

# **FIRST LEAP INTO THE LEAN FINANCIAL CLOSING PROCESS**

Understanding the team drivers for adopting lean accounting process



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## TIIVISTELMÄ

First Leap into the Lean Financial Closing Process -opinnäytetyö käsittelee taloushallinnon kirjanpidon ja raportoinnin tiimin valmiutta vaadittavaan muutosloikkaan. Tutkittava tiimi toimii osana monikansallisen teollisuusyhtiön taloushallinnon ja raportoinnin osastoa. Tekijä tutkii tiimin tämänhetkistä ymmärrystä leanin toiminnan periaatteista ja arvioi tiimin valmiutta ottaa käyttöön uudet toimintatavat. Tutkimuksen taustalla on ajatuksena valmistella suunnitelmaa leanien toimintamallien vahvistamisesta koko yksikössä.

Opinnäytetyön teoreettinen viitekehys esittelee pääpiirteissään leanin toimintaperiaatteet. Tämän lisäksi käydään syvemmin läpi tähän tapaukseen soveltuvat erityispiirteet liittyen leaneihin taloushallinnon toimintasuosiin ja muutoksen hallintaan. Tutkimus pyrkii sekä esittelemään leanin toimintatavan periaatteita esimerkitiimille että ryhmäkeskustelun kautta arvioimaan ryhmän valmiutta muutokseen.

Tutkimuksen peruskysymykset ovat:

Mikä on tämänhetkinen käsitys tässä taloushallinnon tiimissä leaneista toimintatavoista?

Mitä muutoksenhallinnan toimenpiteitä pitäisi tehdä jotta saavutetaan paras tulos toimintatapojen omaksumisessa?

Mitä nopeita muutoksia voidaan tunnistaa jo tutkimuksessa käyttöönotettavaksi?

Lopputuloksena tekijä suunnittelee myös laajemman toimintakartan koko talousosaston leanin toimintatavan käyttöönottamiseksi. Keskustelun lopputuloksena on selvää että sekä tiimi että osasto on valmis ottamaan ensimmäisiä leaneja askeleita.

**Avainsanat** lean toimintatapa, muutoksenhallinta, lean taloushallinnossa

**Sivut** 51

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ABSTRACT

This thesis 'First Leap into the Lean Financial Closing Process' looks into a financial reporting team in a global manufacturing company's support function role. The author is assessing the team's current understanding of the Lean methodology and evaluating the future readiness for adopting lean ways of working.

The theoretical framework is presenting the main Lean process principles as an introduction to the methodology. In addition, it is emphasizing special characteristics tailored for this case, such as lean financial closing process, change management related expert recommendations and further study of the value stream mapping and identifying waste in the work.

The research is concentrating into the sample team and aims to assess the team's readiness into adopting lean practices in its work and looking into the change management and steps.

What is current understanding in the financial team of the lean methodologies?

What is the level of change management actions required to gain optimal response to the adopting lean closing process?

What are the quick wins that can be identified already from the research discussions – easy to implement and/or gain consensus of streamlining the process to optimal efficiency?

As an outcome, the author is presenting her recommendations for the team as quick-wins to be implemented and planning the actions relating to change management. In addition, a general roadmap for initiating the Lean leap in the entire department is developed as the author's suggestion of the way forward. As a conclusion, it is clear that taking the first lean leap in the organisation is expected and should be started.

**Keywords** lean management, lean financial accounting, change management

**Pages** 51 pages

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## 1 INTRODUCTION

The thesis is presenting theoretically main principles of Lean management and related ongoing trends in Financial and management accounting sector for adopting the lean way of working. In addition it reviews the methods for efficient change management in order to present the lean methods in as easily approachable format as possible.

Environment where the research is taking place is Financial Services center for a Finnish manufacturing group. The study has been done with a financial closing and reporting team of 12 members performing variety of financial accounting related tasks. Ongoing trend in this department is to develop the ways of working to regularly more and more efficient and even out the regularly peaking workload at hectic period closing times.

Another variable is to deepen the co-operation with external organisation where part of the financial closing tasks have recently been outsourced. The second organisation is partly well in depth with lean management principles related to financial closing processes, which in some cases causes disconnect of understanding.

The result of research is expected to bring methods and tools to support the high performing accounting team to take the steps towards the lean thinking and comfortable use of lean methods. As an outcome, the research material and presentations are expected to act as a vessel for first steps in change management of new way of working.

Having familiarised themselves with lean trends the team and process unit is expected to be able take the educated review of the closing process in coming 6 – 12 months as one part of the development projects. Part of the outcome of the research would be training materials and methods in facilitating the lean discussions in the team avoiding overload in terminology.

Theoretical framework concentrates in few main trends:

- Lean methodology and main concepts with attention to financial process aspects

- Change management activities in team management

Research methods are presenting the planned tools to gather current status of individual understanding of lean methods. In addition the research activities themselves are planned in a way to already start the change management initiative early on this year through group discussion.

## 2 THEORETICAL FRAMEWORK

### 2.1 Presenting Lean and Six Sigma methodology in literature

Lean and Lean Six Sigma are adjacent theories for efficient process flow management. In following pages I am touching both Lean and Lean Six Sigma theories and also presenting some comparisons between these. The foundation of Lean Six Sigma lies in production environment. George, Rowlands and Kastle (2001, 9 - 10) are presenting the four keys to Lean Six Sigma. Main principle is to satisfying the customer's needs through high quality of a product or service. The high quality is reached by improving the processes and getting rid of errors and poor output. Teamwork is essential key to cross-organisation successful development. Lastly, the organisation should focus on analysis and ensuring all decisions are based in research and data.

Another way of describing Lean thinking is to use five step flow described by Womack and Jones (2003). Womack and Jones are going through the principles of lean management of production process. I am presenting here a summary of the process of identifying five steps in lean process flow.

#### 2.1.1 Defining the value for the customer

According to Womack and Jones (2003, 16 – 17) the value is understood as something the customer sees as value to him. Voice of Customer (VOC) is main building block in lean thinking. The company should focus the product or service planning based on what the customer sees as valuable and is ready to pay for it. This specification should be done in co-operation with the customer in order to get the real view of the value-adding product or activity in customer's perspective, however in the end the value is created by the producer. There are risks involved in the situation when a product is designed with belief of producer's on ability to "sell" or explain its usability to the end customer.

### 2.1.2 Identifying the value stream

The value stream holds all actions and resources that are needed for one product. It is a combination of three critical management tasks. (Womack & Jones 2003, 19.)

- 1) problem-solving task running from product concept to design and production,
- 2) information management task to handle receiving the order to production and delivery and
- 3) physical transformation task to create the final product from the resources.

Lean process creation requires new way of thinking and transparency within these tasks and extending also to beyond company boundaries to supplier's and customer's fields. Womack and Jones (2003, 19) recommend that the definition of the value stream is done by middle management to senior management level in the organisation in order to ensure adequately high level of perspective is reached, in other words the helicopter view.

If the staff that closely involved in everyday production process are involved in value stream mapping there is a risk of losing the objectivity. On the other hand, Womack and Jones are giving great emphasis of the production staff in next steps of the lean process ie. the practical steps that involve creation the flow. (Womack & Jones 2003, 19.)

### 2.1.3 Creating the flow

Creation of flow is essential part in entire lean production chain. Womack and Jones (2003, 52) advise to first focus on the object that is being produced and never let out of your sight. This means the route and flow of the object should be mapped and analysed to detect the stoppages, bottlenecks and need for logistics and potential rework. Once these are detected – the production process should be vigorously streamlined in order to get rid of these hindrances of production flowing seamlessly. One should get rid of the old system and rethink the whole platform if necessary ignoring the traditional boundaries of resources, jobs, careers, functions etc. In creation of flow Womack and Jones are presenting certain terms and ways of working to achieve the lean production system. (Womack & Jones 2003, 52.)



### **Detection of waste**

Waste, ie. Japanese word muda, is another center idea on Lean production. In short, “waste is any human activity that absorbs resources but does not create value” . Examples of waste in production line can be for example that production functions has too few parts to proceed (muda of waiting) or they have too many parts in use that are creating the block in production (muda of overproduction). Example close to the financial side the timing of the activities and the quality of the information received – wrong information causes stoppages and additional time used for the questions. (Womack & Jones 2003, 15.)

### **Kaikaku – finding the rapid changes**

Kaikaku (Japanese) means roughly the radical improvement. It means the point when a waste is detected an immediate and strong action is taken to remove it. The target is not to wait until the whole planning process is completed or a decision has been reached somewhere. The underlying ideas is that the improvement is giving immediately some yield – and not after months of waiting of 100 % perfect outcome. (Womack & Jones 2003, 23.)

### **Kaizen – continuous change**

Kaizen (Japanese) is another typical feature in Lean thinking. Kaizen means the good path or in other words continuous and increasing steps of improvement (Womack & Jones 2003, 23). It means that after initial improvements the whole process is revisited again and more and more initiatives are done – in search of the optimal performance.

Kaizen event process according to Jean Cunningham (2007) typically would last 3 to 5 days. The event costs of documentation of the as is process, then the improvement are designed based on lean principles and then they are approved or rejected. A plan how to change the processes is agreed on. Finally the agreed steps are implemented – and followed on. (Cunningham et al 2007, 211.)

### **Visualizing the production flow**

Womack and Jones are presenting also some other production related improvement methods. One of the tools for enhancing the information and production flows is to visualize the process. Through various flow charts and production process key figures the team is aware of the smoothness of the production and can adjust their work accordingly. Interesting fact in the lean management process is that the fully running production is not always the target – but the smoothness and flawlessness of it. In production environments, it is usual nowadays to use visual charts or screens informing the production lines of the flow time.

(Womack & Jones 2003, 56.)

### **Usability of flow**

Womack and Jones stress out that it is possible to use the fundamentals of flow in several types of various activities. Firstly, the process management can concentrate on managing the value stream on existing product or service lines. They can overcome any borders and limitations within the organisations. Optimizing the tools used in production with correct sizing and location will boost the production efficiency. Last, applying the lean techniques to all ranges of organisation to allow the creation of full-scaled flow. (Womack & Jones 2003, 64.)

