to having courage to lead the group, even in difficult situations. The last third sub-component is *responsibility*, which means being responsible for solving the organization's tasks, for co-workers' health and well-being, and ensuring that values are adhered to. The third sub-component also means that the leader assumes full responsibility when mistakes are made and shares the responsibility for successes. Leaders who act exemplarily and authentically gain the respect and approval of their co-workers. Furthermore, the acts of the leader are characterized by trust and create trust in the co-workers.

The second component, *individual consideration*, contains two sub-components (Larsson et al., 2017). The first is *support*, which includes *emotional* and *practical* support (with more weight on the emotional part), and the leader is expected to show interest in both private and work aspects of the employees' lives. The second sub-component is to *confront*. It is necessary for the leader to be able to confront co-workers who have underachieved, and handle and communicate so the result is educational rather than counter-productive.

The third component in the characteristic behaviours of DL is *inspiration and motivation*, which also has two sub-components: *promote participation* and *promote creativity* (Larsson et al., 2017). The former concerns pro-active engagement and forming an attractive future status giving responsibility to co-workers. The latter refers to encouraging co-workers to generate new ideas, promoting different ways to process problems and challenging the processes and behaviours that are in current use.

Additional to these three characteristic behaviours of DL is the component *conventional leadership*, which has two sub-components (Larsson et al., 2017). The first sub-component contains leader behaviours that recognize demands and rewards and can be summarized as *I am kind to you, if you are kind to me*. The second sub-component is focused on leader behaviours that are controlling and is based on the leader's behaviour to study and monitor the way co-workers approach work, and correct deviations from the plan following the motto – *The rules must be followed to make sure that there will be no mistakes*.

DL and conventional leadership can be seen as complements to each other rather than opposites (Larsson et al., 2017). Both focus on goal achievement, but there is an important difference between them: motivation. A conventional leader uses more of the *If, but only if, reward*, and often refers to duties, laws and policies rather than to collective values, goals and interests. Conventional

behaviours often result in co-workers performing their tasks but lacking motivation to do more. The goal and the goal achievement are exclusive for the leader. However, the developmental leader can motivate his/hers co-workers to reach the goal together and the competence to do this comes from the co-worker him/herself.

Research in behavioural science shows that *bad is stronger than good*, which means that bad things can have larger and more lasting effects than positive things (Fors Brandebo et al., 2018; Larsson et al., 2017). One explanation for this phenomenon is that humans are programmed to respond to bad things, and that is how mankind has survived over time. Some even say that the psychological experience of something positive must be five times stronger in order to outweigh the negative. In other words, a person needs to do five times as many good things than bad, so that the bad will not prevail.

The idea that *bad is stronger* also applies in leadership, as it shows that destructive leader behaviours do more harm than successful leader behaviours do (Fors Brandebo et al., 2018; Larsson et al., 2017). Bad leadership behaviours have stronger and more lasting effects. A destructive leader is often described as a psychopath, an abuser of power, someone with a need for control, a moody and unbalanced person, someone who constantly criticizes or someone who favours certain employees.

However, it is not that simple. The destructive leader may be the one we least believe, the popular and decent one who wants everyone's wellbeing (Fors Brandebo et al., 2018; Larsson et al., 2017). Destructive behaviours can partly be the result of active action, as previously described, but also of failure to act, which is a passive behaviour. It is the result of the leader's behaviour that matters, not the initial intention.

Leaders who are destructive can be arrogant and unfair, punish, impose unreasonable demands, and take on the honour of the work of the employees (Fors Brandebo et al., 2018; Larsson et al., 2017). However, they can be uncertain, unclear or passive, which proves that the leader does not deal with conflicts, stays away and is absent. Such a destructive passive leader does not grasp things and becomes both uncertain and unclear in his/her leadership. These leaders can also be poor at planning, structuring and giving clear instructions.

Research shows that the passive destructive behaviours do the most harm in an organization (Fors Brandebo et al., 2018; Larsson et al., 2017). Therefore, we must remember that destructive leadership is not about making mistakes now and then. Even a good leader makes mistakes, but not the same mistakes repeatedly. It is precisely the repetition of destructive behaviours *over time*

that characterises destructive leadership, just as with the good behaviours characterise developmental leadership.

Destructive leadership can have a negative impact on elements such as job satisfaction, motivation and confidence, and can create problems such as stress and emotional fatigue (Fors Brandebo et al., 2018; Larsson et al., 2017). The nearest manager's behaviour affects the relationship with the employee; in addition, employees of a destructive leader also tend to have a negative attitude towards the organization as a whole. Therefore, a destructive leader can have serious consequences for the entire business.

### 2.4.5 Leadership and Values

To achieve consonance (see Sub-chapter 2.3.3), it is necessary to have a leader who wants to be able to influence how employees act and behave in the workplace (Philipson, 2011). Leaders usually want their employees to choose what is perceived as valuable. Employees' values, and subsequently their actions, must be motivated by what is good and desirable.

Ideally, leaders might want to push a button and change the way employees behave (Philipson, 2011), but the leader cannot do that. Instead, leaders can reward actions that are desirable and criticize the others. A leader, or anyone else for that matter, cannot really change people, unless the leader forces them to. However, forcing is not seen as a desirable change. A person changes as she consciously changes his/her values and thereby acts in a different way. A leader can help influence such a change, through such means as motivation and inspiration (Larsson et al., 2017). Nevertheless, the individual is responsible for the change and will not change if he/she does not earn anything him/herself.

Most value-based leadership is about helping employees gain greater clarity regarding what values they have and how they want to choose in different situations (Philipson, 2011). Value-based leadership is about presenting the values that govern the organization. In order for the leadership based on values to function, employees must be able to identify with the company's value base, which requires a high level of awareness among the employees.

When consensus on values occurs, the leader has achieved consonance (Philipson, 2011). In other words, value-based leadership is about learning and later helping employees stay on the right course. For the control to be effective, the basic values, goals and rules of action must conform. Well-functioning value-based leadership can be demonstrated when employees see a deeper meaning in the work than simply generating profits for the owners or salaries for the staff, and employees take pride in what they do and where they work.

## 2.4.6 Theoretical Framework

This concluding section of Chapter 2 summarizes the theoretical framework. I will again use the developed SLIM model that I presented in Figure 5.

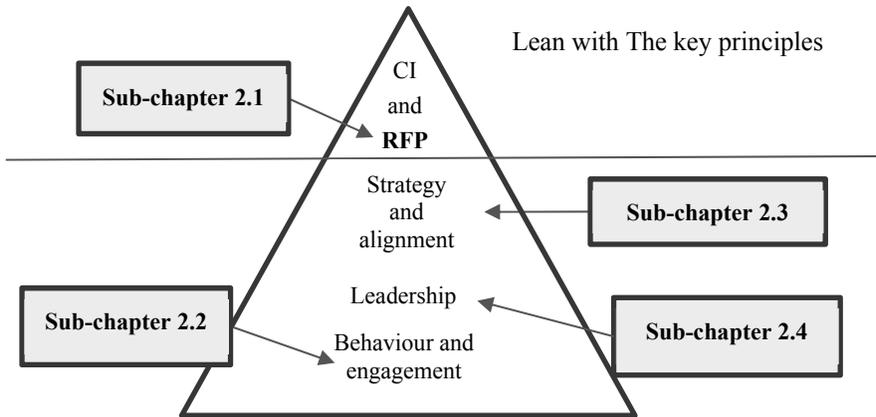


Figure 13: An overview of the theoretical framework.

**Sub-chapter 2.1** described Lean and its historical background through Toyota and TPS to the qualitative Lean culture described today. Different research models of Lean and its principles were presented, such as the product value stream (Womack & Jones, 2003), the Toyota Way (Liker, 2004) and Wittrock's (2015) Lean key principles, in order to obtain an overview of the research field to later focus on RFP.

Sub-chapter 2.1 also explained that Lean has both visible and invisible elements and the latter is exemplified by Rother's (2013) model and Hines' (2010) SLIM model, both of which describe difficulties in understanding RFP's invisible elements and its unique thoughts and practices.

**Sub-chapter 2.2** described ethics and the importance of relating to them, regardless of the research area. Different ethical approaches are described with a focus on virtue ethics. It also presents Philipson's (2004) theory of maximalistic and minimalistic ethics and how the theory can be applied in an organization.

**Sub-chapter 2.3** described culture and the importance of understanding differences in culture in terms of both national and organizational culture. First, Hines' (2013) Lean maturity framework is described and then Schein's (2017) Three Levels of Culture model. Philipson's consonance metaphor is also presented. Toyota's culture, as part of the national culture, is presented as well.

This section also describes Japanese religions and philosophies such as Shintoism, Buddhism and Confucianism.

The theory chapter concludes with leadership in **Sub-chapter 2.4**. Here, Lean leadership and how Toyota views leadership are described and then two leadership models are presented: Lean leadership behaviours (Emiliani, 1998) and Developmental leadership (Fors Brandebo et al., 2018).

## 3 Methodology

*This chapter describes the framework for the research: approaches, methods for data collection and analyses in general, as well as the ones used in this thesis, and the appended papers. Choices of literature and ethical consideration is also described.*

### 3.1 Pre – understanding

I will start this chapter by briefly presenting a story about how I became interested in the subject of this thesis. People and their behaviours have always fascinated me, and I became interested in leadership at a young age. I have worked as a teacher in leadership and group dynamics since 2002, and before that I worked as an officer for 15 years, including responsibility for leadership training at a Swedish regiment.

My path, both in terms of development and knowledge, has been about seizing opportunities, and solving the problems when they arise, which has also coloured my way of learning, teaching and problem solving. My way of learning is inspired by *learning by doing* to understand myself, the situation, and the people around me. *Learning by doing* is one of the cornerstones of *pragmatism* (Imsen, 1999), and the foundational position in *pragmatism* is that we learn best when we confront a problem or a situation and actively need to think about ourselves and to always consider the value of knowledge – *what is in it for me*. Knowledge of reality is indirect in *pragmatism*, because it stems from human interaction with reality. Adopting this pragmatic approach to knowledge, my research journey began in 2008 when a colleague persuaded me to study my own teaching, write a paper about the effectiveness of leadership education in a distance learning setting, and submit the paper to a quality conference.

At the conference, I was struck by the lack of presentations about leadership, given that leadership is said to be crucial to achieve quality. Accordingly, my next research paper was a literature study of books commonly used in university courses in quality management, which showed that only two to five per

cent of the pages in the literature concerned leadership. This made me even more interested in understanding these human aspects in quality management.

In 2011 I took a PhD course in Lean where I encountered Lean leadership for the first time. I was taught that the Lean leadership was new and special. As a military officer, I had worked with and used developmental leadership for several years, and I recognized many similarities with Lean leadership. Again I was hooked, so I shifted my focus, wrote a paper, presented it at a quality conference and had it published (Paper I and Sub-chapter 3.5.1). While studying Lean leadership, I read about *respect for people* (RFP), the key Lean principle and found a new area of interest.

In 2012, another colleague gave me an article that was highly critical of the use of quality management systems in health care. This article led me to take an interest in ethics combined with Lean, and resulted in a new published paper (see Paper II and Sub-chapter 3.5.2). Around the same time, I decided to become a PhD student. My supervisor was also interested in ethics and we wrote a paper together that focused on the meaning of ethics in a project management context (see Paper III and Sub-chapter 3.5.3).

Still, I was enchanted by RFP, and had an opportunity to follow a Lean implementation in a supermarket, which resulted in Paper V (see Paper V and Sub-chapter 3.5.5), but before that I tried to find a deeper explanation of the principle RFP (see Paper IV and Sub-chapter 3.5.4).

## 3.2 Research Framework

The research approach should be decided according to the problem and the purpose of the research, and the research can be classified as descriptive, explanatory, and exploratory (Yin, 1994). These three classifications can also complement each other. A *descriptive* study aims to describe a phenomena in its real context. An *explanatory* study aims to explain why or how some phenomena occur or not. An *exploratory* study is useful when a researcher wishes to clarify the understanding of a problem and seeks answers to questions like *how, why, who, what, and where*.

The purpose of this thesis was twofold. The first part was to develop alternative understandings of RFP and relationships to ethics, leadership, and culture in Lean implementations. The second part was to suggest a normative framework that helps leaders achieve *real* Lean. The first part of the purpose, *to develop alternative understandings*, can be achieved by exploring, analysing and describing the phenomena, so an *exploratory* and *descriptive* study was chosen.

I felt that I needed a framework as help and support when describing my research journey. I chose Creswell and Creswell’s (2018) framework (see Figure 14).

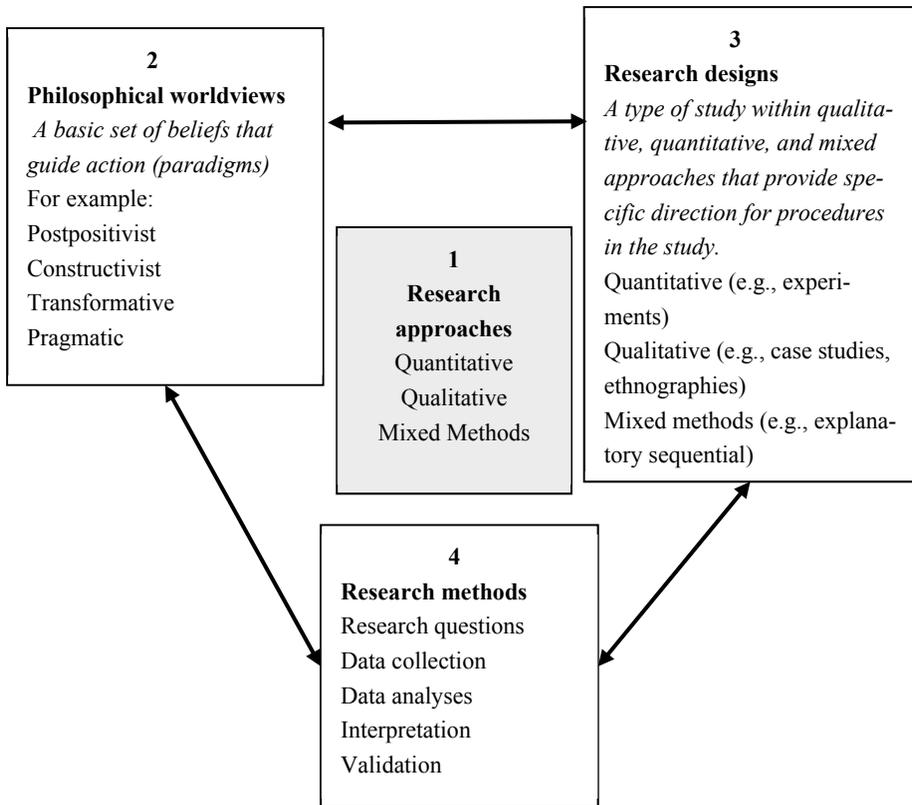


Figure 14: A framework for research: the interconnection of worldviews, design and research methods (developed from Creswell & Creswell, 2018, p. 5).

Using the research framework by Creswell and Creswell (2018), I will start by presenting the *first step: research approach* (qualitative, quantitative or mixed). I will then introduce my *second step: the philosophical worldview* (postpositivist, constructivist, transformative or pragmatic), the *third step: research design* (for example, case study or ethnographies), and, finally, the *fourth step: research methods* (data collection, data analyses, validation, etc.).

### 3.2.1 Research Approach and Philosophical Worldview

Using the framework in Figure 14, I will start presenting the research approach of the thesis. According to Denscombe (2016), research approaches are, in themselves, not good or bad, right or wrong. They are plans and the procedures

for what the research will include (Creswell & Creswell, 2018). A research approach can only be judged in relation to the purpose for which it is used. Instead, it is better to think rather of usefulness and suitability in the choice.

The research approach chosen depends on how the researcher relates to reality and the view of knowledge development. According to Creswell and Creswell (2018), different research approaches are common in epistemological discussions, namely – *quantitative*, *qualitative*, and *mixed methods*. The *quantitative* and *qualitative* approaches should not be seen as rigid and polar opposites. Instead, they represent different ends of continuum. Nevertheless, there are some differences that can be notable.

**Table 4:**  
*Some of the differences between a quantitative and qualitative approach.*

<b>Quantitative</b>	<b>Qualitative</b>
Stable and objective reality; regulated by laws	Dynamic and man-made reality
The general	The unique and distinctive
Objective reality that can be studied with objective methods and measures	Reality is constructed by humans and must be studied by examining how humans perceive reality
Neutral researchers who describe reality	Researchers who interpret reality
Knowledge is cumulative	Knowledge is local and unique
Deductive	Inductive
Individual	Holistic
Distance	Closeness
Numbers, closed-ended questions and responses	Words, open-ended questions and responses

*Note:* There can also be a mixed method that combines quantitative and qualitative methods (Creswell & Creswell, 2018; Jacobsen, 2017).

Given the content of this thesis and my attitude to approaching and understanding knowledge, I adopted a qualitative approach.

The next step in the framework is *philosophical worldview*. Considering my *learning by doing approach* and my research journey so far (with a journey starting in an area of interest that was investigated and that stimulated interest in another area that was investigated), a *pragmatic worldview* seems to correspond to my worldview.

The *pragmatic worldview* arises from actions, situations, and consequences according to Creswell and Creswell (2018). Instead of focusing on methods, I have emphasized the research problem/question and used all approaches, methods, techniques and procedures for research that best meet the needs and purposes available to understand the problem.

A pragmatic researcher maintains that truth is what works at the time, and looks to *what* and *how* to research based on the intended consequences (Creswell & Creswell, 2018). In my opinion, the latter is the way I have tackled various problems in my research, such as the development of the concept of RFP in various papers.

However, I will say that the *pragmatic worldview* can also be recognizable in the way the problems and questions are approached in this thesis. Figure 15 shows the deductive, inductive and abductive methods. Induction has its starting point in the empirical work and is about building theory (Jacobsen, 2017). Deduction is about testing a theory. Induction means that the researcher draws general conclusions based on empirical facts and provides theoretical explanations based on empirical findings. On the contrary, deduction takes its start in a general rule and then claims that this explains a certain phenomenon of interest. There is also a mix of them, referred to as abduction.

Abduction is a pragmatic approach based on the idea that everything scientifically starts with observations, and this is also the starting point in the method (Jacobsen, 2017). A phenomenon emerges, which gives rise to a question. The question is considered as a problem that generates a number of assumptions (hypotheses), which are confronted with the empirical material to determine whether they are true. This is a continuous problem-solving process. In this thesis, the abductive method has been used in accordance with the pragmatic path, and the attached documents have been part of it (see Sub-chapter 3.5).

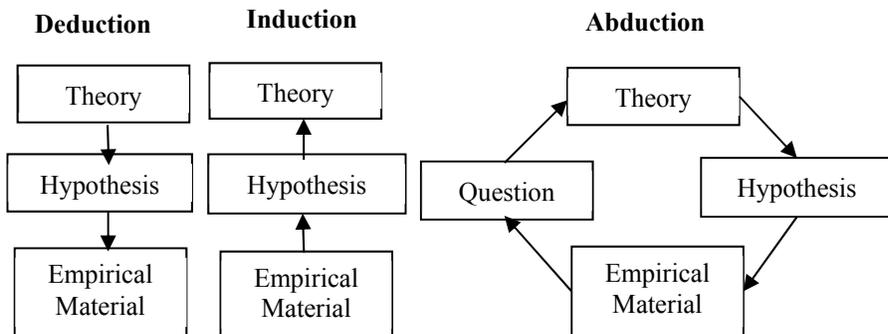


Figure 15: Differences in direction of the process among deduction, induction and abduction (Jacobsen, 2017. p. 27).

So far, I have described Steps 1 and 2 in Creswell and Creswell's (2018) framework. In this thesis, I have used a qualitative approach (1) with a pragmatic worldview (2) since my purpose was to understand (explore and describe) a phenomenon in reality.

### 3.2.2 Research Design

The *research design* represents various procedures in a research study in collecting and analysing empirical data (Creswell & Creswell, 2018). Given the qualitative nature of the purpose of this thesis, five different kinds of designs could be used, according to Yin (1994): experiment, survey, archival analysis, history, and case study. The five designs have distinctive characteristics, but can be used for collecting data depending on the purpose.

If you use an exploratory research approach, as I have done in this thesis, a case study is often suitable when investigating a particular and clearly defined phenomenon (Yin, 1994). Furthermore, this thesis is focused on recognizable facts, descriptions that hopefully facilitate the reader's understanding, which is also important in a case study according to Yin (1994). The case study, as a strategy, is used to contribute to and increase to knowledge of the phenomenon, which can be individual, group, or an organization. It can also be a social phenomenon within the categories. However, the question is, what is the phenomenon in this thesis? *The phenomenon (case) investigated in this thesis is the key principle RFP with its invisible elements.*

## 3.3 Research Methods – Data Collection and Strategies for Analysis

Once the design has been chosen (in this thesis, a case study), the next steps are to find data to work with and then analyse the data. In this chapter, I present data collection method, followed by strategies for analysis.