#### 2.1.4 Creating pull

**“Pull in simplest terms means that no one in the upstream should produce a good or service until the customer downstream asks for it” (Womack & Jones 2003, 67)**

In practical terms this procedure is not so straightforward a task to achieve. Womack and Jones advise to start again to allow the customer to express real demand for the product and then work backwards throughout the whole production system steps (Womack & Jones 2003, 67).

In their example of a company called Bumper works Womack and Jones present the summary of the pull method: Don't make anything until it is needed; then make it very quickly. Pull system sets up some requirements and challenges to the production. The machinery should be able to be set up quickly to the altering set-ups of the order or batch at hand. The ability to the quick change-overs is essential to lean production line in comparison to “old” way of mass production thinking. (Womack & Jones 2003, 71.)

### 2.1.5 Aim for Perfection

Lean process is continuous cycle of revisiting the basics, redefining the value and reviewing the data. The mind set of continuous improvement is demanded. The basic principle in lean is to compete against perfection (in order to reach it) and not so much against other competition. To be able to lead organisation to the right track the management should understand themselves through previous four lean principles what it is they understand by perfection in their company. After this thinking process the management should choose the activities and paths that eventually lead closer to the perfection.

However, the continuous pursuit towards perfection is not only the management team's task. In more developed stages of lean company the full staff should have a clear view of what the perfection is for this organisation and actively work towards this. In the beginning, however it is the management that usually are able to see the big picture and the final result targeted – and they are the ones investing their energies to banish the waste.

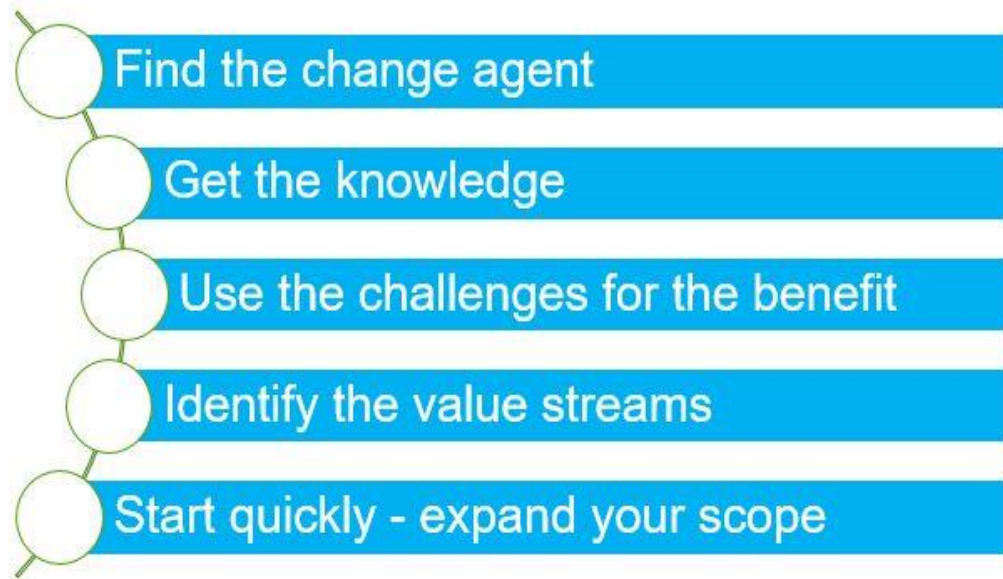
In the beginning, Womack and Jones recommend that only few identified wastes are gotten rid of to get positive outcomes and to avoid the development energy to be fragmented into several directions. After this, the next items of waste are selected and so on.

Womack and Jones are emphasizing the transparency of the lean principles. The lean system should be open process to realign the people and resources to flowing work. A massive number of improvement tasks and problem solving is required from entire staff – whose involvement is elementary. (Womack & Jones 2003, 95.)

There are few roles in the organisation that are needed to be manned before taking the lean leap. A change agent is usually an outsider, powered by the management who can question and rearrange the transitional ways of working quickly and reliably into new order. A change agent needs also a champion – management to back him and rely on him bringing positive improvements on board.

## 2.2 Getting ready into for First Lean leap

Womack and Jones are presenting list of actions for any lean organisation to start working on – preferably in this following sequence (Womack & Jones 2003, 245 – 262).

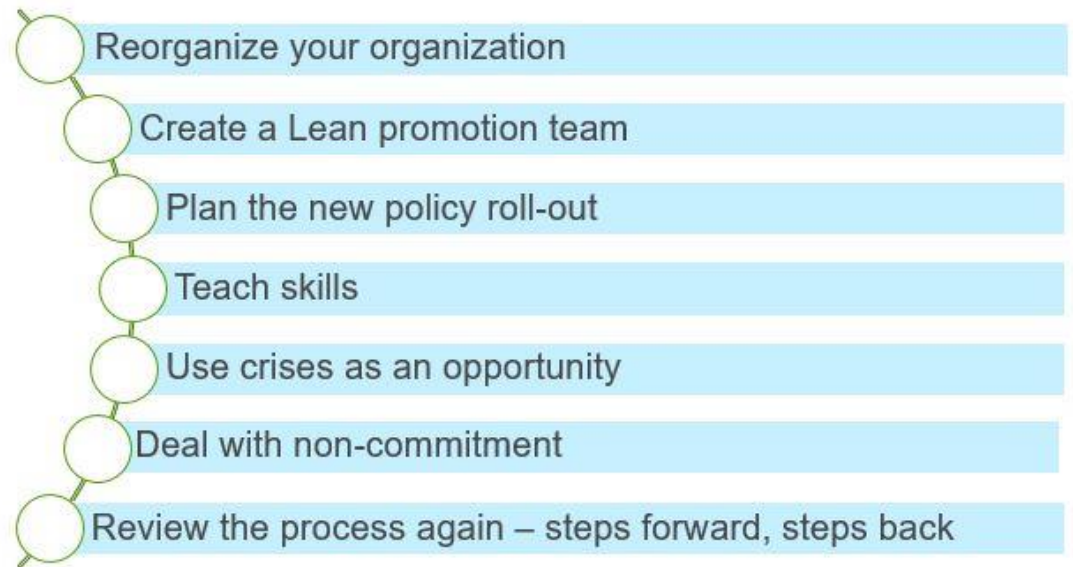


Picture 1 - Taking the First Lean Leap.  
Adapted from Womack & Jones 2003, 245 – 262.

- a) Find a Change Agent which is an individual with passionate mind-set for achieving results.
- b) Finding the knowledge through studying the methods independently, through training or best option – get a sensei (or consultant).
- c) Find a lever by seizing the crisis. For example, find a sub organization in crises and use lean methods – or find a customer with lean methods in use. Alternatively, forget the Grand strategy for a moment but take an honest look of your company's challenges and opportunities
- d) Identify your value streams and map them by product family
- e) Begin as soon as possible with important and visual activity as the potential for improvement is large and creates positive momentum – make sure it is successful! Demand immediate results – the immediate feedback is an essential lean technique. No not spend much time in long planning or benchmarking.
- f) As soon as you get the momentum, expand your scope through looking outside the production, the ordering system, the office, the logistics, the accounting etc.

### 2.3 Action list for taking the Second Lean leap

Womack and Jones emphasize the creation of the lean organization as taking the second Lean leap. They suggest following actions on the organisation management (Womack & Jones 2003, 319 – 326).



Picture 2 - Taking the Second Lean Leap. Adapted from Womack & Jones 2003, 319 – 326

- a. Reorganize your company by value stream and product
- b. Create a Lean promotion team - A dedicated pool of resources that are keeping the continuous improvement, quality, production time enhancement etc. going
- c. Plan how the new policy is taken into use  
Plan a way and the steps that are taken first, then second steps – instead of developing everything at once
- d. Teach lean thinking and skills to everyone  
Higher levels of management should learn to listen the primary work team in practical implementation. However, the frontline does not always understand the total flow of the value stream. Therefore, it is essential that the lean skills are trained all members of the staff – otherwise the methods remain too high and are not effectively used where it really matters.
- e. Use the crises at the organisation as opportunity for a change

Crises – or creation of crises – opens a great chance to implement lean ideology.

f. Proceed firmly with removing the non-committed people

If the Lean leap is successful, it is expected that you get improved production with less resources – therefore a plan for the people resources is required. The change is supported stronger if there is no immediate impact to the workforce by numbers but you should have a clear picture. Note also, there are members of the management or the team who are not willing to contribute to the common goal. These types of delaying resources should be removed.

g. When you have corrected something, review and correct it again

Remember – to aim for perfection through continuous improvement again and again. There will be setbacks and they can be learnt from in following steps when proceeding on with the plan.

## 2.4 More straightforward approaches for Lean studies

### 2.4.1 How to succeed with continuous improvement

Joakim Ahlström is using very clear examples based on orienteering themes to simplify the steps for change in lean company in his book How to succeed with continuous improvement. In order to find the correct way for implementing the complex changes in simple format, I have modified Ahlström's defining questions to plural format to suit more easily into team base situation (Ahlström 2015, 11.)

Where are we? Where are we going?  
How are we going to get there?

These questions seems extremely simple, but in my opinion this discussion in the beginning of the successful lean project and change management priorities related to it, are essential to be discussed in suitable forum.

The organisations work differently – some very manufacturing orientated organisations may be able to lead the lean change through more authoritative change process. Other organisations, perhaps IT or finance related teams where majority of the work relies on individual being able to manage and develop the work independently may rally benefit from more profound discussion of wanted directions.

Ahlström is asking the team participating to the “board meeting” to first to think of the value the customer is receiving from the team’s work. Secondly he asks the team to map out and define the unnecessary hassle in the team’s work. He points out the clear target to remove first hassle and time used for searching and/or disorder of things. These steps are really defining the place we they are right now. (Ahlström 2015, 24.)

The second question – where the team should go – is visualised with the boards and evidencing the gaps from current status and customer’s wished stage. In defining the methods the team will reach stage they are wishing using fishbone diagrams – showing the questions why and how to resolve the obstacle in reaching the customer focus.

Ahlström is summarizing in my opinion the idea which is very true also on financial operations (which in principle are supporting organisations for actual businesses and therefore important to keep in mind the status of the internal customer): According to Ahlström – when **everyone in the flow meets the internal customer’s needs without any unnecessary hassle, the perfect flow appears.** (Ahlström 2015, 22.)

#### 2.4.2 Six Sigma methods in use in Service industry

Michael L. George is describing interesting points of the service industries I wish to highlight as the Financial services can indeed be linked in as a service for (internal) customers in this case (George 2003, 12).

First, service processes are often slow processes which leads to the fact they are expensive. They tend also easily have poor quality. The slowness is caused by too much work-in-process activities and often very complex service offering. Typically, 80% of delay is caused by less than 20% of activities. In customer eyes, the process seems to add no value to the customer

Lean Six Sigma approach has very similar ways of implementations as prescribed in the Lean (manufacturing). The priorities according to George (2003) are:

- 1) Managerial engagement
- 2) Allocation of the required resources
- 3) Everyone to receive some training of the matter
- 4) Any variation in the process should be eliminated.

Lean Six Sigma is aiming to enhancing the process speed by taking away the waste and opportunities to the defect cases in the process. For example – Six Sigma capable level means defect yield level of 99, 99% defect free cases ie. 3.4 defects per million opportunities – which is extremely trimmed operation by the process. (George 2003, 25.)

### 2.4.3 Comparison of Lean and Six Sigma

Michael L. George claims that there are significant differences in these two business improvement methodologies, but especially for service industry it would be beneficial to combine these two methods to optimal yield. This combination is called as Lean Six Sigma. Below I have collected a summary of the characteristics of Lean and Six Sigma as presented in the book.

<b>Presenting the main focus areas in Lean and in Six Sigma</b>	
<b>Lean</b>	<b>Six Sigma</b>
Focus in maximizing business velocity (optimised production speed)	Focus in finding opportunities and taking away of defects (standard process)
Tools for analysing process flow and delay times	Variation is an obstacle for delivering high-quality services
Separation of value added and non-value added work	Data-driven decisions and set of quality tools
Means for quantifying and eliminating the cost of complexity	Cultural infrastructure to obtain sustainable results
<p><b>Key finding</b></p> <p>These two methods interact and reinforce each other as they can be run parallel runs -&gt; not to focus just “Speed” = Lean or just “Quality” = Six Sigma but to make the both happen.</p>	

Table 1 - Presenting focus areas in Lean and Six Sigma theories - Adapted from text by Michael L. George (2003, 7).



### **Why should Six Sigma be using Lean principles in combination?**

Michael L. George is approaching the benefits of using both methods linked together when thinking of the specific approach for the service environment. The manufacturing platform does not fully fit into the service industry – however, there are clear benefits to identify. When identifying the waste in the process, Six Sigma is focusing on data driven analysis, whereas the Lean principles have advantage in robust value stream mapping and visualisation which benefits the sharing the tasks into value adding or non-value adding. (George 2003, 52.)

Six Sigma does not touch the pull or WIP theories very strongly, where as Lean principles have it inbuilt method – which is improving the process speed. Lean has several inbuilt tools such as 5S, time value analysis etc. available as part of routine analysis. Also kaikaku and kaizen actions – Lean rapid improvement methods – are very useful also in service environments. The Six Sigma value added goal is reached faster if Lean takes away non-value added steps. Lean is more agile in practical level to redesign and make changes to the activities. (George 2003, 52-53.)

## **2.5 Lean approach in use in Finance organisation**

As Lean concepts is developed based in manufacturing and flowing over there is not so many principles for specifically accounting related tasks. However, Steven M. Bragg is highlighting the following concepts in The Lean Accounting Guidebook (Bragg 2014, 1).

Minimal resources usage in financial services is nowadays a standard requirement. Financial information is important part of company's reporting but as Finance can be viewed as supporting function the resources used in this part of organisation should be limited.

Maximising cash flow through efficient collection procedures in financial department.

Quick reporting through short throughput time of financial numbers.

Investment in cost analysis area and enhancing the analysis (Bragg 2014, 1.)

### **2.5.1 Best practises for financial reporting**

Bragg is presenting several best practises for study especially regarding the financial statements process, in other words the financial closing process my examples are handling in this thesis. I have chosen few ones to highlight the impact to current process in my organisation. (Bragg 2014, 97 – 103.)

**Task interdependency analysis** – generally clear end to end picture of the tasks impacting to financial reporting. The analysis promotes the understanding where are the typical points that delay the closing work. Collect information early. Through early receipts of information the tasks can be optimised to alleviate the peaking closing days. (Bragg 2014, 97 – 103.)

Studying **the content of accruals** with target to complete the accruals early and finding out if the logic for accrual would support of making the accruals prior the closing starts in full speed. (Bragg 2014, 97 – 103).

**Correct errors early** by introduction of controlling points along the closing when it is possible to save working time at the very tight end by reviewing the figures early. (Bragg 2014, 97 – 103).

**Centralizing the accounting system** Bragg is promoting the idea of centralizing all accounting work to a single location. In many cases this has been done in large companies by introduction of financial service centers. However, next trend has been outsourcing this type of basic work to other locations returning to many layers of services. (Bragg 2014, 97 – 103.)

## 2.5.2 How to use 5S principles in Financial accounting

Heikki S. Pöri introduced 5Ss (sorting, straighten, shining, standardize and sustain) in his lection Tuottavuutta ja tyytyväisyyttä Lean-menetelmillä (Pöri, presentation 26.11.2015 ). 5S is typical toolset used in production platforms in designing the workstations in Lean way. I am adjusting here the 5S principles to the work of our financial reporting team's work as follows as my examples of each step.

Sorting in financial tasks could mean understanding of the functions of the accounting and reporting tools. In addition, the information flows that are needed in the processes. Straighten – in financial department, the tools are mostly in the databases which should be organised and information updated regularly – no waste in trying to find the data in various locations and sources. Everyone is responsible to maintain the data in correct location.

Shine – ensuring data is latest one and reviewed regularly and the locations (such as databases, shared mailboxes) are kept tidy. Standardizing means all the previous good practises are enforces to ongoing routines. Sustain means to ensuring that the agreed standards are kept up and repeated in same fashion. Any process is threatened by quick decline of the agreed standards are not followed through.

Adopting 5S has several advantages, such as less waste in working time and finding data, therefore improving the productivity. It may release resources when non-required tasks can be eliminated. Any discrepancies and differences to the process are easier to note and action. There should also be impact on safety at work (at least on mental stage less stress) and increasing satisfaction to work. 5S is also very low cost implementation to do with high impact.

### 2.5.3 Concepts of various types of waste

Heikki S. Pöri is presenting three types of waste, which in their Japanese terms are called as muda, muri and mura. First muda is clear waste, a process the does not create value for the customer. Second Muri is overdoing the task – everything that exceeds the available resource's natural borders. Third type mura – uneven production is relating to high peak times or rush times that causes inefficiency in the process flow. (Pöri, presentation 25.11.2015.)

These three types are very much present in any financial closing team as typically the workload fluctuates very heavily from the highly schedules reporting peaks to more relaxed and less structured preparation times. In my opinion the identification of these wastes and development of preventing them and challenge the existing procedures would emphasise the flow of any financial closing.

#### **Information related expert work and lean**

Sari Torkkola is discussing of the lean characteristics of flowing work that touches the expert or knowledge related work. She identifies three types of problems often touching expert work: variation, overloading and waste. (Torkkola 2014, 1.)

In expert work this variation or even fluctuation can mean for example: Financial closing schedule causing peaking workload, firefighting of the urgent cases, workload fluctuation between the days and differences in skills of the individual team members. Variation commonly causes the other waste types of overload and waste.

Overload typically tells of the team member workload that causes even absences when peaking extremely high. As the human being is essential part of the expert work, a wellbeing has significant impact to the work. Typical signs of waste in expert work are good to be recorded to identify potential quick-wins for development steps. Sari Torkkola gives few examples:

Overproduction means we do too much, too early or just to be sure. It may be even unnecessary measuring of the work or inefficient meetings. Incorrect prioritisation may cause overproduction in area what is not yet required. Unfinished work – in other words all that work that has been started but not been able to finalise. Waiting – the task may be transferred from one person to another several times – each step causing waiting time. (Torkkola 2014, 1.)

Unnecessary movement of information or material – for example data entry in between the tasks. Here one should also consider the time spent to find the data. Organization structure that promotes working in silos and transferring the task from one person to another. Failures and rework is needed when there is a fault in the work it is brought back when it is parties done twice. First time right principle is essential, especially in the beginning of the flow. Over processing of the data – producing unnecessary reports. (Torkkola 2014, 1.)

I recognise these phenomena specifically for modern financial services where the focus from transactional services is moved rapidly towards expert and information focused way of working. The transactional work is either outsourced or even automatized using new robotic technologies. The work that is left is very heavily laying on information handling, analyses and project management type of work.

Important note by Sari Torkkola is that it is not good practise to directly tell the expert that the work he does waste. The above characteristics can be used in the analysis as supporting factors but she suggest to rather to ask the question – how it is possible to reduce the throughput time? (Torkkola 2014, 1.)

Sari Torkkola is presenting methods for creating more flowing process in expert organisation. Firstly, to eliminate the phases in work and unnecessary transfer of the work to next person. Secondly, focus in changing the order and rhythm of the tasks and combine the phases of the tasks into flowing structure. Thirdly, put the pull factor into action. Visualize the current status – for example with board. Eliminate unnecessary moves and transfers of tasks. Lastly and most importantly, standardize the work. (Torkkola 2014, 1.)