### 3.3.1 Data Collection

This thesis is designed as a case study, and many sources of information can be used. Yin (1994) discussed six sources: *documentation, archival records, interviews, direct observations, participant observations, and physical artefacts*. According to Jacobsen (2017), *questionnaires* also can be used in qualitative studies.

Instead of the term *documentation* that Yin (1994) used, Creswell and Creswell (2018) preferred the term *literature studies*. Literature studies contain

the methods of collection described in documentation, but also literature as books. I have used the term *literature study* in the present study because I think it fits better into the thesis.

The sources used for information in this thesis have been literature studies, interviews, participatory observations, and questionnaires. Sub-chapter 3.5 explains how the sources have then been used in each paper.

### **3.3.1.1 Literature Study**

Literature studies may include several categories of literature, such as documentations, archival records, audio-visual material, and books (Creswell & Creswell, 2018). Documentary information can be e-mail correspondence, minutes of meetings, administrative documents, formal studies, articles from newspapers, etc. (Yin, 1994).

Toyota's website and practitioner-oriented literature were used in the research for this thesis. Sub-chapter 3.5 shows how the different sources are used in each paper.

#### *The choice of literature*

The choice of literature is important in a survey and, perhaps above all, *why* the specific literature has been chosen.

Because much of this thesis is about Toyota and Lean, original sources from Toyota were important. These included books and videos by former executives in the organization (such as Ohno and Hayashi), together with people who have influenced, worked at or studied the organization (such as Liker and Rother). The Toyota website was also studied and research articles in the field were analysed.

In the thesis, theory and literature outside the Lean literature were also used to shed light on RFP and the aspects of the invisible elements in Lean. Regarding ethics, for example, books and research papers by several ethicists have been used. The most used author is Sten Philipson, a Swedish business ethicist, because of his concepts maximalistic and minimalistic ethics. Philipson has a unique approach to these concepts, which was considered useful in this thesis.

When culture is discussed Schein and Philipson were used together with other sources. The former is well known researcher in the field of culture, and the latter is new in this context and chosen because of his cultural metaphor of organizational consonance.

When leadership is discussed, there are several sources from research papers together with Liker and Convis, Emiliani, Fors Brandebo et al., and Larsson et al. Liker and Convis, and Emiliani were used while discussing Lean leadership in different forms. Liker and Convis were selected because of Liker's insights into Toyota's leadership, and Emiliani was chosen for his development of Lean leadership over many years. The last two (Brandebo et al., and Larsson et al.) were chosen for their Swedish leadership model, developmental leadership, which is researched and used in the Swedish defence forces. The leadership model is also used by managers outside the Swedish military.

### **3.3.1.2 Interview**

The interview is probably one of the most frequently used methods to collect qualitative data (Jacobsen, 2017). An interview is characterized by discussions between two or more people to collect data in the form of words, sentences, and stories that provide authentic knowledge about the phenomenon. The type of interview can vary depending on the research questions and purpose (Yin, 1994), and they are often described as structured, semi-structured, and unstructured (also called in-depth) interviews.

Qualitative and unstructured interviews were used in the present thesis.

### **3.3.1.3 Questionnaire**

Questionnaires as a data collection method are most often seen in quantitative studies, where questionnaires with given answer alternatives dominate (Jacobsen, 2017). However, questionnaires are also used as a data collection method in qualitative studies, but then consist of open-ended questions that the respondents answer in their own words.

The latter was what is used in this thesis (see Paper III, Sub-chapter 3.5.3).

### **3.3.1.4 Observation**

It is common to distinguish between different types of observation (Jacobsen, 2017). A dividing line is whether the person being examined is aware or not. This is called open or hidden observation. Another line exists between participatory observation and observation more at a distance. Participatory observation means that the observer participates on equal terms with those who are examined.

In this thesis, participatory observation was used.

### 3.3.2 Strategies for Analysis

Analysis of qualitative data is predominantly about analysis of conversations and text (Denscombe, 2016) and consists of examining, categorizing, tabulating, or otherwise recombining the empirical to address the initial propositions of a study (Yin, 1994). In qualitative studies, content analysis is common and is seen as a flexible method for analysing text data (Bryman, 2008). Bryman described the content analysis as a systematic and replicable technique for summarizing words in a text into fewer content categories based on predetermined categories.

According to Denscombe (2016), there are also four other analysis strategies: grounded theory (interpretation of text), discourse analysis (meaning of the text), conversational analysis (the sequence and structure of the conversations), and narrative analysis (the social meaning of the text). Following the chosen analysis strategy, there are techniques to facilitate the analysis. Yin (1994) mentioned four major techniques for analyses that can be used in a case study (see Table 5). Each is applicable whether a study involves a single- or a multiple-case strategy.

**Table 5:**  
Four major techniques for analyses.

<b>Technique</b>	<b>Description</b>
Pattern-matching <i>The most desirable strategy for case studies</i>	Comparing an empirically based pattern with one or several predicted ones. If the patterns agree, the results can help increase the internal validity in the case study.
Explanation-building	A special kind of pattern-matching to use in explanatory studies. The purpose is to analyse the case by finding an explanation of the phenomenon.
Time-series analyses	This strategy can be used when one wants to identify important events or activities occurring on different occasions.
Programme-logic models	This strategy is a combination of pattern-matching and time-series analyses. It can be useful in both explanatory and exploratory studies.

*Note:* Source: Yin, 1994.

In this thesis, content analysis (for example, defining the word ‘respect’) and discourse analysis are used together with pattern-matching.

### 3.4 Summary of Methodological Choices in the Thesis

Table 6 presents the methodological choices made in the thesis. The choices in each appended paper are presented in Sub-chapter 3.5.

**Table 6:**  
Summary of methodological choices in this thesis.

<b>Research purpose</b>						
<i>Descriptive</i>		Explanatory		<i>Exploratory</i>		
<b>Research approach</b>						
<i>Qualitative</i>			Quantitative			
Deduction		Induction		<i>Abduction</i>		
<b>Philosophical worldview</b>						
Postpositivist		Constructivist		Transformative	<i>Pragmatic</i>	
<b>Research design</b>						
<i>Qualitative</i>			Quantitative			
Experiment	Survey		Archival analysis		History <i>Case study</i>	
<b>Research methods</b>						
<b>Data collection</b>						
<i>Literature study</i>	Physical artefacts	<i>Interviews and questionnaires</i>		Direct observations	<i>Participant observations</i>	Archival records
<b>Data analysis</b>						
<i>Content analysis</i>	Grounded theory	<i>Discourse analysis</i>	Conversation analysis		Narrative analysis	<i>Content analysis</i>
<i>Pattern- matching</i>		Explanation-building	Time-series analyses	Programmed-logic models		

*Note:* The choices made for the present thesis are shown in bold italics.

This thesis is a qualitative, exploratory and descriptive case study with an abductive approach. The data have been collected by literature studies, interviews, participant observations, and questionnaires. Content, and discourse analysis are used together with pattern-matching to analyse the data.

The next sub-chapter describes the research processes in each individual paper.

### 3.5 Research Methods – Data Collection and Strategies for Analysis of Appended Papers

The following chapter describes the study design, data collection and analysis for each of the papers. All papers have a qualitative approach and a pragmatic worldview; other methodological parameters differ.

#### 3.5.1 Paper I: A Comparative Study between Developmental Leadership and Lean Leadership – Similarities and Differences

The purpose of the paper was to compare the two leadership models – developmental leadership and Lean leadership – and identify differences and similarities and explore whether it is possible to use these two models together to achieve better results. The methodology used can be seen in Table 7.

**Table 7:**  
*Methodology used in Paper I.*

<b>Data collection</b>	<b>Data analysis</b>
<ul style="list-style-type: none"><li>Literature study</li></ul>	<ul style="list-style-type: none"><li>Content analysis</li><li>Pattern matching</li></ul>

As a starting point, literature and articles about developmental leadership (DL) and Lean leadership behaviours (LLB) were identified. The reason why these two models were chosen was that I studied Lean leadership in a university course, and LLB was then said to be useful and effective for Lean leaders. I had previously both used and studied DL, and thought I saw some similarities between LLB, which I wanted to study in more depth, and also if they could be used together to achieve better or other results in an organization.

DL originated at the Swedish Defence College, and LLB were created by the Lean researcher Emiliani. To learn more about DL and LLB, I also read about the foundational theories of transformational leadership and Lean leadership. The selection of literature can best be described as the snowball effect. As a first step, I selected some popular and often-read articles and books. One read article gave insights to new references and new interesting articles, and so on.

To compare the two models of leadership, I wanted to use the 66-item rating questionnaires used in DL with something similar from LLB. In DL, two different 66-item rating questionnaires are available. One is a self-evaluating questionnaire for the leader and one is for co-workers to evaluate the leader. I

chose to use the self-evaluating one. Emiliani’s (2008) LLB did not have anything similar to the questionnaire, and I found it difficult to obtain a specialized list.

Nonetheless, I found three published tables – value-added behaviours, Lean behaviours, and continuous personal improvement – that I used. Emiliani (1998) also described *fifty errors to avoid*, which are identified as so-called waste behaviours; in other words, fat behaviours to avoid. I used this as well. The next step was to merge the three tables and the *fifty errors to avoid* into a single Lean leader behaviour model. The result was a document with 19 Lean behaviours, both single words and quotes. Now I had two documents that could be compared.

Additionally, a qualitative content analysis with pattern-matching was conducted by comparing the two documents, as can be seen in Table 8.

**Table 8:**  
*Comparison between LLB and DL.*

	<b>Lean behaviours – value adding</b>	<b>Developmental leadership item number</b>
1	Humility	15. I treat people appropriately who have not carried out tasks well 19. I even delegate prestigious tasks 26. I aim to reach agreements on what must be done
2	Calmness	58. I keep calm in stressful situations 59. I demonstrate positive thinking in stressful situations
3	Wisdom	10. I show insight into people’s needs 17. I can deal with troublesome co-workers 60. I make good decisions under pressure, even when lacking full information.

*Note:* This is just a small example of the comparison.

I then took one of Emiliani’s (2008) value-adding Lean behaviours, such as humility (see Table 8) and tried to find quotes in the DL questionnaire that corresponded to humility; in this case, quotes 15, 19 and 26. There were 19 quotes in LLB, and I matched them with most of the quotes from the DL 66-item questionnaire. The DL quotes 29–42 and 55–57 were not matched with any of LLB behaviours, since I identified them as fat behaviours.

### 3.5.2 Paper II: Ethics and Lean Management – a Paradox?!

The purpose of this paper was to research the practice of ethics in Swedish health care using Lean management. The methodology used can be seen in Table 9.

**Table 9:**  
*Methodology used in Paper II.*

<b>Data collection</b>	<b>Data analysis</b>
<ul style="list-style-type: none"><li>• Literature study</li></ul>	<ul style="list-style-type: none"><li>• Content analysis</li><li>• Pattern matching</li></ul>

As a starting point, literature in ethics and Lean management was selected. The approach to literature selection was to use common course literature in Swedish universities in those two areas. Next, a database (Google Scholar) was used to identify articles about Lean management in health care organizations. Keywords used were Lean, ethics, and health care in the title, but this search resulted in no articles at all. I removed the title limitation and ended up with 104 articles.

The first step in evaluating the articles was to read the abstracts to get information about whether the article discussed Lean with a focus on people. Articles that were not relevant to the study were rejected. The remaining 52 articles were reviewed to map, describe and compare the characteristics of ethics and Lean management from a health care point of view.

Additionally, a qualitative content analysis was made by comparing Liker's (2004) 14 Principles and the International Council of Nurses (ICN), as can be seen in Table 10. In the original Code of Ethics for Nurses document, there were no numbers in the nurse code. I placed numbers to easily locate the source. Also pattern-matching was used in the analysis.

**Table 10:**  
*Example of the comparison.*

Liker's principles	ICN Code of Ethics for Nurses
1) Base your management decisions on a long-term philosophy, even at the expense of short-term financial goals	1:1 The nurse's primary professional responsibility is to people requiring nursing care 1:2 In providing care, the nurse promotes an environment in which the human rights, values, customs and spiritual beliefs of the individual, family and community are respected 1:5 The nurse shares with society responsibility for initiating and supporting action to meet the health and social needs of the public, in particular those of vulnerable populations

*Note:* This is just a small example of the comparison.

### 3.5.3 Paper III: Virtues and Vices in Project Management Ethics – an Empirical Investigation of Project Managers and Project Management Students

The purpose of this paper was to explore empirically if virtue ethics is used. The methodology used can be seen in Table 11.

**Table 11:**  
*Methodology used in Paper III.*

Data collection	Data analysis
<ul style="list-style-type: none"> <li>• Literature study</li> <li>• Questionnaires</li> </ul>	<ul style="list-style-type: none"> <li>• Content analysis</li> <li>• Discourse analysis</li> <li>• Pattern matching</li> </ul>

As a starting point, Loo's (2001) three vignettes (ethical dilemmas) were re-used in a questionnaire. Responses were collected in 2011 and 2015. These included 88 responses from project management students (collected at a Swedish university in 2011) and 31 responses from practicing project managers (collected from project managers based in Sweden in 2015).

The students' responses were collected in class. All of the students in class participated. The responses from the project managers were provided via email. The sample of these responses included eight project managers conveniently selected from the authors' network. A further 23 project managers were found by asking managers of project offices (and other organizations working with projects) if their organization wanted to participate. It is important to state

that we did not choose respondents who use virtue ethics, but rather asked them about ethics, to see if they would naturally respond with concepts from virtue ethics.

In the questionnaire, the respondents were asked two sets of questions per dilemma:

- 1) What do you think about the action of the project manager? Did the project manager do the right or the wrong thing? Why? (Describe with as much detail and explanations as possible)
- 2) How would you act if you were in the same situation as the project manager? Why? (Describe with as much detail and explanations as possible)

With the vignettes, the respondents documented their own answers about how they perceive the action of the project manager and how they would have acted in the same situation.

After reading the answers, they were categorized after a special order to identify positions and find virtues and see whether differences and similarities within the respective response group and between the two groups could be identified. A qualitative content and discourse analysis was used together with pattern-matching.

### 3.5.4 Paper IV: The Lean Principle Respect for People as Respect for Craftsmanship

The purpose of this paper was to reach a deeper understanding of the Lean principle of respect for people (RFP) in order to facilitate Lean implementation in Western organizations outside Toyota. The methodology used can be seen in Table 12.

**Table 12:**  
*Methodology used in Paper IV.*

Data collection	Data analysis
<ul style="list-style-type: none"> <li>• Literature study</li> </ul>	<ul style="list-style-type: none"> <li>• Content analysis</li> <li>• Discourse analysis</li> <li>• Pattern matching</li> </ul>

The hermeneutic approach was well-suited to this study and allowed us to shift perspectives linking the *micro* (the RFP principle) with the *macro* (the cultural context in Japan), and challenged to reach a deeper understanding.

In relation to RQ1, relevant scholarly articles about Lean and RFP written in English from a geographical context other than Japan were searched for. Thereafter, two literature searches in Scopus during February 2020 were conducted, referred to in the paper as Searches A and B. In Search A the search terms *Lean* and *RFP* were used; in Search B, *Lean* and *respect*. Only articles in English were included. This resulted in 22 published hits in Search A (between 2004 and 2019) and 1349 articles in Search B. The first step for evaluating the articles was to read the abstracts to obtain information about whether the article discussed Lean with a focus on people in the organizations.

The abstracts in Search A were read first and all 22 articles were relevant. Two full versions of the 22 articles could not be found, so only 20 full articles were read. In Search B, after reading the first 253 abstracts (all from 2017–2020) of the 1349 articles, it was found that only 24 were about Lean. Of these 24, only 10 were relevant (focusing on Lean and people) and seven of those 10 had been found in Search A as well. With that result (1 per cent new articles), the other articles in Search B were left unread. The summary of both literature searches was 23 articles. A first way of analysing the 23 articles was to classify them according to an evaluation sheet.

The criteria for evaluating the articles were based on whether they explicitly dealt with RFP, defined it, discussed it, and connected it to its cultural context. As we read the articles in the literature search, interesting references appeared, which were read and analysed and some of them were also used as references in this paper.

In relation to RQ2, the literature stemming from Toyota's perspective on RFP was analysed, whether it was from managers at Toyota or researchers who have significant experience of Toyota. Concretely, this meant reading original sources from Toyota; that is, books or videos by former executives in the organization (Ohno, Hayashi), together with people who have influenced, worked at, or studied at the organization (Liker, Rother).

The Toyota website was also studied, and although the second author (Lennfors) has some Japanese language skills, help with the translation was received from a Japanese professor of business administration. To further contextualize, a search for an understanding of RFP, respect, and people in Japan was conducted, opening up to literature that is not directly related to Lean, in order to understand the broader context of the RFP principle. This was based on analysing the RFP principle in Japanese, which helped show that Toyota uses a particular version of the word *respect*, which led to further investigations through literature searches and discussions with the above-mentioned

professor. Furthermore, the RFP principle in Japanese also indicated a particular view of the concept of *people*. The concepts of *monozukuri*, *hitozukuri*, and *kotozukuri* were also investigated.

Both qualitative content and discourse analysis with pattern-matching was used to analyse the result.

### 3.5.5 Paper V: The Impact of the Lean Principle Respect for People – a Case Study of a Swedish Supermarket

The methodology used can be seen in Table 13.

**Table 13:**  
*Methodology used in Paper V.*

Data collection	Data Analysis
<ul style="list-style-type: none"> <li>• Participant observations</li> <li>• Qualitative unstructured interviews</li> <li>• Literature study</li> </ul>	<ul style="list-style-type: none"> <li>• Discourse analysis</li> <li>• Content analysis</li> <li>• Pattern-matching</li> </ul>

A case study of a supermarket in Sweden was conducted in order to generate context-dependent knowledge about the impact of the RFP principle in a Lean implementation.

There are three reasons for choosing this case. First, retail is an industry in which Lean is not very commonly used, although some examples exist in Japan, Europe and the US. Second, the supermarket in question has engaged in quality work and received an award in 2015 for being the best store in Sweden. Being quality-oriented and successful would be a potential driver for a successful Lean implementation. Third, although the choice of a Swedish case was a matter of convenience, from a Swedish perspective Lean is popular as an improvement system in several different industries, such as hospitals and large companies like Scania and Volvo. In addition, the retail industry has started to implement Lean in stores in Sweden.

A variety of data collection methods were used from January to June 2016. The primary data collection was participant observations, diary notes, discussion notes, talks with the implementation group (IG), the project manager (PM) and the consultant during workshops, real implementation work, information and practical parts. The parts where the first author used participant observations were in the training phase of the Lean implementation process, in various workshops, and in the start-up of the improvement work.

Furthermore, four formal interviews were made. The PM was interviewed twice: at the start of the project in February 2016 and then in April 2017. The implementation consultant was interviewed in March 2016 in order to obtain more information about the discussions, decisions and plans before the actual implementation start-up. The last interview was in November 2017, and the interviewee on this occasion was one of the former members in the IG, a sales manager (Level 3 manager) who left the job at the Supermarket in 2017.

Secondary data was collected from formal documents (project plans, meeting notes, technical specifications, contracts, and user manuals), as well as scientific publications, such as Norberg's (2019) case study about the same organization. I also collected data from a master's thesis by Rosén (2014) about a case study implementing Lean in a supermarket.

The results were interpreted through the theoretical RFP framework within Lean. A qualitative content analysis and discourse analysis were used to analyse the result together with pattern-matching.

### 3.6 Ethical Considerations

Ethics always starts with the researcher, who needs to be transparent and sincere in the research (Denscombe, 2016). After completing the research, researchers must also be convinced that they have done everything in their power to act ethically (Bryman, 2008).

A lot has been written about Lean from an optimistic perspective (Jørgensen & Emmitt, 2008), which could have resulted in organizations using Lean without actually understanding what it means in practice. The present thesis contributes to a more human and ethical understanding of Lean that can be helpful in its implementation in order to avoid the dark side of Lean, which dehumanizes employees (Salentijn et al., 2021).

In general, I have also followed the research ethics requirements prescribed by the Swedish Research Council (Vetenskapsrådet, 2022).

1. *The information requirement.* I informed the participants about the research when conducting empirical studies (Papers III and V). The participants knew that participation was voluntary and that they could cancel their participation if they wanted to. They were also informed about their role in the research.
2. *The consent requirement.* The participants in Paper III (questionnaires) and Paper V (interviews) decided on their participation in the research.