#### 2.5.4 Value Stream Mapping – a deeper look into value creation and waste detection

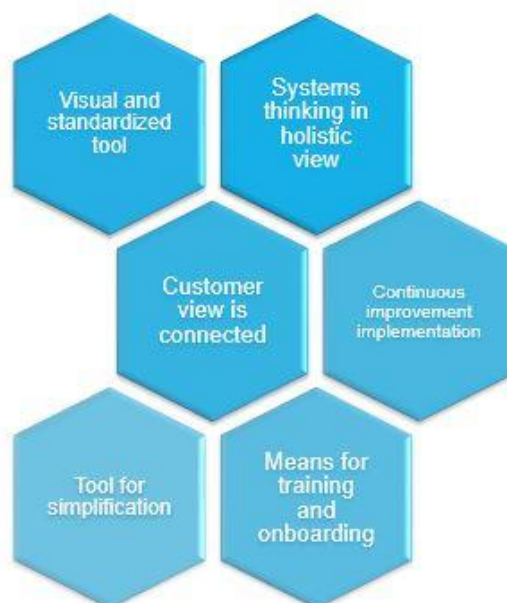
In somewhat flexible finance organisation I consider making the changes to the financial accounting flows quite smooth as the team is accustomed to changes and development steps. The problematic part is to recognise exactly what needs to be changed and how? I am presenting a little bit more insight into value stream mapping processes to bring out theories to assist this review.

Womack and Jones present a method for reviewing the production process and its actions and categorizing them into three clear categories (Womack & Jones 2003, 38):

- 1) The actions that actually are creating the value for the customer.
- 2) The actions that are not creating the value but are currently needed for production or development and
- 3) The actions that are not creating the value – can be eliminated immediately

Through asking these question every time when part of the financial process is analysed I believe there is way to identify the actual, correct value stream per each subtask. As a word of warning though, financial accounting being a process that is also regulated not only of the direct “customer” but also through audit and legal requirements – the actual customer’s value deserves more consideration.

Karen Martin et al is presenting the idea that there are various types of value streams in any organisation – not purely a production related. Outside core value stream is also support value stream, such as the financial services. She is emphasizing that value stream mapping should stay above the basic production process but to be able to take higher level perspective (a rooftop view) – this requires defining the strategic direction and in that way requiring a leadership involvement. (The Karen Martin Group, 2013.)



Picture 3 - Summarizing the benefits from value stream mapping – adapted from The Karen Martin Group, 2013.

Karen Martin presents ideas of sub optimization against optimizing the whole value stream. There is a risks involved in optimizing the part of the process to very well-functioning as the other departments may not be able to absorb the production flow (The Karen Martin Group, 2013). This may be true for core process that should work in flowing method - however for support process I see very limited risk in having financial organisation working in optimized manner and really no circumstances where there would be conflict with other departments, on the contrary – the earlier the information is produced and available, the better.

### **Introducing processes for problem solving**

Other set of tools for value stream mapping can be borrowed from Lean Six Sigma where the emphasis in the analysis lies in data collections and analysis of the data. Abbreviation DMAIC stands for Define-Measure-Analyse-Improve-Control. George, Rowland and Kastle are using these steps to describe the data-orientated problem solving model for Lean Six Sigma processes. (George, Rowland and Kastle 2003, 58 – 77.)

The development starts with careful definition of the issues; a common view of the problem and defined action plan how to proceed as a team, databased analysis of the current environment. Measuring this data and developing the as is view based on only facts and reality in the process flow, not on assumptions. (George, Rowland and Kastle 2003, 58 – 77.)

Analysing the data follows with series of improvement ideas to be implemented in order of criticality allowing quick wins. Improving the process by putting the ideas into pilot test and then all rounds deployment. By controlling the new activities through training and documentation the team ensures the change will hold – preventing the return to old ways and foreseeing the new opportunities. (George, Rowland and Kastle 2003, 58 – 77.)

Information related – or so called intellectual work – is very much harder to specify as clear cut task steps. However, as the large part of Finance process is also related to thinking and analysis it is good to highlight steps for mapping of these processes. (Staats & Upton, 2012.)

First step is to identify the repeatable parts of the thinking process and record them accordingly. Do not try to specify it all in one go as some tasks are so rarely done it is not worthwhile to address them in the first round. Convince the doubting parties with data analysis – one of the outcome is that information worked can focus on the tasks creating most added value. Finally after initial rounds study further of the so called quiet work. (Staats & Upton, 2012.)

The benefits that can be gained from value stream mapping I see are giving the fundamentals and reasoning for the push for going through the rigorous work of the mapping process. This advice for assessing the value streams and identifying the wastes in it are delightfully practical and helps in tackling a slightly more uncharted world of expert type of financial accounting – however I still think the accounting stream can be looked into as a production process as well as any manufacturing product flow. A finance process can even be more straightforward to streamline.

#### 2.5.5 Lean calculation challenge for Financial accounting

When participating into group discussion in course Lean teollisuudessa (2016) the participants brought out strongly the typical dilemma faced in production teams that how to convince the traditional financial controlling department of the need and reasoning of the lean development projects. It is evident that traditional cost accounting does not reveal the clear benefits for production efficiency and it seems there can be disconnect between production engineer role and financial controller role.

This is also studied by Eero E. Karjalainen (2016) in his article of comparing results of lean improvements with not so evident results in cost accounting. In short, showing the contradiction in table format.

<b>Lean improvement results</b>	<b>(trad) Cost accounting evidence</b>
Throughput time clearly shortened	Turnover remains the same
Improved quality	Production costs remain the same
Improved delivery rota	Operational results decreases
Smaller facility usage	Sales per employee stays same
Turnaround speed of the inventory	Cost per sold unit increases when it should decrease

Table 2. Adapted from Eero E. Karjalainen (Lean konfliktissa kustannuslaskennan kanssa, 2016)

There is conflict between traditional cost accounting and lean accounting, which demands focus in financial accounting teams should the organisation choose to adopt fully the lean methods. The finance team is required to adapt to specific Lean accounting and using accounting methods for cost calculation taking into account lean characteristics.

Ross Maynard underlines to supporting role of the reporting functions in the company that is adopting the lean way of operation. According to him the lean company must be capable of providing timely and correct accounting data for support lean decision making – at its best on daily basis. This strong need to speed to the reporting cycles will put a large development mode also to any finance organisation. (Maynard 2008, 36.)

Maynard presents that the Contribution costing should replace absorption costing, If the stocks are kept low, there is minimum need for inventory accounting related practises. The focus of reporting is real costs at real time with less attention to accruals – as the accounting is also trimmed to work within the same flow as the production itself. Finance organisation needs to be able to deliver data in form that supports decision making of a certain production flow manager that has PL responsibility. There is new demand for management accountants to be able to deliver information on a daily basis – in other words deliver material that genuinely assists in forward-looking decision making. (Maynard 2008, 36.)

Akachi et al (2012) are also highlighting the need to change in financial accounting way when lean organisation mode is adopted. When standard accounting is focusing on annual standards and focusing on prise maintenance, lean accounting needs quicker reporting cycles and focus on process decreasing. Lean team is setting the goal and analysing the reasons why they are not reached whereas traditional accounting team has set up the standards and following up the deviations.

Akachi et al recommend order 1. Creation of financial indicators fir for lean system 2. Following the value flow and developing pricing mechanism for value flow and 3. Removing unrequired transactions and complexities from lean accounting (Akachi et al. 2012, 1042). In this particular case for Financial accounting the calculation dilemma is not straightforwardly evident as the whole organisation for which the financial services are produced for is vast and there is individual sub organization steps made for lean ways of working. The actual dilemma for accounting the lean is not evident so far – but as professional organisation is good to be aware of.

## 2.6 Change management and Lean implementation

I am using literature theories of change management in challenging the team in changing the way of working. There are examples in Lean leap for production environment, however also literature carries examples for Service industries of changing the processes.



### 2.6.1 Attention to change management in adopting lean practises

David Mann is focusing in his book *Creating a Lean Culture* (Mann 2005, 9) into sustaining and carrying on the lean operations once the lean change has been started. His is focusing very strongly in Lean management system – the ways and controls the managers should adopt to ensure the lean change is carrying on and not only left as short-lived burst of improvements instead of through change in the operation culture.

#### **Characteristics for a Lean leader**

Another take to lean leader is provided by Jeffrey K. Liker, who is presenting four stages for inspiring lean leader, who should be coaching and developing the skills of the teams, committed to develop also oneself, providing support for the daily improvements and creating a vision and targets, that are related to this vision. Through lean leadership the team is tied to developing its skills and competencies and bringing the creativity for entire organisation to use. In a nutshell, no organisation can be perfect – but it can try to reach it (Aalto Leader's insight, 2016).

### 2.6.2 Lean Management Elements

Mann is presenting the principal for elements of the lean management\_ Leader standard work, visual controls, daily accountability process and discipline (Mann 2005, 23 – 24). Leader standard work is emphasizing the added requirement of team leader's, value stream managers and also engagement of higher management teams to thorough scrutiny and supervision. According to Mann, the additional supervision work that is spent here on timed routine checks will be compensated with added throughput and productivity (Mann 2005, 11). The clear daily checking routine also define clear expectations of the focus of the processes.

Mann defines different focus areas for team leader, value stream manager and the general manager – all of which are responsible in implement the lean management strategy but with varying points of efforts implemented. For example, team leader is very much responsible of the hourly flow of the process pitch with almost 80 percent of the time spent on the floor. Supervisors work include staffing, getting the work started and reviewing the teams' outputs and new assignments. (Mann 2005, 34.)

Value stream manager focuses on daily accountability in ensuring the value stream is fulfilled and also providing support to the supervisors and team leaders when so required – through training and gemba walks. (Mann 2005, 27).

**Visual controls** are showing the actual performance of each line or task – and when they are filled in regularly they also show off any problems emerging in the flow. The team leaders and also value stream leaders have an opportunity to see and clear out any obstacles in the processes and also focus on long-term sustainable ways of ensuring the problem do not emerge again. (Mann 2005, 29.)