3. *The confidentiality requirement.* All empirical material has been treated confidentially and all data collected has been kept in a locked filing cabinet.
4. *The utilization requirement.* I have not and will not use participant information for anything other than research purposes, which the participants have been informed about.

Therefore, in this thesis, the ethical requirements have been considered and applied to the best of my ability.

### 3.7 Trustworthiness

Trustworthiness, or the truth value of qualitative research and transparency of the conduct of the study, is crucial to the usefulness and integrity of a study according to Connelly (2016). Shenton (2004) stated that trustworthiness of qualitative research is often questioned, perhaps because concepts of validity and reliability cannot be addressed in the same way as in quantitative research. Nevertheless, writers on research methods have demonstrated how qualitative researchers can incorporate measures that deal with these issues using other concepts (Bryman, 2008).

According to Lincoln and Guba (in Bryman, 2008; Connolly, 2016; Shenton, 2004), the concepts used in qualitative research can be: *credibility* (in preference to internal validity), *transferability* (in preference to external validity/generalizability), *dependability* (in preference to reliability), and *confirmability* (in preference to objectivity).

Connelly (2016) argued that the *credibility* of the study, or the confidence in the truth of the study and therefore the findings, is the most important criterion. In the present thesis, to achieve credibility, multiple sources of evidence were used. Where interviews and observations have been made (Paper V), my results have been fed back to the respondents for validation, which Bryman (2008) called response validation. Triangulation is another way to strengthen credibility (Denscombe, 2016; Shenton, 2004), and there are five different ways to triangulate: using different data collection methods, different information sources, different studies, different theories to analyse and confirm the results, or different researchers studying the same thing (Denscombe, 2016). The present thesis, with its five different studies, contains three of the five triangulation methods (Denscombe, 2016). As the pragmatic approach prescribes, my choice of data collection method has depended on the current problem and purpose. I have also used different information sources and used different theories to analyse and confirm the results.

*Transferability* refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings (Shenton, 2004). Bryman (2008) maintained that in order to increase transferability, it is important that the researcher makes as full descriptions as possible of the details that are part of a culture, which I have tried to do in this thesis. According to Yin (1994), case studies, especially single-case studies like the one in the present thesis, provide little basis for generalization from a scientific point of view, which can be seen as a concern. Yin also claimed that case studies can reach broad generalizations depending on motives of a study and how they are conducted. Since the thesis is a case study that concerns a concept rather than a specific organization, I see the thesis itself as transferable. For the same reason, Papers I, II and IV are transferable. Paper III (with ethical dilemmas) and Paper V (the case study in the supermarket) are not transferable because these studies involve interviews, questionnaires, observations, and other sources that are specific to that particular study.

*Dependability* refers to the stability of the data over time and over the conditions of the study (Connelly, 2016). It can be seen as similar to reliability in quantitative research, which is based on the assumption of replicability or repeatability (Shenton, 2004), but with the understanding that stability of conditions depends on the nature of the study (Connelly, 2016). According to Connolly (2016), a study of a phenomenon may be very similar from time to time. For example, in the present thesis, when a concept is studied, the study can be repeated, at least to some extent. Data can change over time, as in this case when websites have changed during the research period. In order to achieve high dependability, the research methods in the various studies have been described carefully and in detail, which is important according to Bryman (2008).

The last concept is *confirmability*, which is the neutrality or the degree to which findings could be confirmed or corroborated by others (Connelly, 2016). Given individual values, perceptions, different understandings and areas of knowledge, this is unrealistic. However, I have tried to act as correctly and credibly as I can based on the conditions that exist, and have acted in good faith. Nevertheless, according to Connelly (2016), in qualitative studies it is more important to have credibility and for the researcher to use the right method than to be able to repeat the study.

### 3.8 Methodological Reflection

Studying the methodological choices and the following consequences, there is one major choice that could be made early in the process. I did not have

a clear focus on what to actually study from the start. I started at one end because it happened to be in my interest at that moment. When I studied a certain topic in more depth, I immediately found new interesting angles and the ‘snowball’ rolled away in another direction.

So, in hindsight, I would like to have been more focused on what I wanted to do from the beginning to perhaps have acquired more profound result. Other than that, there is probably not much I would like to change. I have enjoyed the pragmatic path of research, going out to gather empirical material that I can later analyse against theories. On the other hand, this seemingly sprawling, pragmatic worldview has also made me find what I have found. Another more structured approach would probably have produced different results and thoughts.

Something that is not to the study’s advantage is that it ran over a long period of time – eight years. This means that previously used references have changed (for example, the Toyota global website) in the meantime. In relation to time, it can also be a negative point that the articles used in the first papers may not be completely relevant at the end of the process.

In this thesis I have used content analysis both in the ordinary quantitative way (measuring by counting words or meanings), but I studied also words from their cultural context and meaning; for example, defining the word *respect* in Japan and in the West. While something may have become lost in translation, I do not believe that the result of the content analysis would have been different if I had used only the quantitative method.

One last critical thought could refer to the choice of literature. Some authors, such as Coetzee et al., Liker, and Rother, have been used a lot in the thesis. I chose them because they have either studied Toyota for many years, as is the case with Liker and Rother, or have touched on the research that I am interested in. Some of the sources I use come from practitioner-oriented literature, which could be seen as less scientific and more applied. However, I have made the choice to broaden the field previously used to study Lean or RFP, but I could have made a greater effort to broaden the choice of literature.

## 4 Appended Papers

*This chapter presents a summary of the five appended papers, including the background, purpose, method, main results and conclusions. For extended presentation of methods, see Chapter 3. A more extended discussion of conclusions can be found in Chapter 5.*

### 4.1 Summary of Paper I

Ljungblom, M. (2012). A comparative study between Developmental leadership and Lean leadership – similarities and differences. *Management and Production Engineering Review*, 3(4), 45–68. doi:10.2478/v10270-012-0034-9

#### **Background**

A lot of empirical evidence during the last two decades shows that leadership matters and there is a wide consensus that leadership is essential to achieve organizational success. During the same period, several different theories and models have evolved that describe what a leader should or should not do in order to achieve best results for the organization.

#### **Purpose**

In this article, I wanted to explore whether there were elements of Lean leadership that could be useful to a developmental leader. Therefore, the purpose of the article was to compare developmental leadership (DL) with Lean leadership (Lean leadership behaviours, LLB) and evaluate the differences and similarities of the two models to achieve better results in an organization.

#### **Theoretical Scope**

The purpose of this paper was to explore whether it is possible to use differences from two models together to achieve better results when implementing Lean. The major chosen models were DL and LLB. For further theoretical presentation, see Paper I and Chapter 2.

## **Method**

Since the purpose of Paper I was to compare different types of leadership, a literature study was conducted with content analysis and pattern-matching in order to identify similarities and differences.

## **Main results**

The main results from the comparison show both similarities and differences.

The similarities between the models were:

- Both models contain behaviours and can be characterized by the key principle of respect for people.
- The purposes of both models concerned behaviours.
- Both models focus on role models.
- Both models describe that developing/value-creating leadership is a function of the frequency with which developing/value-creating leadership behaviours are used.
- Both models considers right or wrong behaviours.
- Both models highlights inspirational and motivational behaviours.

The major differences were:

- LLB had a purpose that clearly overrides the behavioural one: continuous improvement (CI) with a focus on eliminating waste.
- DL focused on making the leader aware of their own behaviour and, if needed, develop or change it, so their co-workers and organization would gain competitive advantages, while LLB focused on making leaders aware of what wrong behaviours can negatively impact the organization.
- DL focuses more on the relation between the leader and co-worker than LLB.
- LLB shows no difference between the concepts of management and leadership in its definition, which is often done in leadership research.
- The LLB definition also includes critical aspects of leadership.

The overall results showed that elements of Lean leadership could be useful for a developmental leader.

## **Main Conclusions**

The major conclusions in Paper I were that similarities in creating value and developing organizations were found in both models. However, the way in which they are to be developed differs. By merging the different models, the

differences, such as removing waste and CI found in LLB and the development of employees found in DL, can create additional understanding for a leader who wishes to develop an organization. When comparing DL and LLB, the strengths from DL is suggested to be integrated in LLB in order to succeed with Lean implementation.

A version of the paper was also presented at the 15th Quality Management and Organizational Development (QMOD) Conference 2012, September 5–7, Poznan, Poland.

## 4.2 Summary of Paper II

Ljungblom, M. (2014). Ethics and Lean management – a paradox? *International Journal of Quality and Service Science*, 6(2/3), 191–202. doi:10.1108/IJQSS-02-2014-0009

### **Background**

Organizations have diverse value systems when building their codes of professional ethics and code of conducts, such as doctoral and nursing codes, while Lean management has established base principles with different codes of professional ethics. In the public debate, ethical issues have been on the agenda with scandals in health care organizations and criticism against quality management systems in health care. According to Rundgren (2013), quality management systems in Sweden rely on quality methodologies and tools, rather than focusing on ethics and the human perspective.

### **Purpose**

The purpose of this paper was to investigate whether there is a contradiction when implementing the Lean principles in Swedish health care organizations that already have their own ethical code of conduct. The purpose was operationalized through the following questions:

RQ1: *How does the application of Lean Management in hospitals comply with medical ethics?*

RQ2: *In what way can Lean Management support ethics and value in those organizations?*

### **Theoretical Scope**

The aim was to investigate contradiction between the International Council of Nurses (ICN) Code of Ethics for Nurses and the principles of Lean management. For further theoretical presentation, see Paper II and Chapter 2.

## **Method**

Given the purpose of this paper, a literature study was conducted to investigate barriers and success factors when implementing Lean in health care organizations. Also, a comparison was made between the Nurses' code of ethics and the principles of Lean management. To categorize the results, content analysis and pattern-matching was used. For a deeper presentation of methods see Paper II and Chapter 3.

## **Main results**

The main results are:

- Research in Lean in health care does not involve ethics in its studies.
- There was a focus on quality methods and tools in healthcare organizations using Lean.
- Certain barriers (such as lack of knowledge about Lean, too many targets, and working in silos), and success factors (such as adapting Lean to the context, and transformational leadership) need to be taken into account before starting a Lean implementation.
- The concept of value in Lean had a different meaning than the concept of value in moral philosophy.
- When Lean is used in health care, the ethical approach was at a minimalistic level.
- If the implementation of Lean is to be successful, a Lean culture must be developed where everyone's commitment is a prerequisite.

## **Main Conclusions**

The main conclusions from the study show that it was hard to find connections between Lean in health care organizations and ethics in the articles examined. None of the articles mentioned anything about ethics. Most dealt with implementation and important issues to keep in mind when considering implementing Lean and not only in a health care context.

*RQ1: How does the application of Lean Management in hospitals comply with medical ethics?* Lean is not clearly defined in health care. The focus of Lean application in health care organizations lies in internal efficiency and cost control. While there did not seem to be a contradiction between ethical codes and health care when using Lean, the connections between them are not clear or implemented. As long as the ethical rules of healthcare are not considered and incorporated into Lean, it will be difficult to implement Lean in a healthcare organization.

*RQ2: In what way can Lean Management support ethics and value in those organizations?* Important barriers and success factors should be considered when implementing Lean. The gaps that have been found can be seen as a fresh start to increase awareness of ethics and to strive for a maximalistic point of view.

A version of the paper was presented at the 16<sup>th</sup> Quality Management and Organizational Development (QMOD) Conference 2013, September 4–6, Portoroz, Slovenia.

### 4.3 Summary of Paper III

Ljungblom, M. & Lennerfors T. T. (2018). Virtues and Vices in Project Management Ethics: An empirical Investigation of Project Manager and Project Management students. *Project Management Journal*, 49(3), 5–16. doi:10.1177/8756970586

#### **Background**

Although project management is commonplace, ethics is a relatively neglected issue in theories of project management. Virtue ethics has recently been put forward as an important aspect of project management ethics. Virtue ethics is assumed to be maximalistic more than minimalistic, and Paper III takes this assumption into practice.

#### **Purpose**

The purpose of the article was to contribute to the project of promoting virtue ethics in project management by exploring empirically if and how virtue ethics is used.

#### **Theoretical Scope**

In this third paper, ethics, with a focus on virtue ethics, and project management are accounted for; see Paper III and Chapter 2 for further discussion.

#### **Method**

In this paper, a literature study and questionnaires were used to explore empirically if virtue ethics was used by project managers and project managers students when responding to three ethical dilemmas. Content analyses, discourse analysis and pattern-matching were used to analyse the result. For extended description of the methodology, see Chapter 3 and Paper III.

#### **Main results**

The main results from the study were:

- The use of virtue ethics within project management is an unexplored area.
- Students and practitioners described their assessment of ethical dilemmas and motivation for ethical action as stemming from their character, including the promotion of virtues and the avoidance of vices.
- The importance of discussing the differences between minimalistic and maximalistic ethics, and reaching an understanding that both of them are necessary.

### **Main Conclusions**

The respondents naturally used the promotion of virtues and the avoidance of vices in their assessment of ethical dilemmas. Despite this finding, it is important to complement the rule-following, almost legalistic ethics in project management, with a discussion of virtues and promoting virtue ethics for project managers. It is also important to discuss the differences between minimalistic and maximalistic ethics, and find an understanding that both of them are necessary.

A version of the third paper was also presented at the 23<sup>rd</sup> Nordic Academy of Management Conference 2015, August 12–14, Copenhagen, Denmark.

## **4.4 Summary of Paper IV**

Ljungblom, M. & Lennerfors T. T. (2021). The Lean principle respect for people as respect for craftsmanship. *International Journal of Lean Six Sigma*, 12(6), 1209–1230. doi:10.1108/IJLSS-06-2020-0085

### **Background**

Lean, with its two key principles of continuous improvements (CI) and respect for people (RFP), is often used to improve organizations. The lack of RFP is seen as one of the biggest reasons for failure to implement Lean. Although this missing component has been known about for a decade, there is more failure than success in implementing Lean.

### **Purpose**

The purpose of the fourth paper was to reach a deeper understanding of RFP in order to facilitate Lean implementation in Western organizations outside Toyota.

The purpose was operationalized in three research questions

*RQ1: What is the meaning of RFP as defined in literature about RFP in Lean implementations?*

*RQ2: What is the meaning of RFP as defined by Toyota and connected to the cultural context of Japan?*

*RQ3: How can the RFP principle be accurately translated into other contexts?*

### **Theoretical Scope**

In this fourth paper, Lean, and craftsmanship were accounted for. For further theoretical presentation, see Paper IV and Chapter 2.

### **Method**

The hermeneutic approach was used to shift perspectives linking the *micro* (the RFP principle), with the *macro* (the cultural context in Japan). Two literature searches were conducted, and both qualitative content and discourse analysis with pattern-matching were used to analyse the result. For extended description of the methodology, see Chapter 3 and Paper IV.

### **Main results**

The main results were:

- There are a broad range of definitions of RFP.
- 61 per cent of the articles stated the lack of RFP in Lean implementations.
- It is important to focus on the invisible elements in Lean.
- The RFP framework concerns both the product and people value streams.
- The people value stream is critical in Lean implementations.
- At Toyota, the concept of *respect* in RFP is *ought-respect*; respect as due consideration.
- *Takumi* (in English loosely translated as craftsmanship) is the underlying understanding of the word *people* in RFP.
- RFP should be interpreted as *respect for craftsmanship* – RFC.

### **Main Conclusions**

*RQ1: What is the meaning of RFP as defined in literature about RFP in Lean implementations?*

The definitions of RFP are diverse: one based on building people is the most important value in RFP, the other that the importance lies in building cars.

*RQ2: What is the meaning of RFP as defined by Toyota and connected to the cultural context of Japan?* It was found that there may have been a linguistic error in the translation part of the RFP regarding the two words *respect* and *people*. It was also found that, at Toyota, the concept of respect in the RFP is ought-respect. The concept of *monozukuri*, Toyota's backbone, was examined together with the concept of *hitozukuri*.

*RQ3: How can the RFP principle be accurately translated into other contexts?* What we found to be most important, and not discussed in the earlier Anglo-phone literature, is the concept of *takumi*, a perfected form of craftsmanship, and the underlying understanding of the word *people* in RFP. RFP should be interpreted as *respect for craftsmanship* – RFC.

A version of Paper IV was also presented at Standing Conference on Organisational Symbolism (SCOS) and the Australasian Caucus of Standing Conference on Organisational Symbolism (ACSCOS), 2018, August 17–20, Tokyo, Japan.

## 4.5 Summary of Paper V

Ljungblom, M., Fredriksson, M. & Lennerfors T. T. (2022). The impact of the Lean Principle *Respect for People* – A Case Study of a Swedish Supermarket *Submitted to a journal in Feb 2022*.

### **Background**

Existing literature states that absence of the RFP principle is one of the main reasons for failure of Lean implementations. There is a gap in research about how the implementation is affected by the principle RFP and no in-depth case studies have been conducted on this topic.

### **Purpose**

The purpose of the fifth paper was to provide an in-depth case study of RFP and the lack of RFP in a lean implementation. In order to fulfil the purpose, the following research questions were addressed.

*RQ1: How can RFP and the lack of RFP be manifested in a Lean implementation project?*

*RQ2: What forgotten or downplayed aspects of RFP can be identified from an in-depth case study?*

### **Theoretical Scope**

This paper mostly used literature related to Lean and Lean retail. For further theoretical presentation, see Paper V and Chapter 2.

## **Method**

In this abductive case study, data were collected and included a literature study, unstructured interviews, participant observations during implementation, and diary notes. After the data sampling, the results were analysed with content analysis, discourse analysis, and pattern-matching. For extended description of the methodology, see Chapter 3 and Paper V.

## **Main results**

The main results were:

- It is important to have commitment and a clear understanding about Lean implementation.
- Leadership is important.
- The organization needs to be understood clearly before the Lean implementation.
- Allocating resources is of the utmost importance for enabling RFP.
- It is important to pay heed to contextual factors to the Lean implementation, such as the culture of the workplace.
- Respect for people as respect for craftsmanship could be an important complement to tools.

## **Main Conclusions**

*RQ1: How can RFP and the lack of RFP be manifested in a Lean implementation project?* The findings indicate that the lack of RFP generates negative results. The respondents felt that they were not developed, challenged, motivated, or trusted in their capabilities. Instead of removing waste from their work, it increased. This is expected according to RFP scholarship.

*RQ2: What forgotten or downplayed aspects of RFP can be identified from an in-depth case study?* The study shows that RFP is interrelated to leadership, resource allocation, organizational culture, and context.

A similar paper was presented at the 19th Quality Management and Organizational Development (QMOD) Conference 2016, September 21–23, Rome, Italy.

## 5 Discussion

*In this chapter the findings are discussed and analysed through described theories and concepts, and structured according to the research questions.*

### 5.1 What Understandings of RFP can enable Lean Implementations?

#### 5.1.1 The Origin and Literal Meaning of RFP

In Paper IV we tried to find the origin and literal meaning of RFP (Ljungblom & Lennerfors, 2021). We found that, before the Toyota Way became part of Toyota's global organization, the RFP principle did not exist explicitly. As mentioned in the theoretical section, when TPS was the leading system at Toyota, the key principles were *JIT* and *Jidoka* (see Table 2), and the main goal at that time was "to increase efficacy by consistently and thoroughly eliminating waste" (Ohno, 1988, p. xiii). As stated in the theory part, during the transformation from TPS to the Toyota Way in 2001, the two main principles of TPS were changed and became CI and RFP, with the latter divided into the two concepts of *teamwork* and *respect*.

*Teamwork* can be traced back to the original teamwork promoted by Ohno (1988) in TPS. Ohno argued that a leader's task is to train workers so that they can develop their skills, but also to teach them to help each other. The importance of teamwork was already recognized when *Jidoka* was one of the principles of TPS, and where people's involvement and contribution, empowerment and self-responsibility were needed (Chiarini et al., 2018; Liker, 2004). The machine could stop itself, but the system needed people who could react quickly to any failure that occurred in the form of root cause analysis. Consequently, *teamwork* became an important cornerstone of the whole system (Ohno, 1988).

*Teamwork* was old, but the principle of *respect* was new (Ljungblom & Lennerfors, 2021). Nothing in Toyota's TPS describes *respect*. However, Ohno (1988) described *respect* as something overarching, arguing that the main goal of TPS is to increase efficiency by eliminating waste, but also that *respect for*

*humanity* is equally important. In other words, *respect*, like *teamwork*, was important from the beginning, but did not have a definite place among the other principles.

It was not until Toyota went global that the need to highlight the word *respect* (and *teamwork*) became apparent (Ljungblom & Lennerfors, 2021). Respecting each other, working in teams and always doing one's best was, and still is, interpreted as a natural part of Japanese culture (Erthal & Marques, 2018; Oudhuis & Olsson, 2015) and religion (Taherimashhadi & Ribas, 2018). For example, Confucianism emphasizes loyalty to one's business organization and superiors, respect for age and seniority, and the importance of social harmony in groups (Rarick, 1994). With that in mind, Japanese employees should not even need to think about the key principle of RFP, as the principle and its content can largely be seen as *basic underlying assumptions* according to Schein (2017).

The translation part of the RFP may have had a linguistic error in the translation of the key principle (Ljungblom & Lennerfors, 2021). In Paper IV, we studied the concept and started with the word *respect*. When Toyota describes RFP, it turns out that they use the Japanese words *Ningensei Sontyo* (人間性尊重). The word *sontyo* (respect) is related to ought-respect, a respect that is a basic form of due consideration and is not related to individual employees' particular actions or performance (Ljungblom & Lennerfors, 2021). Respect for authority is also included in the concept of ought-respect. In Sweden, the verb *respect* includes both ought-respect and affect-respect at the same time. The context indicates which form of respect is meant. The Swedish word for respect, in the RFP for example, can describe both respect as a feeling of deep admiration for someone or something evoked by their abilities, qualities or achievements (affect-respect) and an agreement to recognise and comply with a legal requirement (ought-respect).

In Paper IV, we also studied the concept of the human side of the RFP principle (Ljungblom & Lennerfors, 2021); in other words, we studied the word *people* in RFP. In RFP, Toyota uses the term *Ningensei Sontyo* (人間性尊重). In English, *ningensei* would translate at respect for humanity/personality.

I argue that the entire key principle RFP could be interpreted as having a clear explanation of what the concept that Toyota uses means and does not mean (Ljungblom & Lennerfors, 2021). *Ningensei Sontyo* does not mean respect in people/persons; rather, it means respect for people's power such as thinking power and productive power.

To conclude this translation story, Paper IV (Ljungblom & Lennerfors, 2021) shows that RFP clearly addresses the productive and thinking forces of the people who work at Toyota. In other words, RFP at Toyota should mean respect for people's thoughts, skills and abilities rather than the actual individuals in the organization. This result can also be seen in the research, where Sartal et al. (2018) stated that Toyota reveals a particular form of respect and the respect is based more on practical than moral reasons, and its goal is to increase employees' commitment and their voluntary efforts and to draw out their full capabilities.

### 5.1.2 The Meaning of RFP

It has previously been discussed that the key principle of RFP was first written and described in the Toyota Way in 2001. However, the respectful way of treating people has been known since the beginning of the car company (Ljungblom & Lennerfors, 2021). Ohno (1988) stated when TPS was developed that TPS is not just a production system; its main goal is eliminating waste, along with the equally important respect for humanity.

In the transition to the Toyota Way, Toyota again demonstrated the importance of respect through the new key principle of RFP: "We respect others, make every effort to understand each other, take responsibility, and do our best to build mutual trust" (Toyota Global Site, 2020a). According to Toyota (Global Site 2020c), respect underpins relationships with colleagues and with others, and it is important that everyone is respected, both for what they contribute and for who they are, which includes everyone's ideas and cultural personal beliefs.

However, what is described on Toyota's website contrasts with the Japanese translation of the concept. According to the translation, RFP at Toyota is aimed at the productive and thinking powers of the employees rather than at the actual individuals in the organization, as the definitions on the website show. While I cannot tell the difference, it could be that the definition described on the website is part of Toyota's marketing and it wants to show itself at its best to stakeholders. In any case, what appears on the website is that Toyota wants to show that RFP is important in its organizational culture.

The importance of RFP is also visible when research in the field is studied (Ljungblom & Lennerfors, 2021). A large part of the literature indicates that the lack of RFP is one of the main reasons why Lean implementations fail in Western contexts. According to the literature review in Paper IV (Ljungblom & Lennerfors, 2021), 61 per cent of the articles deal with the lack of RFP. In other words, *fake* Lean can be seen as a major cause of failure, where the problem is that Lean is still seen as an add-on tool where the Lean culture is

missing, and commitment and interest to both listen to and involve employees is lacking (Kusy et al., 2015).

In the empirical study of a supermarket in Sweden, it was clear that Lean became an add-on tool and, therefore, also an example of *fake* Lean (Paper V, Ljungblom et al., submitted). The idea of the supermarket study was that I would follow and study a Lean implementation, but it turned out that I instead followed and studied an organization's failed implementation. Unfortunately, not only was the Lean implementation a failure in itself, but the organization also lost key people during the implementation due to the lack of RFP.

Paper V (Ljungblom et al., 2022) showed that the supermarket did not take care of its employees' knowledge, commitment or suggestions for improvement, and things that were promised by management were not delivered. For me as a researcher, it was uncomfortable to follow the Lean implementation with the downward engagement spiral among the employees. Employees went from being super-engaged and highly motivated to improve their organization to being disengaged and feeling total hopelessness. Some of the employees even resigned from their jobs.

Unfortunately, the Lean implementation developed into a shining example of *fake* Lean consequences and what it does to the organization and its employees. Taking Salentijn et al.'s (2021) expression of the dark side of Lean into account, the supermarket could absolutely be in the dark side, which means dehumanizing the employees (Chiarini & Brunetti, 2019) in favour of efficiency and the implementation itself.

In the fourth paper (Ljungblom & Lennerfors, 2021), we argue that it is remarkable that even though the missing RFP principle has been known for more than a decade, there are still more failures than successes of Lean implementations outside Toyota. How can that be? One answer may be a lack of understanding of the concept or difficulties involved in putting it into practice, as the literature on Lean may give the impression that CI is the most important principle in Lean implementations and not RFP as is actually claimed.

In the *Toyota Way*, for example, Likert (2004) described his 14 principles over 250 pages. Some of his principles are related to people, including Principle 9: *Cultivate leaders who understand the work thoroughly, live the philosophy and teach it to others* and Principle 10: *Develop exceptional people and teams who follow the company's philosophy* (see Figure 8). These two principles together are given 26 pages in the book, which is 10 per cent. By contrast, Womack and Jones' (2003) book contains nothing about RFP although it does describe examples of leadership and teams, which could be seen as somewhat

similar to RFP. Overall, just under 7 per cent of the book is devoted to describing leadership and teams. This small number of pages may show that what is expressed in parts of the literature does not match what is said about RFP. If RFP is as important as it is claimed to be, shouldn't the concept be given a more prominent place in the literature?

Another problem that may affect the lack of RFP is that there is no precise definition of RFP, as described in Paper IV by Ljungblom and Lennerfors (2021). It turns out that researchers in Lean use different definitions of the term RFP, which is reflected in the fact that the definitions point in different directions and have different meanings.

Overall, the definitions can be sorted into two categories, where the first contains definitions that are related to the idea of *first we build people, then we build cars*. Here, RFP is the underlying organizational atmosphere that enables effective problem solving and increases organizational performance (e.g., Oppenheim et al., 2009; Womack, 2008). This category also reflects the definition on Toyota's website.

The second category contrasts with the first and says: *Toyota builds cars, using people*. These definitions are more about enhance workers' involvement and their voluntary efforts and to draw out their full capacity (e.g., Bodek, 2008; Sartal et al., 2018), which is consistent with Toyota's Japanese meaning of RFP.

In Paper IV (Ljungblom & Lennerfors, 2021) Coetzee, Jonker et al.'s (2019) *true* meaning of RFP is described. Coetzee, Jonker et al. noticed the difficulties in a non-existent definition and conducted a systematic literature review to find the *true* meaning of RFP. They found that RFP meant:

- Implementing teamwork as the foundation of the organization
- Developing and challenging people
- Motivating people
- Developing people as problem-solvers
- Assessing people's safety in their daily tasks
- Removing waste from people's daily tasks
- Displaying people's capabilities by entrusting them with greater responsibility and authority

Another true meaning also emerged when Toyota was studied (Article IV, Ljungblom & Lennerfors, 2021). It was found that Toyota uses an underlying philosophy, *monozukuri* (making things), which has been around since TPS and is seen as the backbone of Toyota (Liker & Hoseus, 2008; Toyota Global Site, 2020c).

At Toyota, *monozukuri* means “an all-encompassing passion for innovating and doing things well” (Liker & Convis, 2012, p. 229). *Monozukuri* links to a long Japanese tradition and philosophy of creating quality products and services (Tiptarajan et al., 2019). The concept is not mentioned in Coetzee, Jonker et al.’s (2019) true meaning of RFP, either figuratively or literally. However, the concept of *hitozukuri* (making people) is visible, although it is not mentioned specifically. *Hitozukuri* refers to the process of cultivating the spirit (or human capital) of an artisan through continuous learning, apprenticeship, mentorship and self-reflection or in short, cultivating a quality person (Tiptarajan et al., 2019).

*Monozokuri* is more apparent in Coetzee, van Dyk et al. (2019), in which the authors merged the results of the true meaning of RFP into an RFP framework (see Figure 2 in Article IV) that integrated the *product value stream* and the *people value stream*. Coetzee, van Dyk et al.’s (2019) framework can be said to support both *monozukuri* in the product value stream, and *hitozukuri* in the people value stream.

Studying Coetzee, van Dyk et al.’s (2019) framework (see Figure 2 in Paper IV) shows that the framework is built up of *what-to-do statements*. Some of these statements are more concrete and tangible and can be more or less easily addressed by health and safety measures, such as:

- Take care of people’s safety – reducing or eliminating tasks that are dangerous, injurious to their health, and physically strenuous
- Take away non-value-adding tasks such as overproduction, over-processing, waiting and work environment measures
- Obtain more knowledge about how to prioritize orders and the production schedule

Other statements in the framework may be more complex to deal with. For example, how can one *involve*, *motivate*, *develop* or *challenge* one’s employees? On one hand, an employee may be involved through some kind of invitation (visible). It may be more difficult to describe and teach how to interact with, and behave towards an employee because some of the things that humans do are invisible and we are not even aware that we are doing them.

While I do not doubt that Coetzee, van Dyk et al.’s (2019) RFP framework is helpful for understanding and managing RFP, I believe it needs to be developed more, as it currently handles mostly *know-what* knowledge. To implement RFP I think a Lean leader needs more *know-how*; that is, how to motivate, involve, and develop employees, etc.

The supermarket in Paper V (Ljungblom et al., 2022) would really have needed *know-how*. Much of what was done during the implementation of Lean was in direct conflict with the philosophy that the supermarket was planning to implement. To-do lists and action plans were not followed up on, hardly any time was put into the implementation itself, no extra resources in the form of staff were allocated, and new parallel projects were started at the same time. According to Hines et al. (2020), the organizational Lean maturity was low in the supermarket, and in sum one can say that the management were *adding* waste to the employees rather than reducing it. The employees had tools and methods but did not know *how* to use them properly, which is common in an organization with low Lean maturity.

It has been shown for a long time that, when focusing on craftsmanship (Paper IV: Ljungblom & Lennerfors, 2021), *knowing-that*<sup>4</sup> (the knowledge of techniques, principles, codes and rules, *fake* Lean) is not sufficient. The absence of the all-important *knowing-how* was clearly demonstrated at the supermarket (Paper V, Ljungblom et al., 2022). According to Emiliani (2010), *knowing how* to do things in a good way is crucial; in other words, developing good skills, habits and practical knowledge to do *real* Lean (Emiliani, 2010). As suggested in Paper IV, it may even be the case that RFP can be interpreted as respect for craftsmanship, or RFC (Ljungblom & Lennerfors, 2021).

### 5.1.3 Relationships between the Visible and Invisible Elements of RFP

Sub-chapters 5.1.1 and 5.1.2 explain that the key principle of RFP can be difficult to understand given both definitional and translation issues. In my view, however, this is not enough because there is more to interpret and explore in the concept, such as the relationship between the visible and invisible elements. In order to explain the complexity of RFP, Schein's (2017) levels of culture will be used as a framework.

A culture, such as the Lean culture with the key principle RFP, can be analysed in three different levels according to Schein (2017). The term *level* refers to the degree to which the cultural phenomenon is visible to you as a participant or observer. These three levels vary from the very concrete, obvious manifestations that you can see and feel to the deeply embedded, unconscious, basic assumptions that are defined as the essence of the culture. Some even call it its DNA (Liker, 2004; Schein, 2017). The three major levels of culture are *artefacts*, *espoused beliefs and values*, and *basic underlying assumptions* (see Sub-chapter 2.3).

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<sup>4</sup> Knowing-that is an accepted expression in craftsmanship research. Although it is not directly equivalent to know-what, I use the term from the same starting point: knowing what to do.

I will interpret the key principle RFP through Schein’s (2017) model (see Figure 16) and start with the *artefacts*. According to Schein, *artefacts* are a visible phenomenon you can see, hear and feel. Structural elements such as formal descriptions also belong to this level. An example of artefacts in RFP, as a concept, is the principle itself. The RFP principle is what we first encounter and try to understand. We read RFP and each word makes an interpretation of what RFP means based on our own thoughts and understandings. A formal description, which is a part of Level 1, could be a definition of RFP. It could also be methods, tools or standards that support the key principle RFP and the human side of Lean, such as questionnaires used in employee interviews, various templates used in work meetings, but also routines to form an interview or a meeting.

The second level is *espoused beliefs and values* (Schein, 2017). Like Level 1, most of this second level is visible. The second level of culture *espoused beliefs and values* concerns how the different individuals’ (members of the organization) own thoughts and values are gradually transformed. For example, the RFP framework (see Figure 2 in Paper IV), philosophy and goals fall into this level. The second level also contains our agreements in the organization, such as how we treat customers, set priorities or define different roles in the group. *Espoused beliefs and values* often leave large areas unexplained. This level (and also the first level of course) leaves us with a feeling of only understanding a small amount of the organizational culture.

To achieve a deeper understanding of the culture and to decipher patterns, we need to understand the third level: *taken-for-granted underlying assumptions*. Unlike the other two levels in Schein’s (2017) model, the third level is below the surface and what takes place at this level is invisible (see Figure 16).

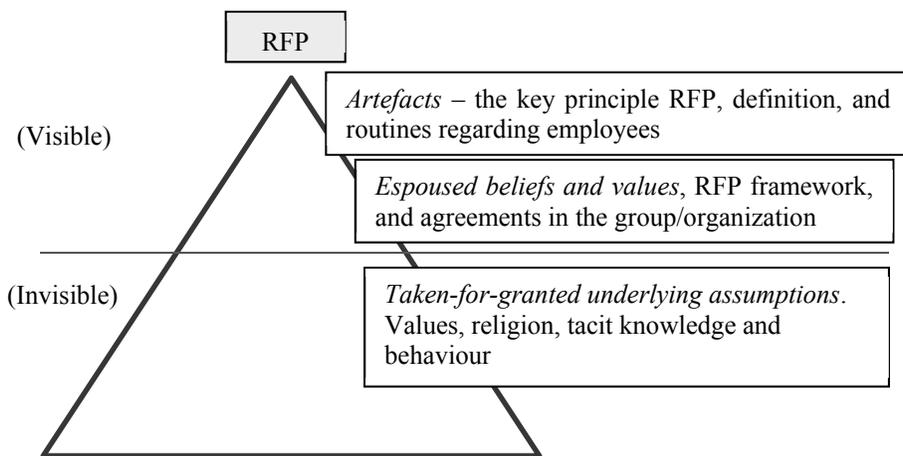


Figure 16: The key principle RFP in three different levels.

According to Schein (2017), when an organization's problem solving works, this will be taken for granted and will become a natural way of working/problem solving for both groups and the organization. This is an example of a *basic assumption*. In addition, if the members belong to the same religion and/or have the same moral system, they reinforce each other and are taken for granted (Level 3). One could say that Level 3 is the result of an organization's repeated success in changing beliefs and values. Now, according to Schein (2017), a mental map or a shared world of thought has been created.

Toyota describes the process that led to the establishment of TPS in its Code of Conduct, stating that Toyota's philosophy has been passed down from generation to generation throughout the company. In Schein's eyes, that can mean that artefacts have become taken-for-granted assumptions over the years. It could be the same with RFP. Nevertheless, we must remember that the principle RFP was a new key principle at Toyota. Nothing in Toyota's previous TPS describes respect. As can be seen in Paper IV (Ljungblom & Lennerfors, 2021), it was not until Toyota went global that the need to highlight the word *respect* emerged.

When RFP is studied through Schein's (2017) model, it is clear that RFP is present at all of the various levels, which can make RFP difficult to describe, understand and use, especially if we not are aware of the levels.

#### 5.1.4 Summary

In this sub-chapter, I have concluded that it can be difficult to grasp RFP because the concept itself can be seen as threefold. *The first part* addresses the ambiguity of what RFP actually means, given its Japanese origin and how the words can be understood in different contexts. *The second part* of understanding the concept concerns the research and how RFP is described in various definitions, for example. *The third part* of understanding RFP deals with the three different cultural layers in which RFP resides, and where some elements of RFP are visible and others are invisible.

According to RQ1 (*What understandings can enable Lean implementation?*), it may not be a matter of using all three of the described parts of the RFP. Parts 1 and 2 – which are that RFP is difficult to grasp and splits in different directions – might be hindering rather than helping an organization. As I see it, the part that matters most for an organization is the different cultural layers that RFP resides in.

*Artefacts*, the visible first level in Schein's (2017) model, are precisely about definitions, meaning and decided practices in the organization, as in the first

part of the RFP. However, instead of dealing with the RFP's ambiguities in language and splintering definitions, the organization itself needs to define what the RFP and the different words in the concept (respect and people) mean to them. The organization needs to find its own definition to rely on.

The second level, which is also mostly visible (*espoused beliefs and values*) may contain the RFP framework if agreed in the group, together with other descriptive documents and agreements. Once the visible elements of the RFP have been defined and understood by the Lean-implementing organization, it is then a matter of teaching, creating, empowering and developing the employees so that they can later use the various methods and available tools.

Previous research (Coetzee, van Dyk et al., 2019) has provided methods and tools that can be used in a Lean implementation, such as both the *RFP framework* and the *people value stream*. However, I am convinced that the *how* is missing in those methods. *How* can the organization develop and empower people? *How* can the organization implement Lean in a respectful way? What exists now deals mostly with *what* to do, what is visible?

The organization must also learn to study the *how* and thus create an understanding of why things turn out the way they do when we do what we do. This is about getting a grip on the third and invisible level of Schein's (2017) model – *taken-for-granted underlying assumptions* – and trying to understand it. RFP could be explained as a how-facilitator that can enable Lean implementation, where CI is implemented in a *real* Lean way, which means that waste is eliminated while people in the organization feel seen, enlightened and knowledgeable.

Conclusions regarding what understandings of RFP can enable Lean implementations, are as follows:

- There are both visible and invisible elements of RFP.
- An organization needs to sort, define, study and create knowledge about the visible elements.
- An organization also needs to find the *basic assumptions* in order to understand the invisible parts of the RFP and to find the *how*, and why it is the way it is.
- Organizations need more know-how (instead of know-what) to create *real* Lean.
- RFP can be seen as *the how* – *How* we implement Lean.

With that said, the focus now shifts to the invisible elements of RFP: ethics, leadership, and culture.

## 5.2 What Understandings of Ethics, Leadership, and Culture can enable Lean Implementations?

Rother (2013) and Hines (2010) stated that it seems to be hard for Toyota employees to explain the unique thoughts, routines and acts at Toyota. It is just their normal way of work; it is within the Toyota culture. For example, if you asked someone what they did at work today, they would probably describe the duties they performed. However, some of the things we do without noticing them, such as breathing, would probably not be included and can be an example of these invisible acts/behaviours at Toyota.

The behaviours described above are called *enabling aspects* by Hines (2010) and *underlying assumptions* by Schein (2017). The Toyota culture includes behaviours, words and routines that the employees might not be able to describe. The invisible elements may have a deeper meaning in the Japanese context, which may be difficult for an employee in another country to understand and grasp. It may take an extraordinary effort on the part of the individual to understand the RFP and possibly learn new routines and new behaviours (see Figure 1 in Paper IV).

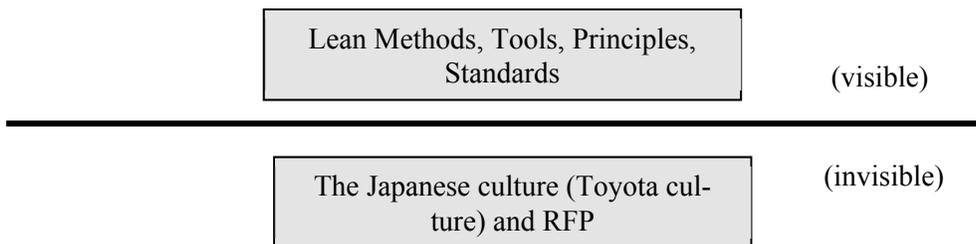


Figure 17: Understanding Lean and the connection with the national culture (Ljungblom & Lennerfors, 2021).