**Daily accountability** process leans on visualizing the expected performance vs the current stage of performance.

**Discipline** – with this discipline Mann is especially defining the manager's disciplined way of working in implementing the lean management culture. The supervision must be structured, timed and always conducted as expected. One method is the scheduled gemba walks on the platform to check on the visuals and discuss of the emerging issues. (Mann 2005, 35.)

**The gemba walk** is routine part of leader's routines. Gemba walking is not only checking routine but it is also an opportunity for teaching and training. A more experienced sensei should walk the floor with trainees and provide discussion points and tasks for learning. One part of the gemba walk is to study for example previous week's standard work for review and learning. (Mann 2005, 35.)

Mann is giving examples of asking the basic questions during the gemba walks:

What are the practises in here?

How often the status is looked into by the management?

Who is involved in process improvement activities?

The gemba walks are one very visual opportunity to keep up the lean culture and repeat the message of lean way of working and methods of continuous improvement, and showing of the management commitment to the lean culture in the organisation.

### **Lean management principles fitted into financial team**

I am reviewing these management culture steps presented by Mann and having some trouble in fitting them easily into a financial services team, where there is rather high level of independent way of experts working. At first it seems these principles are mainly fitting for manufacturing environment. However there are topics that can be adopted in expert organisations as part of the large value streams when thought through. In addition, I think there are several points to highlight for team leader also on the professional organisation in terms of giving feedback.

The topics Mann is giving as examples of giving positive feedback for when a team member is succeeding in lean work: volunteering, positive attitude, offering a suggestion, avoiding a problem and extra effort. More useful feedback also in constructive way forward: to start and stop in time, keep the standardized work, meeting the quality requirements and following the 5S processes. (Mann 2005, 151.)

### 2.6.3 Steps for change management

Change management and attention to planning of the actual change steps are easily forgotten when actual process takes over and Lean implementation is at hand. I am taking brief look into traditional change management aspects to remind of the importance of practical approach here supporting the total success.

Anneli Valpola is presenting in her book *Organisaatiot yhteen - Muutosjohtamisen käytännön keinot* the main practical steps for planning any of the change activity within the organisation (Valpola, 2004, 29 - 33). In following pages I am presenting these steps first as overall and then make a fit of these into the case at hand.

Definition of the need for change

- 1) Creation of the common view
- 2) Taking care of the ability to change
- 3) First actions
- 4) Anchoring change into practise

Valpola defines that if any of these steps are missed out in the planning, the final result will suffer.

#### **Definition of the need for change**

The management needs to define the grounds and reasons for need to change the personnel. This would also requires some updates analysis to ensure the personnel are on the same page of the current situation in terms of financial, competitive factors etc. (Valpola, 2004, 29 – 33.)

#### **Creating the common view**

The required and result and the step to be taken to reach this goal is explained to the personnel. This mapping of the actions are providing the direction to start the change initiatives. This common view must be the basis for all change management related communication. (Valpola, 2004, 29 – 33.)

**Ability to change**

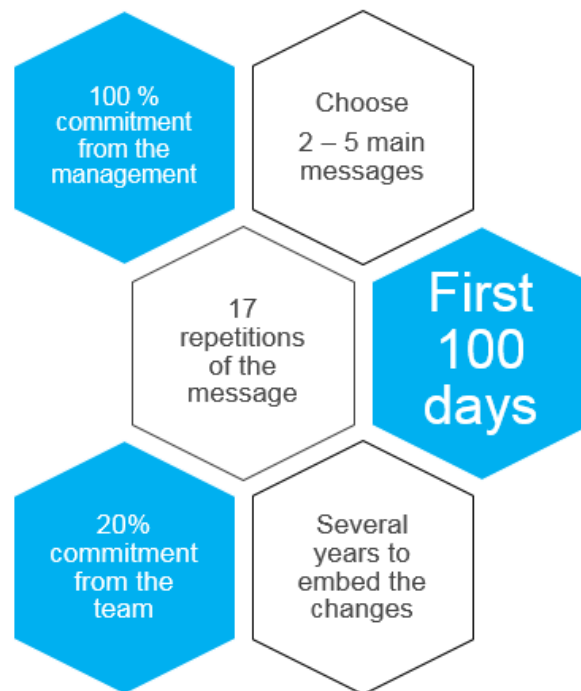
Several factors affect to company's ability to change. The factors can be for example company's structure, tradition, size field of business etc. In some companies the constant change or for example working ways based in entrepreneurship are supporting stronger abilities for rapid changes. Each time the ability of a team, function or organisation should be assessed facing the change. The motivators and change agents should be identified. (Valpola, 2004, 29 – 33.)

**First actions**

Normally the first 100 days are very decisive of which direction and how the change will take place. Therefore first actions are really literally ground-breaking. The first messages of the changes are giving concrete indication of the level of the change in organisation. Therefore the message content must be thought through carefully. Valpola presents in her book that to ensure that the change message is understood and remembered it should be repeated minimum of 17 times in different levels of communication. (Valpola 2004, 46.)

**Anchoring the changes into the practise**

The true change in operation takes a long time (months or even years). The change management should be continuous, relentless journey embedded deep into practises. In short, Valpola is presenting the critical figures for adopting the change (Valpola 2004, 46).



Picture 4 - Key numbers for adopting the changes. (Adapted from Valpola 2004, 46)

- Choosing 2-5 main messages
- 17 repetitions of the message content is required on average
- First 100 days will create overall look of the change
- 20% personnel committed to into the change to get is started
- 100% commitment from the management
- Several years of work to embed that changes into the organisation

In addition, Valpola recommends also use following way of working when planting the change deep into the organisation. Pay attention to communication: Ensure the message content is clear and it is repeated several times in different forms but with the same main message. Make sure the management and middle management are delivering the same constant communication. Training the personnel for subareas or themes that support the change ensures their motivation and gives them something concrete benefit. Sharing success stories of previous successes or examples of successes within this organisation boosts up the confidence for the change actions. Networking, for example using full range of experts and colleagues in assisting the practical change implementation. (Valpola, 2004, 29 – 33.)

### **Change management aspects for those not capable for change**

Several authors are briefly presenting the personnel relates challenges in those cases when there is clear resistance towards the new ways. Common guideline presented by all is not to tolerate anybody who is impeding the change and also empowerment to make difficult decisions of termination of the contracts if it seems the key people are not able to adopt and fully support the proceedings. The full change is so profound it must be adopted by all.

### **Case for Lean implementation**

In general the lean processes and more efficient ways of working – waste removal – may lead into situation where there are simply too many people in floor. This risk and negative outlook of workplaces continuity are severe hindering factors to smooth implementation.

When we are looking into the risk for job losses created by more efficient way of working, Womack and Jones are telling about an example of lean implementation in company Wiremold, where the management took the decision that no shop floor jobs were cut due to lean implementation. The cost of this was a major one and as the profits of the lean implementation were only in the future the management decided to be generous in this aspect – with the clear expectation that everyone must create value by working together in this new different way. There is no questions that the adopting the new culture was more smooth end rapid with the security of the work provided, with the clear expectation to adopt the new ways. (Womack & Jones 2003, 132.)

Absolute requirement for the management for supporting the lean culture In example from Wiremold, the company's management team was classified clearly into three categories (Womack & Jones 2003, 131).

- 1) Value creating (passing the value to the customer)
- 2) Nonvalue creating (not creating the value but at this moment necessary to run the business, type one muda)
- 3) Nonvalue creating and unnecessary (type two muda)

According to examples, typically 10 percent of the management team is not able to make the mental changes – unfortunately, in these cases reorganisation in form of releasing the part of the management is necessary to ensure the campaign's success. (Womack & Jones 2003, 131.)

Secondly, the management should acquire lean understanding themselves – through consultancy, training, self-studying, and even using a sensei to ensure they are all fully sharing the same understanding of the concepts.

Art Byrne in *The Lean Turnaround* is recommending to hiring Lean consultant with proven lean skills to keep the team in track. Second idea from him is to create a Lean expert office in-house to assist in the kaizen activities. And perhaps most importantly, is to have someone with Lean experience in the Board of Directors. (Byrne 2013, 54.)

Thirdly, the management after adopting the change themselves must actively work the role of sensei and teach the people to see the effects of lean work (Womack & Jones 2003, 134). There are room for several kaizen activities once the initial introductions has been given – to harvest the quick-wins and also to get some valuable positive outcomes for the team. The other approach Art Byrne is highlighting is to ensure also the future leaders are identified and raised with the same concepts (Byrne 2014, 108).

#### 2.6.4 The role of the change agent and management back-up

Michael L. George describes the role of Lean Six Sigma Champion essential stepping stone in the successful implementation. Typically, a Champion is regularly reporting to the Board or CEO of the proceedings and should be on boarded early on to be in the focus of development (George 2003, 188). In addition, Key influencers (change agents) can be found anywhere in the organisation with capacity to understand the Lean process and required inputs. Michael L. George recommends to be thorough in finding all of these organisation wide key influencers and ensuring to have face to face contacts with them (George 2003, 192).

During the lecture in course Lean Management Teollisuudessa defined the importance of having the full management team's support and hunger for the lean change. In particular point of operations – there was strong and interested change agent completely ready to act as a champion for the change. However, the Lean team responsible for company's lean implementations took the decision to stand by and wait until the push for the lean implementation would come as request from the unit's management – evidencing strong management buy-in.

#### **When the production people are not buying in into lean practises**

According to Mann, these problems with production floor are almost always rising from leadership related issues. The case for lean culture may be weakly presented when the buy-in does not take place. In addition, inability to address the people's quite legitimate questions of the their future and to profoundly carried out follow-up of the lean practises contribute to poor outcome. (Mann 2005, 150.)

## **Response to low performers**

David Mann encourages to first study the environment where a low performer is working prior any other actions. The following questions taken up between team leader and the worker should give a clear picture of the performance problems encountered. (Mann 2005, 152.)