Hines' (2010) SLIM model was presented in Sub-chapter 1.1 (see Figure 2). In the figure, the invisible elements are defined as strategy and alignment, leadership, and behaviour and engagement. Bortolotti et al. (2015) termed those *the human-related elements* in Lean.

Schein (2017) described the human-related elements as the building blocks that form the organizational culture, while Grigg et al. (2020) stated that the critical importance of underlying organizational values specified in *leadership, culture and behaviour* is widely acknowledged. Grigg et al.'s (2020) statement is one of the reasons why I have changed the words below the surface in Hines' (2010) model. The new words are *culture* (strategy and alignment) and *ethics* (behaviour and engagement), as in Figure 18. Further reasons

why the words in the model have been changed are provided in Sub-chapter 5.2, where each concept is discussed.

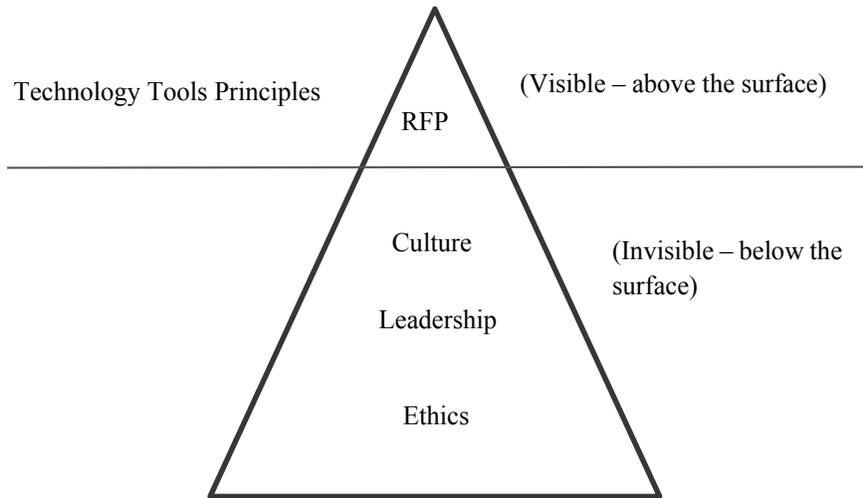


Figure 18: The invisible elements in Lean, and RFP.

In this chapter, the invisible elements of ethics, leadership and culture will be analysed and discussed based on RQ2: What understandings of ethics, leadership, and culture can enable Lean implementations?

### 5.2.1 Culture

Before discussing the concept of culture itself, it is necessary to explain why Hines' (2010) words *strategy and alignment* have been changed to *culture*. According to Schein (2017), culture is a powerful, latent and often unconscious set of values, beliefs, thoughts and behaviours that are learned within a group or organizational context. How the leadership of the organization chooses to lay out its strategy and how the people in the organization try to work with the strategy, and also how they adapt, is part of the organization's culture. Since culture is also, together with leadership and behaviour, seen as an important underlying organizational value according to Grigg et al. (2020), the word *culture* was selected.

Every culture consists of a set of values and beliefs shared by the members of a group (Schein, 2017). In Paper IV (Ljungblom & Lennerfors, 2021), it can be read that organizational shared values are important for effectiveness and for building trust (Marksberry, 2011; Philipson, 2011), and the most successful companies create *consonance* (Philipson, 2013).

According to Philipson (2011), when *consonance* occurs, the values of employees are in keeping with the values of the organization, regarding tradition, business idea, vision, and business goals. The culture becomes strong and creative and it is easier to communicate effectively and reach consensus because employees listen to each other and respect and trust each other's knowledge. Organizational consonance seems to be an excellent start when an organization is planning to implement Lean. However, the question is, what values are to be shared?

Like any other culture, Lean culture is specified and contains values, rules, actions and history within which people are the moral representatives of the culture to which they belong (MacIntyre, 2013). As Paper IV shows, Lean has its origins in Toyota, which originated in Japan (Ljungblom & Lennerfors, 2021). Therefore, TPS should have been shaped by the Japanese culture and religion (Taherimashhadi & Ribas, 2018; Wittrock, 2015), which is why it can be said that Lean is partly a product of Japanese values and traditions. If Lean is to be implemented, it should be Lean values, along with the organization's other values, that need to be shared in the organization.

In order to clarify the Lean values and also explore Lean's connection to Japanese values and traditions, the key characteristics of Lean will be reflected through Japanese culture and traditions (Wittrock, 2015). The purpose of doing this is to demonstrate the importance of whether if Lean is to be implemented in a different culture with different traditions, employees may need other things than employees in Japan; in other words, the *invisible cultural elements*.

The first characteristic, *long-term orientation* (Wittrock, 2015), is visible in the Toyota Way and in Liker's (2004) first principle: *base your management decisions on a long-term philosophy*. However, the concept of long-term orientation can be linked to Japanese religions and traditions, as long-term orientation is prominent in both Buddhist rebirth and Confucian ideas of preserving order and respecting elders (Wittrock, 2015). In Shintoism, the long-term orientation can be shown in rituals, such as when employees celebrate the founder of the company. The long-term perspective advocated in Lean can clash with Western values, which are more about short-term thinking and quick economic gains (Dahlgard-Park, 2011; Oudhuis and Olsson, 2013; Wittrock, 2015).

Paper V (Ljungblom et al., 2022) provides clear examples from the supermarket (quick-fixes and no plans) of when long-term thinking has not been used, and the consequences thereof. Employees felt bad, lost engagement, and some even quit. The principle among long-term thinking is visible, but the mindset

and values around can be seen as one of the invisible cultural elements of the RFP.

The second key characteristic is *banish waste and serving society* (Wittrock, 2015). Prohibiting – or, rather, eliminating – waste is one of the first values to be enshrined at Toyota and is also perhaps the best-known value when talking about Lean. Lean *is* about eliminating waste and, from that perspective, it is very visible. However, banishing waste is much older than Toyota and can be seen in both a Zen society and Confucianism, as frugality and avoidance of waste are hallmarks of both philosophies. The frugality disposition is also directly linked to the service of the customer as a representative of society. Employees serve society when they voluntarily work overtime if the daily quota has not been reached due to problems on the production line, as loyalty is a hallmark of both Buddhism and Confucianism. The figure of the Buddha as a hard worker characterises the central figure of the Japanese Zen tradition, as well as the Buddha's truth of seeing reality unfiltered and seeking the mindful discipline to continually improve oneself over time (Chiarini et al., 2018).

Paper V (Ljungblom et al., 2022) identifies elements of key characteristics to *banish waste and serve society*. The employees really tried to make the implementation work and were extremely loyal to the company. One of the positive outcomes of the Lean implementation was the reduction of waste. The supermarket saved both money and time with the actions taken in the store. In the end, however, it turned out that instead of reducing waste from the employee's tasks (such as poor planning, inability to allocate time, and disobedience), waste increased due to the lack of RFP.

In the studied supermarket, employees used their own free time to complete their tasks in the Lean implementation, which was unusual in the organization. The organizational culture was and still is (as in most Western countries, probably) such that the employee is paid for his/her overtime. However, in Japan it is common to work overtime, partly unpaid, if tasks are not completed on time, and this may perhaps be part of the dark side of Lean that Salentijn et al. (2021) described. While this is something that should perhaps not be transferred to other countries, it may partly explain why Toyota has been so successful.

Eliminating waste, which is one of the key characteristics *banish waste and serving society*, is on visible. However, eliminating waste also has invisible cultural elements because the concept is part of Japanese culture that needs to be considered. The second element, *serving the community*, is not as obvious to transmit. Important values such as loyalty and duty must not get out of hand.

The third key characteristic is *CI through practical knowledge* (Wittrock, 2015). CI is one of the key principles of Lean and is also the one that gets the most focus in Lean implementations in general, and also in the implementation in the supermarket (Ljungblom & Lennerfors, 2021). Lean was actually an add-on tool in the organization and RFP was not on the map. CI also permeates Liker's principles (see Figure 8); in other words, CI is visible.

The emphasis on CI and kaizen in Lean, and knowledge of these practices, aligns well with the religious practice in Japan for centuries (Wittrock, 2015). The methods aim at personal mastery and skill, as described in Confucianism, Buddhism and Shintoism. CI is also about teaching and learning every day, as advocated in Confucian thought, where learning emphasises the practical value of knowledge and skills. According to Rarick (1994), Confucianism begins with individual growth and development through learning, knowledge and self-improvement, and the proper development of the individual is a Lean key issue, according to Meirovich and Romar (2004). Lean's *Genchi Genbutsu* (go and see for yourself) is an example of practical learning (Wittrock, 2015), and I argue that *monozukuri* and *hitozukuri* are also examples of both learning and skills.

Paper IV (Ljungblom & Lennerfors, 2021) describes Toyota's philosophy of craftsmanship (*takumi*). In the West, it is said that it takes 10,000 hours of practice to become an expert, to become the best. In the Lexus video (Lexus Takumi, 2020), Toyota says it takes 60,000 hours to achieve *takumi*. Whether it is 10,000 or 60,000 hours of practice, the view of this perfected form of craftsmanship (excellent skills) is central to Toyota. This is the central implication of the RFP principle; namely, that it is not respect for just any people but respect for craftsmen who are trying to strive for *takumi*.

Unlike Toyota, the craftsmanship (that is, the skill of the employees) was not respected by the supermarket managers, because, for example, a person trained in quality (a team leader) was not allowed to participate in the decisions made and not listened to. That individual was one of those who resigned (see Paper V, Ljungblom et al., 2022).

However, this way of learning, *takumi*, the kata-like perfection and desire to improve oneself along with the tradition of eliminating waste, is essentially Japanese and is also part of the invisible cultural element to take into account and can be linked to the fourth key characteristic: *perfection through standardization* (Wittrock, 2015).

Standardization is visible in Liker's (2004) principle *standardized tasks are foundation for continuous improvement* (see Figure 8) and is a well-known

Lean tool. Standardization was promoted in the 1920s by the Japanese government, which also brought quality and standards, both in Japanese society and in the production of, for example, housing materials and clothing (Wittrock, 2015). The standardization now seen in Lean is very much in line with religious rituals for personal development and perfection, as practised in Buddhism and in the house codes (from the codes of the samurai household), which imply discipline, rituals to ensure quality and to clean. I have not seen it anywhere but Toyota's 5S tool<sup>5</sup> could very well originate from the old traditional house codes.

Paper IV (Ljungblom & Lennerfors, 2021) shows that structure and standards are recognized in the Japanese kata. Kata originates from predetermined movement patterns in budo (martial arts) that are transmitted from master to student and then used in everyday life. Kata practice begins at an early age and touches on everything from child baptism to parties, dating and funerals. Use of kata as a child must be very helpful when repetitive patterns and standardised processes are used later in working life, for example at Toyota.

Paper V describes how the employees develop and use standards in their organization. Standards was another of the Lean tools that worked, at least in the beginning. When the follow-up interviews were conducted in the organization, it turned out that most of the standardization had begun to go back to old non-functioning routines. Standardization and perfection are additional invisible cultural elements that need to be considered.

The fifth key characteristic, *create flow and harmony in your efforts* (Wittrock, 2015), is also visible in Liker's (2004) principle *continuous process flow to bring problems to the surface* (see Figure 8). The efforts to create flows and aligning processes (such as takt-time) in Lean can be seen as a symbol of creating harmony: everything in the right place at the right time, which is a prominent Confucian value. Smoothing and avoiding friction is usually an important issue in Japanese culture, along with discipline, harmony and reverence for ancestors. Creating harmony is a goal in Confucianism (Rarick, 1994) that is linked to strong personal discipline, which also blends well with Buddhism (Wittrock, 2015). Creating harmony was not really something that the supermarket knew about. Paper V (Ljungblom et al., 2022) discusses the frustration and hopelessness the employees experienced when the management did not listen to or respect them.

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<sup>5</sup> Originating from five Japanese words (the English word in use of 5S) – *Seiri* (sort), *Seiton* (stabilize), *Seiso* (shine), *Seiketsu* (standardize), and *Shitsuke* (sustain). The 5S tool is about standardizing a workplace by cleaning, structuring, etc. (Sörqvist & Bergendahl, 2021).

Japanese Zen Buddhism is also based personal reflection on daily life (*hansei*), especially the benefit of others, and the context in which we live. Toyota uses *hansei* to deal with problematic situations (Liker & Morgan, 2006), to create harmony (Wittrock, 2015). *Hansei* is beginning to be practiced by young children, who are asked to do it if they have done something wrong, reflect, come back and then express how deeply sorry they are for the failure, how they will improve and never do it again. The adult version, for example in a Lean organization, takes responsibility for the problems, is genuinely sorry and explains how to avoid repeating the mistake, often with a written plan. *Hansei* is the driven part of Kaizen (CI) (Liker and Morgan, 2006). I argue that the fifth key characteristic, *creating flow and harmony in your efforts*, should also be considered and seen as an invisible cultural element.

Another cultural problem that can arise during Lean implementation is the terms that Toyota (and Lean) use for its principles, methods and tools, previously in TPS and now in the Toyota Way. The terms were chosen because they are simple, common Japanese words (such as *Kanban*<sup>6</sup>, *Muda*<sup>7</sup>, and *Kaizen*) and were therefore selected to facilitate understanding and avoid misunderstandings by the Japanese employees (Sörqvist & Bergendahl, 2021). The terms are well known in the Lean concept in the Western world, but need to be learned and understood by those who do not understand Japanese. The described translation problems that may arise can also be an invisible cultural element that needs to be addressed.

The importance of culture, and understanding it, became visible when Toyota expanded its operations in all countries of the world (Ljungblom & Lennerfors, 2021). Toyota developed TPS into the Toyota Way, and suddenly encountered problems that had never been encountered before. Written documents were now needed to try to explain what was had been done at Toyota in Japan.

Several researchers (e.g., Erthal & Marques, 2018; Oudhuis & Olsson, 2015; Pakdil & Leonard, 2016; Taherimashhadi & Ribas, 2018; Wangwacharakul et al., 2014; Wittrock, 2015) have considered that the significant cultural differences between Japan and Western countries (see Table 1 and Figure 11) may be crucial in Lean implementation. Pakdil and Leonard (2017) even argued that Lean practices may be ineffective in countries outside Japan due to different cultural values.

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<sup>6</sup> *Kanban* literally means sign board. It is a type of scheduling system that indicates what to produce, when to produce it and how much to produce (Liker, 2004).

<sup>7</sup> *Muda* means waste (Sörqvist & Bergendahl, 2021).

Other researchers have pointed out the differences in culture. Nakane, for example (in Erthal & Marques, 2018), highlighted the Japanese cultural and historical influence on organizational management, arguing that it may not be transferable to other settings. Some Japanese Toyota managers have also pointed out the cultural differences and described the difficulties that can arise (Sugimori et al., 1977).

However, Oudhuis and Olsson (2013) and Wangwacharakul et al. (2014) argued that it would not be impossible to implement Lean in Swedish organizations, for example, but it would involve a clash between Japanese and Swedish culture and between Japanese and Swedish core values. Both studies showed differences between Japanese and Swedish values – which I term invisible cultural elements – that should be taken into account when a Swedish organization embarks on Lean work (see Figure 11).

Lean is to be implemented in a Swedish culture or not, it is necessary to study one's own organization first and try to understand how it works/does not work. This was totally missed by the supermarket, which jumped on the Lean journey without proper planning and the results were consequently poor (Ljungblom et al., 2022). Organizational analysis is necessary to adapt the Lean implementation to the development of the organization, as shown in Papers II, IV and V.

Factors have been identified that facilitate Lean implementation and are also fundamental to implementation, such as an embedded culture of quality management (Chiarini & Brunetti, 2019), committed managers (Yadav et al., 2017) and a willingness to change (Oudhuis & Olsson, 2015), and might also be studied, such as quality management. Japan has a much longer tradition of quality development in its organizations, and it is not difficult to understand why they have been called experts in this field (see Table 1). Toyota is already in Phase 3 of the Lean maturity framework (Hines et al., 2020), while most organizations in the West, such as the supermarket (Ljungblom et al., 2022) are trying to implement and relate to Phase 1. In other words, it is necessary to first identify and capture the organization's challenges, processes, and unique factors (Amaro et al., 2020) and also measure the Lean maturity of the organization (Hines et al., 2020).

### **5.2.1.1 Summary of the Cultural Part**

The Lean toolkit and its principles have been created in a Japanese organizational environment influenced by Japanese culture, religion and traditions. Japanese customs, practices and traditions do not come naturally to people in other countries; for example, they have probably not been trained in *kata* or *hansei* and have probably not grown up with Confucianism, Buddhism or Shintoism, or learned to speak Japanese.

Some of the cultural differences are visible, such as written structures, processes, routines (artefacts) and goals, visions, definitions (espoused beliefs and values), while many others are cultural values (basic underlying assumptions) that are more difficult to grasp because they are often invisible. For those of us who do not work at Toyota in Japan, these invisible cultural elements of the RFP first need to be highlighted and then written down and then tried to be learned step by step. It has been shown that Lean is less about tools, methods and principles than about procedures and routines – patterns of thought and action – and by repeating them daily, people from cultures other than Toyota's, may be able to achieve the desired results.

Japan's cultural advantage in terms of quality is something that also needs to be highlighted and understood. Many organizations in the West have barely reached Lean maturity Phase 1, while Toyota is well into Phase 3 and still feels it can improve.

Making these invisible cultural elements visible consists primarily of noticing the differences. It is then important to educate that the differences in culture are understood and managed if necessary; to create an understanding of why, for example, standards are needed in an organization.

Based on RQ2 (*What understandings of ethics, leadership and culture can enable Lean implementations?*), the conclusions regarding culture are as follows. The organization needs to understand:

- The Lean culture and its connection with the Japanese culture.
- The importance of reaching consonance in the organization.
- The need for an organizational analysis as a first step before Lean implementation, which should show what the organization can maintain, develop or reject, in terms of cultural elements such as values, routines and principles.
- The principles regarding *kata* and *hansei* and letting the employees practice this.

### 5.2.2 Ethics

Values are a comprehensive part of our everyday lives because a value is something that indicates what an individual, group, organization or culture considers worth striving for. There is a link between behaviours and values since our behaviours are influenced by our values and when we behave, we behave ethically. In other words, ethics is something fundamental that should be discussed in all fields of research, including Lean.

Grigg et al. (2020) argued that the underlying values of Lean are leadership, *culture and behaviour*. Even Hines (2010), in his SLIM model (see Figure 2), described one of the invisible elements below the surface as *behaviour and engagement*. As ethics are important and ever-present in our behaviour, I have modified the SLIM model so that behaviour and engagement become ethics. Since engagement is a value, it is related to ethics as well (see Figure 17).

In Sub-chapter 1.2 I argued that Lean research does not include new perspectives and horizons, and Paper II (Ljungblom, 2014) demonstrated a lack of interest in ethics when studying Lean research. In the 2014 study, I found no articles on Lean and ethics. The literature search for Paper II was for a healthcare context, so this may have been a limiting factor. In February 2022, I conducted a simple Google Scholar search using the same three search terms as in the 2014 study (Lean, ethics, health care, in the title) and it resulted in no articles. A second attempt, using only the words Lean and ethics (also in the title), showed nine articles, two of which were my own. There is still a gap in this area, although interest in ethics in Lean research has increased somewhat. This gap needs to be filled with research on ethics in a Lean context, and that is another reason why ethics is highlighted in this thesis.

Paper II (Ljungblom, 2014) and Paper III (Ljungblom & Lennerfors, 2018) describe minimalistic and maximalistic ethics. Both forms of ethics are used to tackle issues such as management and professional ethics. Minimalistic ethics is described as a way to avoid doing wrong; in other words how not to act incorrectly (Philipson, 2004). This kind of ethics is visible and can be seen as a set of particular obligations – a code of conduct or other principles to follow.

Maximalistic ethics is more an affirmative ethic where the person becomes a role model rather than just doing his or her duty. These acts cannot be forced by the organization, like the minimalistic ones. In this view, the person wants to do good actions and have a good character. The result from Paper II (Ljungblom, 2014) showed not only the lack of ethics. Paper II also stressed the importance of ethical awareness and striving for a maximalistic ethical approach to achieve better results in the organization. The result in Paper III (Ljungblom & Lennerfors, 2018) showed that maximalistic ethics can be seen as virtue ethics.

There are also ethical approaches other than virtue ethics, such as consequentialism and deontology, which can be seen as less abstract and easier to understand (Rachels & Rachels, 2015). All ethical approaches claim that ethics is part of a person's actions. Unlike consequentialism and deontology, virtue ethics emphasises the person rather than the acts and looks to the importance of developing good character.