- Is the equipment working correctly?
- Are the parts and materials as they should be?
- Has the training been adequate?
- Are the expectations been explained clearly?
- Have the team leader and supervisor provided regular feedback?

If these aspects have been clearly walked through, and there is still clear resistance to adopting the lean practises, the solutions are quite limited. The lean way of working requires full implementation from everyone in the team and it is recommended to remove those team members not able to cope with the change.

When these cases Mann is also making a point to involving the company's HR team into the required changes in practises from early on as adopting the lean processes may be required several changes to HR practises as well - in other words the change impacts all aspects of the organisation's process towers. (Mann 2005, 153.)

### **2.7 Reflection to a small team looking at lean management theories**

Choosing the main message - in this case there is no action plan currently to therefore a main message is not created nor communication in terms of lean. There is action for me to carefully think about the message to be used I might be able to use the viewpoints received in discussion with - Lean thinking (in Finance) is more like using common sense, and should be part of our work, every day.



Common view would be reached in two ways - first already implemented workshop that reviews the current processes and looks at them in lean way. The problem is that the team has already changed after this first initiative. Based to my discussions with team manager and team leader It is likely the lean common view has not been embedded yet deep enough to the team to really enabling the kick-start of the thinking process.

As in this case the changes are maybe done task by task reaching the common view would require common discussion in the team of the direction, task content and need to change it. Through these discussion

### **Reflection to my work and new ideas risen**

After reading through some literature of the Lean thinking I am thrilled by opportunities that Lean methodologies are providing in my work. I think the theories are not very hard to understand and they – when though about in broad sense – are providing solutions and practical advise on how to proceed in challenging platforms. In perfect textbook case, the full organization adopts lean thinking as steps taken together. However, I think even if only my organisation would see some of the ideas and could bring them down to the work.

### **Lean in Financial Services**

In my current work I face very commonly some challenges in the accounting process:

- Tight schedule pushing the workload very high
- Information may be delayed
- Errors happen and correction takes time
- Tight resources and staff turnover
- Knowledge quality is lost when tasks are changed

### **Detecting waste**

The idea of removing waste (all three types: waste, overdoing the tasks and uneven process) is a good goal to remember in the reporting process. I have noticed that through asking myself following questions I have been able to streamline my own workload with co-operation of colleagues who have adopted the thinking style close to lean.

- Why does the reporting process stop?
- Where is the data coming from, which day?
- What is the root cause for the error?
- Is the task really necessary?
- How are the tasks aligned and linked?

### **My learnings and ideas**

- Improved orientation (or advanced training)
- Explaining lean methods and encouraging individual team member to challenge the tasks and flows he or she finds to be wasteful
- Creating hunger for continuous improvement (own motivation)
- Creating expectation for continuous improvement (management motivating the team)
- Enhancing explaining the process dependencies better than before to my colleagues before the closing. This should help reaching the optimal performance and to avoid wasted time in asking the questions and doing the tasks too early (double work) or too late (waiting time elsewhere).

Thinking end to end process and contact the sources of information in various departments – to explain what Financial services is doing and to find out what steps does the source do to be able to lift the information. I have noticed communication in more relaxed moment is helping in many cases to both parties to understand each other and what is required for optimal process ( I think the communication can be broadly understood as raising the visibility of the process).

Using the opportunity to explain the lean methods to my colleagues. My department is facing continuous pressure the evolve and work more efficiently – I think through addressing some of these issues via lean thinking there are some room for improving steps for the processes.

### 3 QUESTIONS FOR RESEARCH

- What is current understanding in the team of the lean methodologies, especially in financial environment?
- What is the level of change management actions required to gain optimal response to the adopting lean closing process?
- What are the quick wins that can be identified already from the research discussions – easy to implement and/or gain consensus of streamlining the process to optimal efficiency?

#### **Current level of understanding of lean processes**

I assume that detecting the current starting level of the team member lean culture has two clear benefits - It assists in creating the tailored introduction packages for the team and it will clarify the workload required for upcoming Lean project for this team.

#### **Change management actions**

Based on previous experiences in our teams and discussions with key people, it is very easy to overserve the lean methodologies to the team members leading to inflation of the terminologies. In addition it may backfire as resentment towards ambitious project that will follow.

I claim that knowing the level of the team and starting the process slowly from the introductory actions allowing time to think the processes through independently will result to better outcome while implementing the changes in real in coming months.

Based on Womack's and Jones's examples, (Womack & Jones 2003, 276) examples, a company making lean leap may experience great turnarounds in production efficiency. In this particular case, there is constant direct need to bring down overtime house worked at the financial closing. This is a factor that pushes the team towards the change. However, underlying trends may also be reducing the work and therefore the number of jobs leading to clear reluctance to effective process improvement.

#### **Quick wins to add up to the motivation**

As an outcome, I expect to be able to formulate introduction material to upcoming project. Based in research methods, open discussion of lean methodology in group discussion situation I also expect some very quick wins to emerge. This quick wins should be identified and celebrated as small successes to support further on the change management and success of the process.

## 4 METHODS FOR RESEARCH

As the Team in question is very well known to myself as researcher, I decided that the most beneficial route to handling the themes is free group discussion. I am planning to facilitate it as part of the Team Development Day.

### **Planned schedule**

Background questionnaire

- Before November 2015 to set up the introduction correctly

Group Discussions

- Timing scheduled for November 2015, as part of the Team Development day

Analysing results

- November – December 2015

Creating training materials

- December 2015 /February 2016

### **Risks in collection of data**

Recording of the discussion hinder the free flowing discussions.  
General tiredness of development themes in general in the team

### 4.1 Background questionnaire

In order to plan the material and facilitation of the team discussion I planned a background questionnaire to measure current understanding of lean and motivation in training in Lean method is planned to be completed before the team discussions, anonymously.

The submission of the questionnaire was done via electronic query (via Qualtrics tool) in November 2015 before the Team development Day. The results were summarized and used as part of the information given at the Day.

To save time on actual group discussion; I have chosen to shortly present few central terms of leans already here in the questionnaire – firstly to measure the interest and level of understanding of the team and secondly to spark the interest for the Group discussion day.

### Background of the Group - Age, education, working experience

#### Age groups

20 – 29	3 team members
30 – 39	3 team members
40 – 49	3 team members
50 – 59	0 team members

#### Education

All 9 respondents have university or polytechnic degree.

#### Working relation with the company

< 1 year	2	22%
1 – 3 years	1	11 %
4 – 5 years	2	22 %
<5 years	4	44 %

### Previous experience with lean methods in the company

Did you take part to Team X's closing process enhancement project in 2013?

7 did not take part, 2 did participate

Yes - If you have taken part to the exercise, please comment of the learning you remember you have gained from it? *Open field for open answer*

*We didn't get any training about the lean methods but I noticed that the lean expert from consulting agency had certain basic rules in mind and he could easily use those with any process even though the actual process was not familiar to him. I guess he was trying to find different kind of waste and bottlenecks from the process.*

*Evaluate processes from different angles (for example modules, workload divided within team...), identify pain-points and create improvement plan. Follow-up of implementation of improvement ideas.*

### Awareness of lean methods –

How well are you aware of lean management theories?

How well are you aware of lean management theories?	Response	% of
1 – This is first time I hear about lean methods	2	22
2 - I have heard somebody mentioning lean methods but not really sure what it is	2	33
3 - I have been reading independently of lean theories	4	44
4 - I have studied lean theories as part of my studies	0	
5 - I have been trained at work with lean methods	0	
6 - Other awareness	0	
Total	9	100

Table 3. How well are you aware of lean management theories?

Which of the following terms have you heard before and have used either in discussion or in practice?

1 = I am not aware nor heard of this term before

2 = I have heard of this term being talked about at some time but not sure what it is

3 = I think I understand the basic idea of the term

4 = I think I know the concept well enough to understand where can be used in my work

5= I know this very well and use terminology in discussion and implement the theory with ease in my work

Lean Terms	1	2	3	4	5	Total	Mean
1. Value stream	4	1	3	0	0	8	1,88
2. Waste	2	1	2	2	1	8	2,88
3. Value add time	3	1	1	3	1	9	2,78
4. Work in process (WIP)	2	2	2	1	1	8	2,63
5. Pull theory	4	4	1	0	0	9	1,67
6. Flow	4	3	0	0	1	8	1,88
7. Six Sigma	5	3	1	0	0	9	1,56
8. Black Belt	3	2	2	1	0	8	2,13
9. Continuous improvement	1	1	3	1	2	8	3,25

Table 4. Which of the following terms have you heard before and have used either in discussion or in practice?

### **Main lean concepts**

Questions of Value stream, waste and continuous improvement concepts are formatting into short information shots of some main concepts of lean management. The purpose for these questions is to start the thinking process and continue it together with the full team through discussions.

This information is based on following references:

Lean Thinking – Banish waste and create wealth in your corporation by James P. Womack and Daniel T. Jones

What is Lean Six Sigma? By Mike George, Dave Rowlands and Bill Kastle.

### **Value stream**

Value stream means the actions that are required to create the product the customer wishes to receive. The stream should be reviewed through three critical process management tasks: 1) problem-solving task (incl. design and engineering of the product/process) 2) information management task (information flow attached to the process, for example order flow) and 3) transformation task (creating the product or process itself) (Womack, Jones 2003)

Review of the process through all of these critical steps is essential for complete mapping of value creation to the customer. It should be completed by experts that have solid understanding of the process but who can also isolate themselves from practical production process to have overall view.

### Open questions

What kind items you can identify in your team's value stream for financial accounting?

What is creating value to the customer?

Do you think you have clear idea of the current value stream of your own work?