Virtue ethics also does not aim to give advice on how to behave in a given situation, as deontology and consequentialism do, but rather provides a view on how ethics can be understood. Rachels and Rachels (2015) described this as a processual, dynamic interaction between people and acts. The very fact that a person can shape his or her ethics and character is one of the reasons why virtue ethics (maximalistic ethics) can be considered more applicable to Lean than any of the other ethical approaches.

Another reason for selecting virtue ethics is the connection to Japanese religions and philosophies (see Sub-chapter 2.3). Confucianism, which is seen more as a philosophy than a religion, has shaped the Japanese to some extent. Confucianism is about character and the five relationships (Rarick, 1994) that form the basis of social interaction in Japanese society: loyalty to people above you, closeness, distinctions in duty, mutual trust, and respect for age and seniority. While there are undoubtedly significant differences between Confucianism and Western virtue ethics, there is a *prima facie* similarity between them in their concern for character and the question of *what kind of person should one become?*

Japanese Zen Buddhism also has virtues that strengthen character: self-control and being of service to others, for example (Rarick, 1994). The Buddha's truth of seeing reality and seeking the conscious discipline to improve oneself over time may also be an important element that shaped Japanese culture. Having said this, virtue ethics can be described as being similar to belief systems in Japanese culture and religion.

In Paper III (Ljungblom & Lennerfors, 2018), project management students and project managers were asked to answer a questionnaire with three ethical dilemmas. The study showed that the respondents used virtue ethics (such as courage, truthfulness and moderation) and avoidance of vices (such as the weakness and cowardice of the will). The study showed that the respondents referred to character traits to support their ethical decision-making, at least when they describe ethics in a text.

To understand RFP, one must clearly understand what employees do or do not do (Ljungblom & Lennerfors, 2021). *Hitozukuri* (making people) refers to the process of cultivating a craftsman's spirit through continuous learning, apprenticeship, mentorship and self-reflection; in short, cultivating a quality person (Tiphtharajan et al., 2019). Paper IV (Ljungblom & Lennerfors, 2021) presented Toyota's *hitozukuri*. *Hitozukuri*, or how to develop people, is based on employees understanding the content of the job, being confident in their success, being eager to take on new challenges, offering a space to think and seeing themselves making progress. *Hitozukuri* can also be related to Japanese

religion by seeing the blessed power of ancestors and humans (Shintoism), benefits to others (Zen Buddhism) and the development of the individual (Confucianism). As I see it, *hitozukuri* is an invisible ethical element at Toyota and in the Lean culture that must be taken into consideration.

Theories of craftsmanship, such as Toyota's *monozukuri* or *takumi* (Paper IV, Ljungblom & Lennerfors, 2021) consider skilled work with physical and physical involvement in things. The nature of this commitment is what leads to good quality (Coeckelbergh, 2012). As can be read in Paper IV (Ljungblom & Lennerfors, 2021), craft means practical knowledge: *knowing-how*, rather than *knowing-that*. Knowing-how is often seen as embodied habits (basic underlying assumptions), which are often tacit knowledge and is a central part of the invisible ethical elements.

In focus of craftsmanship, it has been known for a long time that knowing-that (the knowledge of techniques, principles, codes and rules, *fake Lean*) is not enough (Ljungblom & Lennerfors, 2021). The important thing is to *knowing-how* to do things well; in other words, develop good skills, habits and practical skills to achieve *real Lean*. The good character in craftsmanship should not only be understood in a technical sense but also in an ethical sense. Therefore, craftsmanship can be seen as ethics (Ljungblom & Lennerfors, 2021), and can also be a part of the invisible elements of RFP.

### **5.2.2.1 Summary of the Ethical Part**

Ethics are fundamental to people's everyday lives because our values influence our decisions and actions. There are different ethical approaches, such as virtue ethics, consequential ethics and deontology. Virtue ethics do not aim to give advice on how to behave (like the other two), but instead give a view on how ethics can be understood and that people can shape their own ethics, their own character, which is why virtue ethics can be considered more applicable to Lean.

The maximalistic ethics, being a role model and having a good character, can be seen as virtue ethics, as opposed to the minimalistic ethics, which is more a set of specific obligations – a code of conduct or other principles to follow. Ethical awareness and striving for a maximalistic ethical approach is important to achieve better results in the organization.

Virtue ethics are similar to belief systems in Japanese culture and religion, mainly in terms of concern for person and character. *Hitozukuri* can also be related to Japanese religion and can be seen as an invisible ethical element in the Lean culture that needs to be taken into account.

Toyota's monozukuri or takumi (craftsmanship) lead to good quality. Craftsmanship is about knowing-how and is often seen as embodied habits (basic underlying assumptions), tacit knowledge, and is also a central part of the invisible ethical elements.

Based on RQ2 (*what understandings of ethics, leadership and culture can enable Lean implementations?*), the conclusions regarding ethics are as follows. The organization needs to understand:

- Virtue ethics (maximalistic ethics), which can be seen as more applicable in a Lean context and useful in a Lean implementation.
- The need to understand the invisible elements of RFP, craftsmanship and hitozukuri, as part of the virtue ethic.
- The importance of knowing-how, which is often tacit knowledge and a central part of the invisible ethical elements.

### 5.2.3 Leadership

When Lean is to be implemented, it has been shown that leadership and how the implementation itself takes place is a critical factor for the implementation to be successful and last over time (Paper I, Ljungblom, 2012). Several studies have even claimed that leadership is the strongest factor (Albliwi et al., 2014; Dahlgard et al., 2011; Grigg et al., 2020; Ingelsson et al., 2020).

Albliwi et al. (2014) identified lack of management attitude, commitment and involvement as the most critical failure factors in implementation, while Mann (2009) stated 80 per cent of the effort in Lean transformation is expended on changing leaders' practices and behaviours and mindset. The social system in Lean, together with the way Toyota leads and manages its employees, is the heart of Toyota's success and leads to successful behavioural patterns and an effective Lean culture (Schwagerman & Ulmer, 2013; Yadav et al., 2017). The social system in Lean can be seen as the key principle RFP.

According to Mann (2009), a Lean-leader must have a passion for Lean, together with disciplined adherence to process, project management orientation, ownership and effective relations with support groups. Such a person also needs beliefs, behaviours, and competencies that demonstrate RFP, motivate people, improve business conditions, ensure effective utilization of resources, and eliminates confusion and rework, as can be read in Paper I (Ljungblom, 2012).

Paper I (Ljungblom, 2012) shows that Lean leadership can be seen as a mixture of management and leadership. In other leadership models, those are often separated: management is seen as a function, planning, budgeting, evaluating

and facilitating (the organizational perspective), while leadership is viewed as a relationship, selecting talent, motivating, coaching and building trust – the human perspectives and more related to behaviour and psychology.

However, in the same the paper (Paper I), I showed that many authors deem the need for a different kind of leadership in organizations using Lean because of the specific needs of a Lean organization (e.g., Emiliani, 1998; Halling & Renström, 2014; Liker & Convis, 2012). The leaders need a mindset shift to build organizational Lean cultures based on shared value for people and CI (Grigg et al., 2020).

With these research findings in mind, it seems reasonable to use some kind of leadership model that can be helpful in a Lean implementation. Paper I (Ljungblom, 2012) and this thesis (Sub-chapter 4.1) show two different types of leadership models: Lean leadership behaviours (LLB) and developmental leadership (DL). Paper I demonstrates that LLB and DL were similar in that they both had a behavioural management purpose, focused on role models and advocated a frequency of developmental/value-adding behaviours. The main difference between the two models was that the LLB had two different purposes. The main purpose was to eliminate waste (CI) in the product value stream supported by the second purpose; to create value-creating behaviours.

At Toyota, the Japanese management style is used (Amaro et al., 2020), and Ohno (1988) described TPS management as management through *ninjutsu* (art of invisibility). *Ninjutsu* reflects the Japanese character and culture, which means that Toyota's managers actively try to improve themselves and their skills (Liker & Convis, 2012), which is partly based on Confucianism. This behaviour is similar to DL, which focuses on improving both the employees (including the leader) and the organization itself.

According to Ohno (1988), leadership through *ninjutsu* also describes the Toyota manager in the image of the leader's personality. According to Toyota, a leader is a humble person who can see opportunities for improvement in him/herself and others, as in Confucianism, for example. A Toyota leader leads from behind rather than from the front. In the Western world (see Chapter 2 in this thesis), the leader is rather personified as a charismatic, heroic, solo-visionary orator and super boss who stands against the tide and gets people to go with him/her.

Culture is also about how a leader leads and this can look different depending on the context in which the leader finds him/herself. If Western leadership looks like the type that Ohno (1988) described, it is very different from Japanese leadership. However, I do not believe that Swedish leaders, for example, need to follow the Japanese leadership model entirely, as I think the majority

of Swedish employees expect a different type of leadership. However, Swedish leaders might be able to learn something from Toyota and Japan, such as humility.

Leadership at Toyota is seen as crucial and Toyota has made decades-long investments in employee development (Liker & Convis, 2012). Leaders at Toyota must develop themselves to a certain level before they can take responsibility for developing others and leading the organization to achieve challenging goals. I have not investigated how Swedish organizations do this, but my experience working in or with different organizations tells me that this is not the case. Leaders usually receive no leadership training at all in the organization or, if they are lucky, they may be sent on a three-day training course. The idea of a more long-term leadership training is appealing to me.

In DL, the purpose focuses on making the leader aware about their own behaviours and, if necessary, develop or change them so their co-workers and organization gain developmental advantages (Paper I, Ljungblom, 2012). In LLB, the focus is on making leaders aware of what wrong behaviours can cost or cause the organization. DL is more clearly focused on the relation between the leader and co-worker. Even if LLB does not have this obvious or visible relation, it is underlying in RFP, one of the two key principles that characterizes both models.

In terms of purpose, both models seek to find leadership that supports development, whether it is leadership and employee development or organizational development. Words that create value and promote such development include trust and faith. The similarities between the two models, but especially the differences, could form a common model for a Lean leader – Developmental Lean leadership (DLL).

### **5.2.3.1 Creating a Developmental Lean Leadership model**

In Paper I (Ljungblom, 2012) it was proposed to merge the two studied models DL and LLB into one model. This model would take the good parts from both models and merge them into one. I will do that in this sub-chapter but also develop the model with additional Lean concepts such as product and people value stream, culture and *real* Lean.

The first step in merging the two models is to study the basic, overarching foundations of the two models. DL is characterized by (1) the leader acting as a role model and (2) asking questions about morals and ethics while observing tangible core values. DL is seen as a mental approach (a state of mind) and is consequently related to behaviours (Larsson et al., 2017).

The LLB concept has been developed to support the RFP principle and facilitate the development towards a Lean culture (Emiliani, 2008); in other words, show mutual trust, respect the role of others, solve problems, make work more satisfying and take organizational performance to an even higher level (Womack, 2008; Toyota Global Site, 2020a). When the two characteristics of DL – DL 1 and DL 2 – are compared with LLB, it is clear that the basis of the two models is similar, and that there should be no difficulties in merging them.

DL 1: In LLB, the role model behaviours are called behaviours that create value instead of developmental behaviours as in DL. However, the meaning is the same – behaviours that make people grow, work more efficiently, and make them feel satisfied.

DL 2: LLB are the behaviours that add or create value, such as trust, generosity and patience, and the more of these behaviours, the better the results. Thus, there is a relationship between ethical leadership behaviours and the frequency of behaviours over time, which is also found in DL.

With this result, the overall basis of the DLL will be:

*To act as a role model and support the development towards a real Lean culture.*

In terms of purpose, DLL strives to find a leadership that supports employee and organizational development and support both product and people value stream. DLL will be a mental approach (a state of mind) and is consequently related to behaviours.<sup>8</sup>

The second step in merging the two models is to study the coordinate system that DL uses in its model. DL uses two axes (see Figure 19): *organizational results*, and *individual development*. Different leadership styles are placed between the axes. DLL uses DL's two-axis coordinate system, but develops with a different starting point, which also affects the content between the axes.

Research in the field of Lean implementation has found that cultural development and change are crucial (Amaro et al., 2020; Kusy et al., 2015; Liker 2004; Taherimashhadi & Ribas, 2018). In order to change the culture, the people within the culture must also change. According to Mann (2009), 80 per cent of the effort in Lean transformation is expended on changing leaders' practices, behaviours, and mindset. Therefore, the vertical axis, named *individual development*, gets another component – *cultural development*.

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<sup>8</sup> Since DDL is a merger of the DL and LLB models, I retain part of DL's purpose; DLL will be a mental approach (a state of mind) and is consequently related to behaviour.

The horizontal axis in DL handles the *organizational results*. A missing element in DL while comparing DL with LLB in Paper I (Ljungblom, 2012) was the improvement of processes and finding waste (both behavioural and process waste), which is important for improving an organization. Studying the Toyota Way and Toyota requires both key principles (CI and RFP) to reach success – *real Lean*. Therefore, *real Lean* complements the axis named *organizational results*.

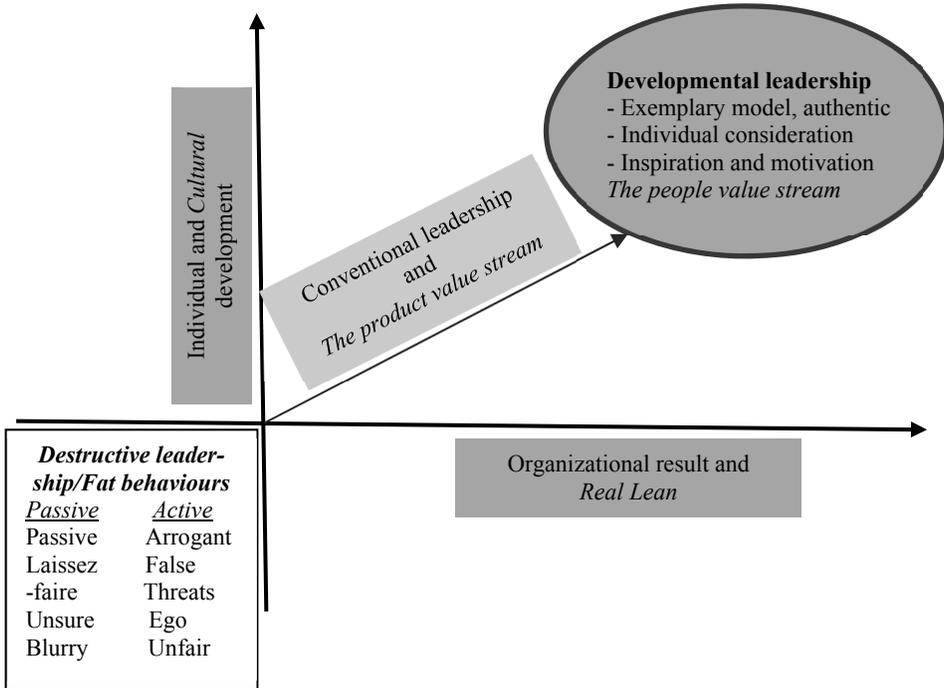


Figure 19: The Developmental Lean Leadership (DLL) model, produced by the author. The basis of the model is DL, and the complementary concepts are italicized in the model.

The third step merging the two models studies the destructive leadership in the DL model. Destructive leadership has a negative impact on areas such as job satisfaction, motivation and confidence, and can create problems such as stress and emotional fatigue (Fors Brandebo et al., 2018; Larsson et al., 2017). The nearest manager’s behaviours affects the relationship with the employee, and employees of destructive leaders also tend to have a negative attitude towards the organization as a whole.

Destructive leadership can be compared to LLB in terms of its fat behaviours: behaviours that add no value to the organization and are just wasteful. Examples of fat behaviours are selfishness, passivity, blaming, revenge, humiliation and elitism. Fat behaviours can also be recognised as a lot of talk but no action,

lack of creativity, and under-utilisation of employees' talents/skills (Paper I, Ljungblom, 2012).

There are a lot of similarities between fat behaviours and destructive behaviours, and if we do not eliminate those kind of behaviours, according to Emiliani (2008), there is a risk that the organization will “block the flow of information, undermines teamwork, causes delay and re-work, focus people’s attention on problem avoidance and obfuscation, lowers job satisfaction, and makes it much more difficult to satisfy customers” (p. 40). Both DL and LLB state that it can be ruinous for the leader to use destructive (fat) behaviours. So, in the DLL model, *fat behaviours* complementing the destructive leadership (see Figure 19).

The fourth step in creating a DLL model is to study the space between the axes – called the *developmental* part in the DL model – and then merge it with LLB. As shown in Paper I (Ljungblom, 2012), DL is a Swedish leadership model developed from Bass’ transformational leadership (Larsson et al., 2017). As a comparison to transformative leadership, he used transactional leadership (also called managerial leadership), which is a controlling and often masterful leadership that does not develop the individual, culture or organization but can be effective in crisis and emergency situations. In DL, transactional leadership is called the *conventional leadership* with the same content.

*Conventional leadership* is still useful in some circumstances, but needs to be developed in a Lean context. One of the conclusions of Paper I (Ljungblom, 2012) was that LLB had a purpose that clearly overrides the behavioural one: CI with focus on eliminating waste. Emiliani (2008) stated that conventional management practices does not recognize the existence of waste. In a Lean context, the leader must handle the waste, so *conventional leadership* is developed with the *product value stream* (see Figure 19) as an initial way of noticing the waste in a process.

Furthermore, the developmental part in DL, as previously mentioned, is characterized by the leader acting as a role model and raising questions of morals and ethics whilst observing perceptible core values, and shows personal consideration by providing support as can be read in Paper I (Ljungblom, 2012). This type of leader also provides inspiration and motivation to promote participation and creativity. These characteristic behaviours form DL support the reaching of higher performance and development for both individual and organization. The characteristic behaviours to reach DL are: *exemplary model with authentic, individual consideration, and inspiration and motivation*.

In a Lean context, DL characteristic behaviours and achieving goals can be recognizable in the *people value stream* (see Figure 2 in Paper IV) and the

RFP framework. LLB reduces waste from behavioural processes, which is also part of the people value stream. Therefore, to be aware of the behavioural waste and processes, working with and develop the *people value stream* is the new and complementary characteristic behaviour for a DLL leader.

### 5.2.3.2 How can DLL support RFP

Once a proposal for a new leadership model has been developed, it must be verified that the model supports RFP, which is considered crucial to achieve *real Lean* (Yadav et al., 2017). The question is whether the DLL supports RFP.

First of all, DLL is a mental approach (a state of mind) and is related to behaviours. The purpose of DLL is to find leadership that supports employee and organizational development, but also supports both product and people value stream. The purpose alone is a development and, in any case, an expressed attempt to actively support RFP as people value stream is highlighted in a way that has not been done before. The overarching foundation of DLL – *to act as a role model and support the development towards a real Lean culture* – also supports RFP because *real Lean* cannot exist without RFP. It may be to kick in open doors with these examples, but it still needs to be done. Let us continue with the model itself.

In Paper I (Ljungblom, 2012), DL describes *how to act like a role model* (in the paper it said exemplary acting) and the meaning is still the same in DLL. To act like a role model is to:

- Act like you talk and to have courage to lead the group, even in difficult situations
- Shows humanistic values, demanding loyal, moral and ethical behaviours by co-workers
- Be responsible to the organization and to co-workers' well-being
- Assume full responsibility when mistakes are made and share the responsibility for successful measures

These behaviours support a Lean culture and form the basis for achieving RFP. For example, trust and respect are humanistic values, and if a leader demands loyal, moral and ethical behaviours from his/her employees, he/she must practice them too in order to be a role model. For this to happen, the leader must address issues of morality and ethics while observing noticeable core values and showing mutual trust and respect for others and the role of others, solving problems, making work more satisfying and taking the organization's performance to an even higher level.

If a leader assumes full responsibility when mistakes are made, and shares the responsibility for successful measures, he or she will gain trust and respect but also create the conditions for equal opportunity and for excellence and employee engagement, which are a part of the Lean culture. Developing and challenging people (see people value stream: Figure 2 in Paper IV) can also strengthen this and give the people *empowerment*. A developmental Lean leader can create the conditions to give employees emotional and practical support. Such leaders can also promote participation with proactive commitment and form attractive future status that gives responsibility. Leaders can also encourage employees to come up with new ideas. The more responsibility, trust and commitment people get, the more autonomy they feel – it is a positive spiral.

RFP highlights a *team approach*, with consensus and effective communication. A team approach is handled by the people value stream by *implementing teamwork as the foundation of the organization*. Communication and consensus is taken care of by the model itself. Since LLB is merged into DLL, behavioural processes (like communication processes to reach consensus for example) are an important process to handle and improve.