### Answers

*The correct reporting on time and with good analysis is creating value to the customer. It would be useful to review our team's value stream to identify which actions are required and are we possibly doing something else in addition.*

*Completion of tasks on time, good co-operation between Tampere and Kolkata members, understanding the figures and readiness to notice problems are creating values to the customer.*

*Great knowledge, good communication and information sharing, hard work.*

*Actions: produce the numbers, document, present, solve problems, check logic, report and communicate, receive and give feedback.*

*The shared knowledge of updated needs of report information could be one of our team's value stream. The value is relevant information given on defined time. I think I am not always aware of the value stream.*

### Waste

Carefully conducted analysis of value stream should reveal the steps in process that are completed but either are not adding any value to the final product or are not contributing to the production process. This type of tasks and processes are identified as waste (Japanese term muda) and should be eliminated promptly from the process stream. The guiding principle is the customer aspect – added value to the customer.



What things you would suggest should be reviewed as waste in your process? Open field answer

*Waiting time, double work, reminding others to deliver for example information to you, correcting mistakes*

*Double work within X teams or X and Y teams*

*Same checks done by more than two times by different teams.*

### **Continuous improvement**

After having created the smooth process flow the process should continue to aim for perfection. Rapid removal of first type of waste will give quick and drastic improvements in the process (Japanese term kaikaku). However, the continuing aim for perfection demands that the process should be continuously revisited, reviewed and further on streamlined.

The process development is not finished after first process improvements but is continued with dedicated resources (staff, time, practises) for hitting the target level of yield (Six Sigma). This review and revisiting the flow is meant when Japanese term kaizen is used.

Open-ended questions

Do you think your team is ready for continuous improvement flow? What do you see as inspiration to this way of working? What would you consider as obstacles? Open field answer.

Answers

*I think we need to have continuous improvement to keep our processes updated with the latest knowledge, legislation, requirements from our stakeholders etc. Problem is how to find the time to brainstorm and also implement the good ideas. Also would be useful to have more knowledge or supporting tools for continuous improvement.*

*Improvements in processes (for example improving the information flow) would probably reduce overtime work and this could be seen as an inspiration.*

*I think our team is ready for continuous improvement. Inspiration would be that we constantly receive new tasks and we are expectations from customers are growing. Obstacle is that majority of our team members have started within last six months, so identifying improvement points may be difficult*

*Team is as ready as it wants to be. Inspiration would be time saved, getting better at your job, being able to contribute more, being recognized as valuable team member. Obstacles are for example poor communication, overstress, and excess work.*

*Yes and no, I think the team will be ready soon... some stabilization period is needed.*

*Obstacles, position changes at the team. No time to isolation from process for continuous improvement.*

### **Motivation and interest**

Motivation and interest – the last questions are mapping the interest in lean training and motivation in implementing the theories into practise. At this moment, can you see relation of Lean theories to your current work?

Please use scale 1-5;

1=I cannot see the connection, 2= I see some connection, 3= I cannot really say at this point, 4= I think there is possibilities to work on, 5= I can find few clear ideas to implement into my work

<b>Relation of Lean theories in my own work</b>	<b># of answers</b>	<b>% of total</b>
1 – I cannot see the connection	1	14 %
2 -I see some connection	2	29 %
3 – I cannot really sat at this point	2	29 %
4 - I think there is possibilities to work on	1	29 %
5- I can find few clear ideas to implement into my work	1	14 %
	7	100 %

Table 5. At this moment, can you see relation of Lean theories to your current work?

Do you think discussion of lean theory itself would benefit in developing the actual ways of working? Open field for answer.

*Yes. From the theory we can find the tools for the actual work. Could be but I think that for example some real life examples would probably also help in developing the actual ways of working. Discussion of the lean theory will most likely help to see the value streams and processes of our work from a different angle but the theory should also be implemented to actual work in order to benefit*

*I think that learning of lean theory would be beneficial.*

*It wouldn't do any harm. It's good to think about the responsibilities from a broader perspective as well.*

Are you interested in receiving more information and/or training in lean themes? Kindly describe what training (how, when, level) would be suitable for your needs?

*The training would be needed, I cannot define the need at that period. We need to have some period of stabilization.*

*Not at the moment.*

*Yes I would like to learn more. Because I know so little of lean theory, it's hard to say what kind of training would be good. First I'd like to understand basics and then perhaps hear examples of lean processes in service work*

*Once I will have more information of lean themes (main ideas, purposes, methods etc.) and get familiar with them, I think I would be interested in training to improve the current ways of working.*

*I am very interested in this topic and would like to get deep enough understanding on lean theory to be able to use that independently in my work.*

#### 4.2 Summary of the questionnaire

The team is evidencing clear interest in the lean concepts so the approach is quite positive. There is rather variation in the motivation related questions as it seems some are hesitant to focus on a new methodology – comments of ongoing changes and push for development.

The level of knowledge is modest so special clear and short introduction lecture to be planned by me to bring them into interested and co-operative mode. This team is challenged all the time with Lean trends from outsourced organisation and thus are eager to bring their understanding to the same level. This in my opinion contributes to also to the co-operation and speed of development.

In my presentation I should take the reservation into account and keep the theory part in understandable format with a lot of practical examples of team's current work to really tie the theory into their challenges. I will also use examples from my own life and working experience to present the topics more in light.

### 4.3 Group discussions of Lean methods

Action plan for the Group discussion

- Part of the team's Development day – full team present.
- Time spent 1-2 hours
- Discussions take place in smaller groups around certain themes, team presentations.
- Recap introduction to Lean trends
- Pull together the small groups work into group discussion

Agenda for discussion

- Lean theory and examples – introduction by myself – 30 minutes
- Comparison to Six Sigma theories
- Agile project management, scrum
- Lean Six Sigma and Financial Accounting
- Group work in small groups (3 members) – 20 minutes
- Team discussion of findings and brainstorming for Financial team – 50 minutes (Recorded as part of the research material)

#### 4.3.1 Theme 1 - Your business and the value stream

**Topic A - Discuss of your company – can you value is the actual manufacturing process lean or not?**

Remember the Business mind set – linkage to full end-to-end process

Summary of the discussion - Identifying lean characteristics from the manufacturing process

There are different manufacturing process in this team's business areas. One business area is viewed to be quite lean as the production is mainly based on customer orders creating the pull and there are small inventories. The second business area was deemed to be less lean as on production point of view there are full stocks and large reserved were kept, however the products are customer specific or at least designed by customer requirements – large retail networks.

From personnel point of view both processes are quite labour-intensive, still more wages than salaries paid. The second process in addition is quite work intensive process handmade. Another lean characteristics was considered to be ever ongoing cost efficiency improvement throughout the manufacturing process. There is data analysis made for energy consumption, material sourcing, cost drivers in general aiming for smaller and smaller overheads. However, this is more of the corporate strategy than really lean focus.

The team was feeling that lean adaptation would suite to the part of the processes very well – again, optimal result would need complete overhaul lead by higher in the management.

### **Topic B - Mapping value stream for this financial team**

Think of one part of the closing process: Can you identify part of the closing process that is lean? What are the root causes enabling the process flow?

Summary of the Value stream mapping discussion

There is common global closing schedule and also the common tool to monitor the financial closing steps. The closing tools requires some development but it is proceeding. The standard accruals is done by the outsourced team quite efficiently with minimum supervision.

Process development risk forgotten for Kolkata (one team) and the development focus is only in Tampere – not into interdependent work with Tampere and Kolkata. Processes so efficient when outsourced to Kolkata team they are now easily forgotten

What are the root causes enabling the process flow?

The legacy systems and their performance are enabling a good flow of information – no major issues in basic data.

#### 4.3.2 Theme 2 – Think about Financial closing process and the Waste

##### **Topic C – The Financial closing process**

Can you identify any developments you could think of in your team? What to start?

Summary points from team discussion

- Understanding of the interdependency of the tasks to create flow
- Better communication with the outsourced team in Kolkata during the financial closing
- Improving the flow of communication also from Tampere to Kolkata so both teams work in lean way
- Increasing knowledge about the tasks performed in the outsourced team
- Newer team members have been trained to only Tampere scope, so there is clear sense of uncertainty of full picture even if team in Tampere has the overall responsibility of final results (ie. supervising Kolkata)
- Still performing tasks during the closing that could be done already before monthly financial closing
- Legacy system accrual has to be received as quickly as possible (right after when the period is closed)
- Review and posting of purchase invoice accrual immediately after the AP ledger is closed, timing of this posting should be early to reserve time other potential investigations at closing

##### **Topic D - What is the waste you identify in your work?**

Supporting questions

What interrupts the process flow?

Are you working in a flow or do you need to backtrack the process?

Team Summary point's shortlist - Use kaizen thinking (continuous improvement) and provide ideas – what to change now?

- Waiting, double checking, corrections, instructing, guiding, and training others
- Not receiving the information interrupts the process flow
- Backtracking has been done but if it has to be done it should be in an efficient way
- General agreement that there a lot of waste during the financial closing in the process as is.
- Doing corrections profoundly, identifying the root cause and elimination of that
- Tampere team feels some vital pieces of practical information is now missing – causing prolonged time used when a correction is required and studies are made for it
- Suggesting quick-wins in common team understanding (kaizen)

- Chain of waiting time in process – our contact is waiting for information from somebody else
- Thinking upfront the next closing

#### 4.3.3 Theme 3 – Critique and Continuous improvement

##### **Topic E - What is the critique you would like to highlight in lean thinking in your process?**

Can you agree with the lean principles or would you like to challenge them – how? What are your concerns that might happen if you develop your process into lean processes?

- Lean thinking seems to be more suitable for manufacturing process
- Harder to fit into the financial services especially in the reporting due to high peak in monthly basis
- Many customers with different needs and scopes – how to see the real, standardised VOC
- In addition many stakeholders touching the same process outside this process team, many dependencies to other process steps.
- Just in Time thinking – the schedule must hold for all parties otherwise there is no time for corrections
- Streamlining is difficult because of different business needs
- Closing period is the bottleneck as there seems no way of avoiding the peak time.

##### **Topic F - Continuous improvement**

What steps to take to ensure the development starts and is maintained? Start the development by understanding what we do, what is our aim, what the gap is and what actions to take to close the goals.