An effective leader and co-worker considering communication must be aware of the communication behaviours that add value and try to use them as much as possible. At the same time, it is necessary to erase the fat behaviours in the process, to be blurry, act for their own gain, disrespect, etc. Effective communication is about removing waste from communication processes (fat behaviours) and from people's daily tasks.

### **5.2.3.3 Summary of the Leadership Part**

Lean leadership is said to be special. A Lean leader must have a passion for Lean, process knowledge, project management orientation and a good understanding of teams. He or she must also demonstrate behaviours and competencies that support RFP.

Leadership in Japan is part of culture and tradition. The Japanese management style is described as leading through *ninjutsu* and, at Toyota, leaders are developed through decades-long programmes and must reach a certain level before they are given responsibility for developing others and leading the organization.

The similarities and differences of the DL and LLB leadership models could form a common model for a Lean leader – Developmental Lean leadership (DLL).

DLL merges the good parts of DL and LLB. The new model has also been developed with Lean concepts, such as product and people value streams, culture and *real Lean*, and is based on acting as a role model and supporting the development towards a *real Lean* culture.

In terms of purpose, DLL strives to find leadership that supports employee and/or organizational development and supports both the product and people value streams. DLL will be a mental approach (a state of mind) and is consequently related to behaviours.

In DLL, role modelling and behaviours support a Lean culture and form the basis for achieving RFP. A DLL leader should be aware of his/her value-adding communication behaviours and try to use them as much as possible while removing the fat behaviours (being unclear, acting for personal gain, lack of respect).

Based on RQ2 (*what understandings of ethics, leadership and culture can enable Lean implementations?*), the conclusions regarding leadership are as follows. The organization needs to understand:

- The importance of a long-term leadership development with training and follow-up.
- Leadership can be developed through *ninjutsu* and *hansei*.
- Special Lean leadership is needed to create a Lean organization.
- DLL whose purpose is to support both employee and organizational development in working with the product and people value stream.
- DLL meets the needs of a Lean leader: to act as a role model and support the development towards a *real Lean* culture.

### 5.3 How can these Understandings form a Normative Framework for Lean Leaders?

If a leader wants to introduce Lean in his/her organization and the leader has understood that RFP with all its elements – both invisible and visible – are important in the process, how can the leader get support and help in the implementation process?

One way is to highlight the invisible parts during the implementation process and discuss similarities and differences between the organization's culture and the desired culture. After this has been done and documented, the changes

required and any barriers to change in the desired direction are also documented. That is, the leader must create the conditions for achieving the desired development and new results through training.

Just as there is a the Toyota Way house that Toyota used to explain what should be done, a Lean leader could use a kind of frame to explain how the implementation of RFP and *real* Lean can happen. In the frame, the invisible elements uncovered in the thesis could be implemented to make these elements, which are often so important, visible and create better conditions.

The purpose of this thesis was twofold. The first part was to develop alternative understandings of RFP and relationships to ethics, leadership, and culture in Lean implementations. The second part was to suggest a normative framework helping leaders to achieve *real* Lean.

The first part of the purpose has been discussed, so we now turn to the second part.

### 5.3.1 A Normative Framework for Lean Leaders – the RFP House

To achieve success in Lean implementation, the key principle of RFP is crucial (Paper IV, Ljungblom & Lennerfors, 2021) and organizations must strive for *real* Lean so that Lean can become more than just an add-on tool. Based on previous reasoning, the ultimate goal, in an organization that wants to implement *real* Lean, should be to strive to achieve the visible and invisible elements of the RFP. To help leaders create the conditions to do this, some kind of framework would be helpful. In this discussion I will use the Toyota Way house (see Figure 6) to analyse how a normative framework can look. The normative framework for Lean leaders is henceforth referred to as the RFP house.

In my proposed RFP house, the key principle of RFP is the roof of the house (the goal).



Figure 20: The roof of the RFP house.

If there is a roof, it needs to be supported in some way. In this case, as in the Toyota Way house, the support is two pillars. In order for the pillars to stand firmly, a foundation is also needed. I begin by describing the foundation.

### **The foundation of the RFP house. Minimalistic ethics and organizational culture.**

In Papers I (Ljungblom, 2012), III (Ljungblom & Lennerfors, 2018) and V (Ljungblom et al., 2022), minimalistic and maximalistic ethics were discussed. Minimalistic ethics is the moral foundation of an organization. It can be codes of conduct, principles and values discussed and agreed upon in the organization. In an organization, minimalistic ethics are used to create a moral standard/foundation to help employees set a moral compass and avoid problems and/or scandals, for example.

The minimalistic ethics, just like in an organization, are also the moral foundation in the RFP house and thus one of the bricks of the foundation. The other brick in the foundation is the organizational culture. As discussed in Chapter 5, it is essential to know what differentiates an organizational culture from Lean culture and *real* Lean. The organization needs to find out what is important in this particular organizational culture to retain in the Lean implementation and what needs to be developed if it wants to create the conditions for sustainable and well-founded organizational improvement.



*Figure 21:* The foundation in the RFP house.

Now that the foundation of the RFP house (the foundation stones of the organization) has been set and there is a goal (the roof) to aim for, two pillars are also needed to support the roof structure. Within this framework, the two pillars are DLL and maximalistic ethics.

#### **Pillar one in the RFP house – Developmental Lean Leadership (DLL)**

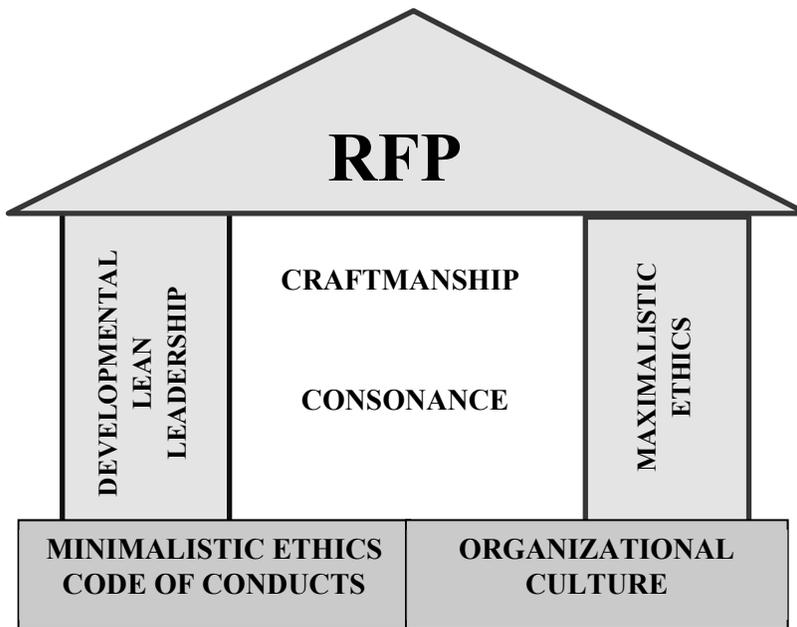
When implementing Lean, it has been shown that the leadership and the way the implementation itself takes place is a critical factor for the implementation to be successful and sustained over time (Ljungblom & Lennerfors, 2021). Lean leadership can be seen as a blend of management and leadership, as one must have a passion for Lean, along with disciplined adherence to the process, project management orientation, ownership and effective relationships with support groups, but also beliefs, behaviours and competencies that show respect for people, motivate people, improve business conditions, ensure efficient use of resources and eliminate confusion and rework (Emiliani, 2008). The combination of all these necessary components, behaviours and competencies is visible in the DLL, as can be seen in Sub-chapter 5.2. For this reason, DLL is one of the pillars of the RFP house.

## **Pillar two in the RFP house – Maximalistic Ethics**

At the heart of the framework, the minimalistic ethics was a moral foundation, visualized in a brick. Minimalistic ethics are a good foundation, but in order to develop the organization, maximalistic ethics are also needed as a complement.

The maximalistic ethics is based on the willingness of individuals to voluntarily do well and develop themselves to reach higher levels in their actions and goals. Maximalistic ethics is a set of ideals/values that point as guideposts towards the right solution. Maximalistic ethics increases the motivation of employees and can thus also increase the productivity of an organization. The results of Paper III (Ljungblom & Lennerfors, 2018) showed that virtue ethics are comparable to maximalistic ethics.

Virtue ethics such as respect and trust are used in definitions of Lean culture. In the RFP, the invisible element of culture is also said to be crucial for achieving *real* Lean. Therefore, maximalistic ethics is the second pillar in the RFP house (see Figure 22).



*Figure 22:* The RFP house – the normative framework for Lean leaders, developed of the author.

So far in the construction of the RFP house, there is a foundation for the house to stand on with organizational culture, rules, values and principles. The foundation can be seen as the basis for the ethical framework that creates the conditions for doing the right thing in the organization. On the other hand, there are also the two pillars in the RFP house. The first pillar consists of DLL and the second consists of maximalistic ethics. However, these pillars must match in terms of behaviours and values, which is why the concept of consonance (see Figure 9) falls between the pillars like a glue. Leadership and organizational values (and behaviours) must be taken into account to achieve the maximalistic ethics.

There is also an external factor to consider. All organizations have a purpose, something that is delivered: an important product/service that people produce in the organization. For example, Toyota builds cars. To build cars, it is necessary to have skilled and dedicated people who have an understanding of craftsmanship. Therefore, craftsmanship and its know-how must also be included in the framework.

With the RFP house (the normative framework for Lean leaders), I hope to somehow assist in the understanding of RFP and development can help leaders who want to introduce Lean, or even *real* Lean, in their organizations.

## 6 Conclusions and Further Research

*This chapter summarizes the thesis. The chapter ends with areas for further research.*

### 6.1 Conclusions

In this part of the thesis I will return to the purpose and the three research questions.

The purpose of the thesis was twofold: to develop alternative understandings of RFP and relationships to ethics, leadership, and culture in Lean implementations; and to suggest a normative framework that would help leaders to achieve *real* Lean.

These two parts of the purpose were deployed in three research questions, which were discussed in Chapter 5. Chapter 6 now presents the conclusions and answers to the research questions. The sub-chapter is divided after the research questions.

#### **What understandings of RFP can enable Lean implementations?**

RFP is said to be crucial for a successful Lean implementation (to achieve *real* Lean). Many people agree with this, and the lack of RFP as a big part of Lean's failures has been known for a long time. Despite this knowledge, the implementations still do not work and researchers still describe the lack of Lean as a crucial problem.

This thesis has shown that RFP is one of the more important Lean principles. Furthermore, it is clear that the studied literature has dealt with this principle to such a small extent – despite its importance – that it can give the wrong signals to practitioners.

Another answer to the first research question may be difficulties in understanding the concept of RFP itself. The meaning and the theoretical concept of RFP may be difficult to understand due to the vagueness of the concept, translation difficulties and scattered RFP definitions. However, a leader who

wants to introduce Lean should mainly consider the three cultural layers in which RFP exists: artefacts, beliefs and values, and taken-for-granted underlying assumptions. This means that there are both visible and invisible elements of the RFP and a further understanding of the concept that needs to be addressed.

In order to understand and deal with the concept of RFP and later to work with it, the organization must first sort, define, study and create knowledge about the visible parts, find out what RFP and the different words in the concept (respect and people) mean to them, and then their own definition to rely on (work with artefacts). Once this has started, procedures and standards are needed to work on the implementation of RFP (work with espoused beliefs and values).

Once the visible elements of the RFP have been defined and understood by the Lean-implementing organization, it is then a matter of teaching, creating, empowering and developing the employees so that they can later use the various methods and tools available. RFP framework and the people value stream are two tools that can be used.

However, I am convinced that the *how* is missing in those methods. The organization needs to study *the how* and thus create an understanding of why things turn out the way they do when we do what we do. It is about getting a grip on the third, invisible level – taken-for-granted underlying assumptions – and trying to understand them. In order to establish and create the conditions for *real* Lean, all elements of RFP must be made visible and discussed. The invisible elements of RFP in this thesis were ethics, leadership and culture.

Organizations need more know-how (instead of know-what) to create *real* Lean. RFP could be explained as a how-facilitator that can enable Lean implementation and if CI is carried out in *real* Lean way it will both eliminates waste while making people feel seen, enlightened and knowledgeable.

### **What understandings of ethics, leadership, and culture can enable Lean implementations?**

To make the invisible elements visible, it is first necessary to understand the differences in *culture* (national/organizational), and study Lean as the Japanese philosophy it actually is. The organizational knowledge about the Lean culture must be taken into consideration before entering the change of a Lean journey.

An organizational analysis with a culture diagnosis is a first step before Lean implementation is necessary, which should show what the organization can retain, develop or reject, in terms of cultural elements such as values, routines

and principles. The values that the organization decides to preserve, develop or renew then become the basis for this organization Lean Culture and also become the starting point when consonance is to be created. In the analysis, the organization can also make sure to avoid the dark side of Lean. This means identifying and eliminating behaviours and negative aspects that increase the efficiency of the organization, but at the same time exploit the employees and impair their health.

However, the organization must keep in mind that the Lean toolkit have been created in a Japanese environment influenced by Japanese culture, religion and traditions, and Japanese customs, practices and traditions may not come naturally to people in other countries who have not been trained in *kata* or *hansei*, have they grown up with Confucianism, Buddhism or Shintoism, and do not speak Japanese.

Studies have shown that Lean is less about tools, methods and principles than about procedures and routines; that is, patterns of thought and action. By repeating these patterns on a daily basis, the conditions can be created so that Lean organizations from other cultures can also achieve the desired results. These organizations could also discuss long-term thinking and consider implementing *hansei* to improve further.

Japan's cultural advantage in terms of quality is something that also needs to be highlighted and understood. Many organizations in the West have barely reached Lean Maturity Phase 1, whereas Toyota is well into Phase 3 and still feels it can improve. In other words, most organizations need a lot of training and practice to even begin a Lean implementation.

*Ethics* is also part of the invisible elements of RFP. Minimalistic ethics is already in place, but maximalistic ethics could be more discussed and used in organizations that want to create RFP and reach higher production levels. Maximalistic ethics can be seen as virtue ethics, which is partly similar to Japanese religions and philosophies, at least in terms of character. Virtue ethics can be seen as more applicable in a Lean context.

Both *hitozukuri* and craftsmanship can be seen as virtue ethics and invisible elements of RFP. These two concepts, of building people with physical and bodily involvement in things, lead to good quality. Craftsmanship implies practical knowledge – knowing how rather than knowing that – which means that organizations need to identify and develop know-how to achieve *real* Lean. For example, the people value stream and RFP framework can help work with *hitozukuri*.

*Leadership* is required to make Lean implementation a reality. Toyota uses a Japanese style of leadership, including long-term leader development and management through *ninjutsu*, which may be an improvement on the more extroverted style in the West. When Lean is to be implemented, a specific Lean leadership is needed. To help leaders achieve a better understanding of the invisible elements during Lean implementation, I have developed Developmental Lean leadership, DLL.

The purpose of DLL is to find leadership that supports both employee and organizational development and the product and people value stream. What is missing in DL – namely, process improvement and detection of behavioural and process waste – has been developed in DLL. DLL meets the needs of a Lean leader, which is to act as a role model and support the development towards a *real* Lean culture.

### **How can these understandings form a normative framework for Lean leaders?**

In addition to specific leadership, it seems that leaders also need help focusing on the right things to achieve *real* Lean; in other words, focusing on RFP. To help the Lean leader with this, I have tried to create a normative framework that I call the RFP house. The RFP house is a start, and it can be developed further. Nevertheless, I hope, with the beginning that it is, to help leaders who want to implement Lean, or indeed *real* Lean, in their organizations.

### **Summary**

To get it all together at the end, I conclude with the suggestion to bring the RFP house together with a list: *a six-step to-do list* that an organization can use to achieve *real* Lean in its implementation. Before starting to use the list, the organization must take into account the three cultural levels of RFP and the visible and invisible parts of RFP.

The work with *the six-step to-do list* should be supported by the organization's minimalistic ethics (one stone in the foundation of the RFP house) in the form of the organizational Code of Conduct and by the DLL (the first pillar in the RFP house) that guides the work. Each of the six steps is also covered by communicating, discussing, problematizing, practicing and practicing again and again. These steps are listed below.

**1. Conduct an organization analysis.** The first step is to conduct an organizational analysis (with a culture diagnosis) that compares the organization's culture with the Lean culture and shows what your organization can retain,

develop or reject in terms of cultural elements such as values, practices and principles.

**2. Set the goal (the roof) – what does RFP mean in the organization?** The second step is for the organization to start sorting, defining, studying and creating knowledge about the visible parts, finding out what RFP and the different words in the concept (respect and people) mean to them. The organization needs its own definition to rely on (artefacts).

**3. Create organizational consonance.** Once the definition is well established, it is time for the third step, and the organization must work to highlight values that are anchored in the organization so that consonance can occur. Thereafter, procedures and standards are needed to work on the implementation of the RFP (beliefs and values) and maintain consonance.

**4. Why we do what we do – organizational invisible elements as Craftsmanship.** More work needs to be done to further develop and understand why we do what we do. It is about getting a grip on the third and invisible level: the underlying assumptions that the organization has taken for granted and trying to understand them. Craftsmanship in terms of knowing-how, often the tacit knowledge, is also dealt with in the fourth step.

**5. Maximalistic ethics (the second pillar).** Once the ethical foundation is in place and the organization begins to understand itself in terms of both visible and invisible elements, higher ethical goals must be set. The fifth step is to discuss ethical considerations to create motivation and achieve better results: where do we want to go and how good do we want to be?

**6. Start implementing Lean.** Only once the organization's foundation is in place and has maximalistic ethical goals to strive for can the Lean implementation (Step 6) begin. Now the organization can implement the Lean values that were considered important in Step 1 along with Lean methods and tools such as standardisation (*kata*), reflection (*hansei*) and long-term thinking.

Finally, I would like to conclude with a short and rather simple thought. During this research journey I have come to understand that CI is the visible part of Lean that tells us what to do, whether it is removing waste in a manufacturing process or an interpersonal process. RFP is the oil that enables the processes to carry out in such a way that people simultaneously feel seen, uplifted, important and knowledgeable. RFP is the *how* of CI.

## 6.2 Further Research

The journey to this finished thesis has been an interesting and instructive one. During the course of the work, fun, interesting and exciting questions have arisen. Some of these questions have been answered through further reading and delving into different areas. However, some questions still remain. One regards the current team and whether the maturity of the team (in which phase of group dynamics) affects a Lean implementation and, if so, in what way. I believe this would be an interesting topic for further research.

I would also like to see the findings of this thesis followed up on. Although RFP is studied with its invisible elements, I have only touched on a very small part of ethics, leadership and culture. There is so much to delve into and hopefully more exciting things to develop Lean with. I think there is significant potential to develop the human side of Lean, to achieve more humane organizations and get better results as a bonus.

Last but not least, I would like to see further development and deepening of the RFP house, and also see whether the RFP house can be helpful for a leader who wants to introduce *real* Lean. An ideal scenario would be parallel studies in different organizations to test the model.