Remembering the first steps giving the largest yields

- Teams feel they need the motivation for improvement through increasing common understanding what we do and the increasing the understanding of lean processes
- Remember to follow-up the actions
- If the improvement process stops there will not be improvement
- Data analysis - What we need to measure to measure also our achievement – e.g. Used time

## 5 RESULTS ANALYSIS AND EVALUATION

### 5.1 Quick wins and team decisions

Team acknowledged the existing gap in information between the tasks in Tampere and Kolkata, which is slowing the case investigations and general speed in growing the team member's skills. There is room for development for receiving the data in correct time, and this improvement would need cross-organisation co-operation.

My recommendation to them was to take one task area into the focus and short common discussion to go through the overall process flow, responsibilities in Kolkata and responsibilities in Tampere. This kaizen quick-win would stabilize the basis there the team I Tampere is working on. In advanced stages also team in Kolkata should be involved to create complete common view.

### 5.2 Change of mind set has started

The team is very receptive for the Lean methods. It seems the practical examples and opportunity to discuss their current status as a group through Lean thinking opened up the development opportunities for them. My observation is that the voice of the customer or what exactly is creating the value to the financial closing customer seemed to be harder to discuss and got quite limited attention. The customer approach is very often neglected in standardised service environment but definitely would be beneficial.

My recommendation is to keep the customer (business) approach in mind within the main tasks- Another discussion of the customer focus may be suitable topic in coming team development days. I think a scrutiny of all activities and asking the question if this activity really add value to the customer will reveal number of tasks that are done just to be sure, for additional controls etc. and can be planned more efficiently.

Keeping the change in attitudes and implemented the lean methods in small steps would require regular reminder and recap of the theories. This could be done by analysing one task area at the time as the team, or to have discussion of the steps how to create the pull and flow in the team tasks procedures. Handicapping feature is that there seems to be no room for major organizational lean steps now – even if there are several linking subprojects such as cost analysis etc.



### 5.3 Basis for training material

Based on active discussion and direct feedback for me, my training material was well-reserved. In the material I used for focused in quick short representations of each Lean idea – perhaps also contributing to a slightly shallow understanding in various parts such as customer focus.

In actual training material for the future planning I think there could be shorter and longer options or a way to expand one theory to longer description and documented samples in our organisation to keep it still practical. If we think of material to be used as independent study material – there should be larger sections of presenting wide variety of features in Lean management.

To ensure the material is easily used I think there should also be a recorded copy of the presentation annexed to the material. To listen to the presentation has ease of approach and can be embedded into orientation of the new joiners easily as self-study package. This ensure the same level of understanding is maintained also in the future.

## 6 DISCUSSION

My own perception of the content of this theses is that it will act as first contact to lean thinking for our team and in addition a roadmap to lay direction for new must be done type of developments in the teams. It will lay foundations for starting the lean review process that the team should follow up in coming years.

The presentation of the thesis itself is not the key point towards the organisation. It is the actual change in the mind set and creation of training or introduction material for the process team that yields the benefit. As the team has faced several upheavals and constant pressure to streamline the processes, there is nothing new in new streamlining efforts. However, my concern is somewhat battle weariness I have recognised through personal discussions with individual team members. I think change management and communication is the key to success also in this project.

Based on Womack's and Jones's (2003) examples, a company making lean leap may experience great turnarounds in production efficiency. In this particular case, there is constant direct need to bring down overtime house worked at the financial closing. This is a factor that pushes the team towards the change. However, underlying trends may also be reducing the work and therefore the number of jobs leading to clear reluctance to effective process improvement.

### **Known critique towards lean management methods**

It is very easy to overdo the methodology part as indeed a Black Belts, Master Black Belts and Champions are all expected to use the Lean language actively and ensure the methods are embedded into the organisation. Lean methods have been widely used in consultant world and therefore in my opinion it may be they have suffered a slight inflation in their deep meaning.

While discussing with Financial Reporting Process Lead about his perception of Lean he advised that he sees these themes as common sense that should be brought on to the team performance. At the same we should avoid the over branding the methodology to keep it motivating to individual team member. It is essential that every worker can see the real connection to daily work.

## 6.1 Roadmap planning for Financial Accounting team

Based on learning from theory and research I am suggesting following steps for this organization in start of the walk of the Lean path. I am highlighting that most likely as a support process role the organisation is bound to focus on the sub-optimization the lean steps at least in the beginning – but still a number of positive development steps can be achieved even with sub optimization endeavour.

### **Introduction to Lean - material improvements**

The Lean introduction material fitted for Financial Services should be reworked based in experiences from first workshop. I am planning on focusing on main themes and aiming to keep the information content compact and easily approachable but also listing references and other information sources to the material as additional reading for very interested parties. Format of the material would be PowerPoint presentation – but it should also be recorded as presentation for the team databases for easy and appealing independent studying.

### **Workshops for rest of the teams**

Rest of the teams that have not yet had the workshops should be schedules for own workshop to achieve the common understanding overall teams. The final results is to bring all related teams in same level of understanding so the following steps and be started from common platform.

### **Voice of the customer analysed**

For financial services the customer's value may be a bit vague and sometimes hard to see. The organisation has however invested already actions to give the customer opportunity to voice their opinions, for example through giving feedback via regular standard surveys. Standard survey however may not reveal the actual, real benefitting value to the customer.

What part of the tasks really adds value to the customer?

Which are the tasks that needs to be done even if the direct link to the customer's value is not seen (such as archiving, auditor data delivery etc.)

Which tasks are internal controls ensuring the basic process is working correctly and have they been planned efficiently?

### **Financial closing reviewed with Values stream mapping exercises**

Value stream mapping exercises involving experts with active knowledge of the task combined with ability of taking the helicopter view should be started very soon. I consider this part of the roadmap being the most challenging one. Similar mapping has been done before and with vast resources leading to only few implementations.

Ideally, the value stream mapping involves the entire path from start of the process to the end of process – in other words involving all steps also outside the financial accounting team. At the same time, there are several other initiatives taking place involving new financial technologies such as robotic automation. This can be seen as beneficial as a review must be done presently anyway to gain the understanding how the new available technology involving robotic automation into the closing work will be used – including bot aspects into same analysis as they are clearly interlinked.

### **Running kaizen events and implementation**

Based on value stream mapping we expect to find yet additional steps for immediate quick-wind. Even if the whole organization may not be involved into the financial services are most likely able to run series of kaizen events to improve the existing process steps with immediate results. Important part here is to recognise those steps that are shared over process areas and create genuine co-operation and

### **Gemba walking adjusted to the Financial Accounting team's routines**

Dedicated members of the team in form of team leaders and Lean coach to walk through the existing status quo regularly to see deviations to the recommended way of working and timing of the work. In the beginning, crosscheck of the related tools such as task list and working instructions quality would need to be reviewed in through lean glasses and recommendation for immediate corrections should be made.

I believe a daily walking is not perhaps the most efficient way, but after the month end closing a common feedback and preparation session would stand in as gemba walk to address the things to correct and plan the next steps – releasing time also for the implementation of the corrections. The part I recommend to add is the gemba walk from higher level of management, taking the walk and discussion with the team of tangible topics such as:

Which precise actions they have taken in this closing to remove waste from their unit's closing flow?

How has the process for implementing identified quick wins been recently?

What are the obstacles hindering the future improvements?

The continued interest evidenced from higher management boosts the attention and efforts given to the lean actions. The team gets opportunity to influence to the outcomes and present their successes, which also keeps a slight motivation bosting pressure on as they know there is a monitoring happening.

### **Focus on continuous improvement**

Continuous improvement focus and drive would ensure there is constant flow of improving the work. In team there is method for sharing best practises but this is not been too effective in recent years in the organisation. The drive for continuous improvement should be raised within the team, giving recognition and positive feedback of the reached achievements

### **Change management**

Once the change is started with previous roadmap actions there needs to be a way to ensure that there is a deeply driven, permanent change in the thinking of the work by all individual team members. The situation where the planned actions are just a theme for one year to be replaced by next popular target for attention in next year is very damaging for the ambition to keep the lean alive in the minds of the team players.

One part is to identify the natural change agents already in early stages of process changes. Naturally a team manager and team leader are driving forces. However, for maximum success, those team members that really adopt the thinking and develop a passionate approach to lean principles should be recognised.



Picture 5. Roadmap plan for Financial Accounting team

I am not worried of initial resistance for the changes in the team as the first workshop showed very positive positioning by all team member. The challenge lies in the future, with continued enforcing of the methods, ensuring also new team members are on boarded properly and the ambition and the drive from all teams are revisited and kept in focus with frequent short revisit to the theme through presentation and discussion.

If we manage to create correct understanding of the lean methods in the team, we can expect some quick wins and delighting success stories that enhance the motivation further. More important is to start the creation of correct mind set the keep the continuous improvement cycle turning.

## 7 CONTRIBUTION

As the team has faced several upheavals and constant pressure to streamline the processes, there is nothing new in new streamlining efforts. However, my concern is somewhat battle weariness I have recognised through personal discussion. I think change management and communication is the key to success also in this project.

The results I expect to get via the thesis is first of identify the level of motivation for Lean thinking. Secondly, to set up the right atmosphere and interest for more information of the methods. And thirdly, to think through a roadmap for taking the lean steps in the teams exceeding the borders.

My own perception of the content of this theses is that it will act as first contact to lean thinking for our team and in addition a roadmap to lay direction for new must be done type of developments in the teams. It will lay foundations for starting the lean review process that the team should follow up in coming years. The presentation of the thesis itself is not the key point towards the organisation. It is the actual change in the mind set and creation of training or introduction material for the process team that yields the benefit.

My own lean journey has taken over two years now along the preparation of this thesis. It has started with introducing myself to the theories, taking new angles through the lectures and presentations. I have been able to very quickly start to use these themes in my own work – guiding the processes as the thinking process has started in back of my mind. The rewarding part in the thinking is its very close and practical approaches and famous common sense that can be applied to many achievements, great and small.

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