## 7 References

- Albliwi, S., Antony, J., Abdul Halim Lim, S., & van der Wiele, T. (2014). Critical failure factors of Lean Six Sigma: a systematic literature review. *International Journal of Quality & Reliability Management*, 31(9), 1012–1030. doi:10.1108/IJQRM-09-2013-0147.
- Amaro, P., Alves, A. C., & Sousa, R. M. (2020). Lean Thinking: From the Shop Floor to an Organizational Culture. In: Lalic, B., Majstorovic, V., Marjanovic, U., von Cieminski, G., Romero, D. (eds.) *APMS 2020. IAICT*, 592, 406–414. Springer. doi:10.1007/978-3-030-57997-5\_47
- Bass B. M. (1990). *Transformational leadership: Industrial, military, and educational impact*. Lawrence Erlbaum Associates.
- Belhadi, A., Touriki, F. E., & Elfezazi, S. (2019). Evaluation of critical success factors (CSFs) in lean implementation in SMEs using AHP. A case study. *International Journal of Lean Six Sigma*, 10(3), 803–829. doi:10.1108/IJLSS-12-2016-0078
- Bevilacqua, M., Ciarapica, F. E., & Paciarotti, C. (2015) Implementing lean information management: The case study of an automotive company. *Production Planning & Control*, 10 (26), 753–768. doi:10.1080/09537287.2014.975167
- Bodek, N. (2008). Leadership is critical to lean. *Manufacturing Engineering*, 140(3), 145–155.
- Bortolotti, T., Boscarri, S., & Danese, P. (2015). Successful lean implementation: Organizational culture and soft lean practices. *International Journal of Production Economics*, 160, 182–201. doi:10.1016/j.ijpe.2014.10-013
- Bryman, A. (2008). *Social Research Methods*. Liber AB.
- Bäckström, I., & Ingelsson, P. (2016). Measuring appreciative inquiry, lean and perceived Co-worker health. *Quality Innovation Prosperity*, 2(20), 105–118, doi:10.12776/QIP.V2012.744
- Chaple, A. P., Narkhede, B. E., Akarte, M. M., & Raut, R. (2021). Modelling the lean barriers for successful lean implementation: TISM approach. *International Journal of Lean Six Sigma*, 12(1),98–119. doi:10.1108/IJLSS-10-2016-0063
- Chiarini, A., Baccarani, C., & Macherpa, V. (2018). Lean production, Toyota Production System and Kaizen philosophy. A conceptual analysis from the perspective of Zen Buddhism. *The TQM Journal*, 30(4), 425–438. doi:10.1108/TQM-12-2017-0178
- Chiarini, A., & Brunetti, F. (2019). What really matters for a successful implementation of Lean production? A multiple linear regression model based on European manufacturing companies. *Production Planning & Control*, 30(13), 1091–1101. doi:10.1080/09537287.2019.1589010
- Cochran, D., Schmidt, G., Oxtoby, J., Hensley, M., & Barnes, J. (2017). Using collective system design to define and communicate organization goals and related solutions. *Journal of Enterprise Transformation*, 7(1–2), 23–39. doi:10.1080/19488289.2017.1339746

- Coeckelbergh, M. (2012). Technology as skill and activity: Revisiting the problem of alienation. *Research in Philosophy and Technology*, 3(16), 209–230.
- Coetzee, R., Jonker, C., van Dyk, L., & van der Merve, K. (2019). The South African perspective on the lean manufacturing Respect for People principles. *SA Journal of Industrial Psychology*, 45(0), 1–11. doi:10.4102/sajip.v45i0.1613
- Coetzee, R., van Dyk, L., & van der Merve, K. (2019). Towards addressing respect for people during lean implementation. *International Journal of Lean Six Sigma*, 10(3), 830–854. doi:10.1108/IJLSS-07-2017-0081
- Connelly, L. M. (2016). Trustworthiness in Qualitative Research. *Medsurg Nursing; Pitman*, 25(69), 435–436. Retrieved at <https://www.proquest.com/openview/44ffecf38cc6b67451f32f6f96a40c78/1?pq-origsite=gscholar&cbl=30764>, 2022-03-07
- Connor, D.O., & Cormican, K. (2021). Leading from the middle: How team leaders implement lean success factors. *International Journal of Lean Six Sigma*. 2040–4166. doi:10.1108/IJLSS-11-2020-0194
- Cooper, K. (2008). Profiting from Lean Management. Lean Management revolves around two key principles: continuous improvement and respect for people. Retrieved at [https://idealliance.org/files/2008\\_06\\_trend.pdf](https://idealliance.org/files/2008_06_trend.pdf), 2021-06-22
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed method approaches*. SAGE Publications, Inc.
- Dahlgaard-Park, S. M. (2011). The quality movement: Where are you going? *Total Quality Management*, 22(5), 493–516. doi:10.1080/14783363.2011.578481
- Dahlgaard, J., Pettersen, J., & Dahlgaard-Park, S. (2011). Quality and lean healthcare: A system for assessing and improving the health of healthcare organizations. *Total Quality Management*, 22(69), 673–689. doi:10.1080/14783363.2011.580651
- Denscombe, M. (2016). *Forskningshandboken. För småskaliga forskningsprojekt inom samhällsvetenskaperna* [The Good Research Guide – for small-scale social research projects]. Studentlitteratur.
- Dibia, I. K., & Onuh, S. (2010). Lean Revolution and the Human Resource Aspects. *Proceedings of the World Congress on Engineering 2010 Vol III*. Retrieved at [https://www.researchgate.net/profile/Spencer-Onuh/publication/45534781\\_Lean\\_Revolution\\_and\\_the\\_Human\\_Resource\\_Aspects/links/00b49530f8b263fbbc000000/Lean-Revolution-and-the-Human-Resource-Aspects.pdf](https://www.researchgate.net/profile/Spencer-Onuh/publication/45534781_Lean_Revolution_and_the_Human_Resource_Aspects/links/00b49530f8b263fbbc000000/Lean-Revolution-and-the-Human-Resource-Aspects.pdf), 2019-05-22
- Dombrowski, U., & Mielke, T. (2013). Lean Leadership fundamental principles and their application. *ScienceDirect*, 7, 569–574.
- Emiliani, M. L. (1998). Lean behaviors. *Management Decision*, 36(9), 615–631. doi:10.1108/00251749810239504
- Emiliani, M. L. (2008). *The Equally Important “Respect for People” Principle*. Retrieved at [https://www.researchgate.net/profile/MI\\_Emiliani/publication/265985726\\_The\\_Equally\\_Important\\_Respect\\_for\\_People\\_Principle/links/552594b10cf24b822b40560e.pdf](https://www.researchgate.net/profile/MI_Emiliani/publication/265985726_The_Equally_Important_Respect_for_People_Principle/links/552594b10cf24b822b40560e.pdf), 20-03-17
- Emiliani, M. L. (2010). *Moving Forward Faster. The Mental Evolution of Fake Lean to REAL Lean*. The Center for Lean Business Management, LCC.
- Emiliani, M. L. (2014). Shifting definitions of “Lean Thinking”. Retrieved at <https://bobemiliani.com/shifting-definitions-of-lean-thinking>, 20-03-17
- Erthal, A., & Marques, L. (2018). National culture and organizational culture in lean organizations: a systematic review. *Production Planning & Control*, 29(8), 668–687. doi:10.1080/09537287.2018.1455233
- Foley, K. J., & Zahner, T. (2009). *Creating and managing the sustainable organization: The stakeholder way*. SAI Global.

- Fors Brandebo, M., Nilsson, S., & Larsson G. (2018). *Destruktivt Ledarskap. Hur uppkommer det? Vilka effekter får det? Vad kan man göra åt det?* [Destructive Leadership. How does it arise? What are its effects? What can be done about it?], Studentlitteratur.
- Francisco J. A. (2010). The difference of being human: Morality. *PNAS*, *107*(2), 9015–9022. Retrieved at [https://www.pnas.org/content/pnas/107/Supplement 2/9015.full.pdf](https://www.pnas.org/content/pnas/107/Supplement%202/9015.full.pdf), 2021-11-11
- Fredriksson, M., & Isaksson, R. (2018). Making sense of quality philosophies. *Total Quality Management & Business Excellence*, *29*(11–12), 1452–1465. doi:10.1080/14783363.2016.1266245
- Grigg, P. N., Goodyer, E. J., & Frater, G. T. (2020). Sustaining lean in SMEs: Key findings from a 10-year study involving New Zealand manufacturers. *Total Quality Management & Business Excellence*, *31*(5–6), 609–622. doi:10.1080/14783363.2018.1436964
- Halling, B., & Renström, J. (2014). Lean leadership: A matter of dualism. *International Journal of Human Resources Development and Management*, *14*(4), 242–253. doi:10.1504/IJHRDM.2014.069355
- Hines, P. (2010). How to create and sustain a lean culture. *Development and Learning in Organizations*, *24*(6), 58–62. doi:10.1108/dlo.2010.08124fad.007
- Hines, P., Holweg, M., & Rich, N. (2004). Learning to involve. A review of contemporary lean Thinking. *International Journal of Operations and Production Management*, *24*(10), 994–1011. doi:10.1108/01443570410558049
- Hines, P., Taylor, D., & Walsh, A. (2020). The Lean journey: Have we got it wrong? *Total Quality Management & Business Excellence*, *31*(3–4), 389–406. doi:10.1080/14783363.2018.1429258
- Holweg, M. (2007). The genealogy of lean production. *Journal of Operations Management*, *25*, 420–437. doi:10.1016/j.jom.2006.04.001
- Hursthouse, R. (1999). *On Virtue Ethics*. Oxford University Press.
- Imsen, G. (1999). *Lärarens värld. Introduktion till allmän didaktik* [The world of the teacher. Introduction to general didactics]. Studentlitteratur.
- Ingelsson, P., Bäckström, I., & Snyder, K. (2020). Adapting a Lean leadership-training program within a health care organization through concretion. *International Journal of Quality and Service Sciences*, *12*(1), 15–28. doi:10.1108/IJQSS-09-2019-0107
- Jadhav, J. R., Mantha, S. S., & Rane, S. B. (2014). Exploring barriers in lean implementation. *International Journal of Lean Six Sigma*, *5*(2), 122–148. doi:10.1108/IJLSS-12-2012-0014
- Jacobsen, D. I. (2017). *Hur genomför man undersökningar? Introduktion till samhällsvetenskapliga metoder* [How to conduct surveys? Introduction to social science methods]. Studentlitteratur.
- Jørgensen, B., & Emmitt, S. (2008). Lost in transition: the transfer of lean manufacturing to construction. *Engineering, Construction and Architectural Management*, *15*(4), 383–398. doi:10.1108/09699980810886874
- Kahm, T., & Ingelsson, P. (2020). “Stuck in the middle” first-line healthcare managers’ responsibilities and needs of support when applying Lean. *International Journal of Quality and Service Sciences*, *12*(2), 173–186. doi:10.1108/IJQSS-06-2019-0088
- Kusy, M., Diamond, S., & Vrchota, S. (2015). Why Culture Change is Critical to Lean Initiatives. *Healthcare Executive*, *30*(6).
- Larsson, G., Lundin, J., & Zander, A. (2017). *Ledarskapsmodellen. Konsten att matcha individuella och organisatoriska förutsättningar* [The Leadership Model.

- The art of matching individual and organizational conditions]. Studentlitteratur.
- Lexus Takumi. (2020). Retrieved at [www.facebook.com/watch/?v=660104177760518](https://www.facebook.com/watch/?v=660104177760518), 2020-08-12
- Liker, J. K. (2004). *The Toyota Way. 14 Management Principles from the World's Greatest Manufacturer*. McGraw-Hill.
- Liker, J., & Convis, G. L. (2012). *The Toyota Way to Lean Leadership. Achieving and Sustaining Excellence through Leadership Development*. McGraw-Hill.
- Liker, J. K., & Hoseus, M. (2008). *Toyota Culture. The heart and soul of the Toyota Way*. McGraw-Hill.
- Liker, J. K., & Morgan, J. M. (2006). The Toyota Way in Services. The Case of Lean Product Development. *Academy of Management Perspectives*, 20(2), S5–20. doi:10.5465/amp.2006.20591002
- Loyd, N., Harris, G., Gholston, S., & Berkowitz, D. (2020). Development of a lean assessment tool and measuring the effect of culture from employee perception. *Journal of Manufacturing Technology Management*, 31(7), 1439–1456. doi:10.1108/JMTM-10-2019-0375
- Loh, K. L., & Yusof, S. M. (2020). Blue ocean leadership activities improve firm performance. *International Journal of Lean Six Sigma*, 11(2), 359375. doi:10.1108/IJLSS-09-2018-0102
- Långstedt, J., & Manninen, T. J. (2021). Basic Values and Change: A Mixed Methods Study. *Journal of Change Management*, 21(3), 333–357. doi:10.1080/14697017.2020.1837206
- MacIntyre, A. (2013). *After virtue: A study in moral theory*. Bloomsbury.
- Mann, D. (2009). The Missing Link: Lean Leadership. *Frontiers of Health Services Management*, 26(1), 15–26. Retrieved at <https://www.proquest.com/openview/a0c19f75bc4e7dc26fe9cc34e87548f0/1?pq-origsite=gscholar&cbl=36179>, 2021-06-22
- Marksberry, P. (2011). The Toyota Way – a quantitative approach. *International Journal of Lean Six Sigma*, 2(2), 132–150. doi:10.1108/20401461111135028
- Mehri, D. (2006). The Darker Side of Lean: An Insider's Perspective on the Realities of the Toyota Production System. *Academy of Management Perspectives*, 20(2), 21–42. doi:10.5465/amp.2006.20591003
- Meirovich, G., & Romar, E. J. (2004). Confucianism as an Ethical Foundation for Total Quality Management. *Business & Professional Ethics Journal*, 23(3), 25–44.
- Netland, H. T. (2016). Critical success factors for implementing lean production: The effect of contingencies. *International Journal of Production Research*, 54(8), 2433–2448. doi:10.1080/00207543.2015.1096976
- Noda, T. (2015). Integration of Lean Operation and Strategy in Retail. *Journal of Marketing Development and Competitiveness*, 9(1), 50–60.
- Norberg, M. (2019). *Engagerat Ledarskap för att skapa förutsättning för allas delaktighet. Utgångspunkter i kvalitetsarbetet* [Committed Leadership to create the conditions for everyone's participation. Starting points in quality work]. Acta Universitatis Upsaliensis.
- Ohno, T. (1988). *Toyota Production System. Beyond Large-Scale Production*. Taylor & Francis Group.
- Oppenheim, B., Murman, E., & Secor, D. (2009). Lean Enablers for Systems Engineering. *Wiley InterScience*. doi: 10.1002/sys.20161
- Oudhuis, M., & Olsson, A. (2015). Cultural clashes and reactions when implementing lean production in a Japanese owned Swedish company. *Economic and Industrial Democracy 2015*, 36(2) 259–282. doi:10.1177/0143831X13505118

- Pakdil, F., & Leonard, K. M. (2015). The effect on organizational culture on implementing and sustaining lean processes. *Journal of Manufacturing Technology Management*, 26(5), 725–743. doi:10.1108/JMTM-08-2013.0112
- Pakdil, F., & Leonard, K. M. (2017). Implementing and sustaining lean processes: the dilemma of societal culture effects. *International Journal of Production Research*, 55(3), 700–717. doi:10.1080/00207543.2016.1200761
- Philipson, S. (2004). *Etik och Företagskultur* [Ethics and Corporate Culture]. Studentlitteratur.
- Philipson, S. (2011). *Kan en värdegrund skapa framgång* [Can a set of values create success]? Studentlitteratur.
- Rachels, J., & Rachels, J. (2015). The elements of moral philosophy. McGraw Hill.
- Rarick, C. A. (1994). The Philosophical Impact of Shintoism, Buddhism, and Confucianism on Japanese Management Practices. *International Journal of Value-Based Management*, 7, 219–226.
- Rother, M. (2013). *Toyota Kata. Lärande Ledarskap, Varje dag* [Toyota Kata. Learning Leadership, Everyday]. Liber AB.
- Rosén, L. (2014). *Lean i en ICA Supermarket butik. En undersökning av förutsättningar för implementering av Lean* [Lean in an ICA Supermarket store. A study of the conditions for the implementation of Lean]. Högskolan i Gävle.
- Sartal, A., Martinez-Senra, A., & Cruz-Machado, V. (2018). Are all lean principles equally ecofriendly? A panel data study. *Journal of Cleaner Production*, 177, 362–370. doi:10.1016/j.jclepro.2017.12.190
- Schein, E. H. (2017). *Organizational culture and leadership* (5<sup>th</sup> ed.). Jossey Bass.
- Schwagerman III, W. C., & Ulmer, J. M. (2013). The A3 Lean Management and Leadership Thought Process. *Journal of Technology, Management & Applied Engineering*, 29(4), 1–10.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75. Retrieved at [https://www.pm.lth.se/fileadmin/\\_migrated/content\\_uploads/Shenton\\_Trustworthiness.pdf](https://www.pm.lth.se/fileadmin/_migrated/content_uploads/Shenton_Trustworthiness.pdf), 2022-03-07
- Sloan, B. C. (2017). *An interpretive Phenomenological Approach to Understanding Employee Meaning of Lean and Respect for People*. Retrieved at <https://core.ac.uk/download/pdf/195265234.pdf>, 2021-09-16
- Sugimori, Y., Kusunoki, K., Cho, F., & Uschikawa, S. (1977). Toyota production system and Kanban system. Materialization of just-in-time and respect-for-human system. *International Journal of Production Research*, 15(6), 553–564.
- Sörqvist, L., & Bergendahl, M. (2021). *Lean. Processutveckling medfokus på kundvärde och effektiva flöden* [Lean. Process development with a focus on customer value and efficient flows]. Studentlitteratur.
- Taherimashhadi, M., & Ribas, I. (2018). A Model to align the organizational culture to Lean. *Journal of Industrial Engineering and Management*, 11(2), 207–221. doi:10.3926/jiem.2511
- Tan, S. (2005). Imagining Confucius: Paradigmatic character and virtue ethics. *Journal of Chinese Philosophy*, 32(3), 409–426. Retrieved at [https://ink.library.smu.edu.sg/soas\\_research/2540](https://ink.library.smu.edu.sg/soas_research/2540)
- Thompson L. (2008). *Making the team – a guide for managers*. Pearson Education Inc.
- Tiptarajan, K., Lertrusdachakul, T., & Mahatanankoon, P. (2019). Redefining ‘monozukuri’ in the context of information technology education. Proceedings of the EDSIG Conference. Retrieved at <http://proc.is-cap.info/2019/pdf/4973.pdf>, 2022-03-28

- Toyota Code of Conduct. (2018). [www.Toyota.com](http://www.Toyota.com). Retrieved at [https://global.toyota/en/company/vision-and-philosophy/toyotaway\\_code-of-conduct](https://global.toyota/en/company/vision-and-philosophy/toyotaway_code-of-conduct), 2020-06-08
- Toyota Global Site. (2020a). [www.Toyota.com](http://www.Toyota.com). Retrieved at [https://global.toyota/en/company/vision-and-philosophy/toyotaway\\_code-of-conduct](https://global.toyota/en/company/vision-and-philosophy/toyotaway_code-of-conduct), 2020-06-08
- Toyota Global Site. (2020b). [www.Toyota.com](http://www.Toyota.com). Retrieved at <https://toyotatimes.jp/en/insidetoyota/091.html>, 2020-11-05
- Toyota Global Site. (2020c). [www.Toyota.com](http://www.Toyota.com). Retrieved at <https://global.toyota/en/company/vision-and-philosophy/global-vision>, 2020-11-05
- Traylor, G. (2011). Lean interacts with the oil, gas industry. *Management Report*. ISSN:1527-4036, 13–15.
- Tännsjö, T. (2013). *Understanding Ethics*. Edinburgh University Press.
- van Assen, M. F. (2018). Exploring the impact of higher management's leadership styles on Lean management. *Total Quality Management & Business Excellence*, 29(11–12), 1312–1341. doi:10.1080/14783363.2016.1254543
- Vanichchinchai, A. (2021). Assessing lean satisfaction and its enablers: A care provider perspective. *Operations Management Research*, 14, 95–106. doi:10.1007/s12063-021-00185-0
- Vetenskapsrådet. (2022). *Etik i forskningen* [Ethics in research]. Retrieved at <https://www.vr.se/uppdrag/etik/etik-i-forskningen.html>. 2022-03-18
- Wangwacharakul, P., Berglund, M., Harlin, U., & Gullander, P. (2014). Cultural Aspects when Implementing Lean Production and Lean Product Development – Experiences from a Swedish Perspective. *Quality Innovation Prosperity*, 18(1), 125–140. doi:10.12776/qip.v18i1.321
- Wilson, W.J., Jayamaha, N., & Frater, G. (2018). The effect of contextual factors on quality improvement success in a lean-driven New Zealand healthcare environment. *International Journal of Lean Six Sigma*, 9(2), 199–220. doi:10.1108/IJLSS-03-2017-0022
- Wittrock, C. (2015). Reembedding Lean: The Japanese Cultural and Religious Context of a World Changing Management Concept. *International Journal of Sociology*, 45(2), 95–111. doi:10.1080/00207659.2015.1061852
- Womack, J. P. (2008). Respect for people. *BP Trends*. Retrieved at [www.bptrends.com/publicationfiles/THREE%2002-08-ART-Respect%20for%20People-Womack-final.doc.pdf](http://www.bptrends.com/publicationfiles/THREE%2002-08-ART-Respect%20for%20People-Womack-final.doc.pdf), 2020-11-05
- Womack, J. P., & Jones, D. T. (2003). *Lean thinking: banish waste and create wealth in your corporation*. Free Press Business.
- Womack, J.P., Jones, D. T., & Roos, D. (2007). *The Machine That Changed The World*. Free Press.
- Yadav, O., Nepal, B., Rahaman, M., & Lal, V. (2017). Lean implementation and organizational transformation: A literature review. *Engineering Management Journal*, 29(1), 2–16. doi:10.1080/10429247.2016.1263914
- Yin, R. K. (1994). *Case Study Research: Design and Methods* (2<sup>nd</sup> ed.). Sage Publication Ltd.
- Yukl, G. (2010). *Leadership in organizations*. Pearson Prentice Hall.



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