

Lean Logistics Systems and Implementation

**International Logistics
M6X01294**



I declare that this assignment is all my own work and that I have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited

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Introduction

At a time of the globalization and the increased competition from the emerging countries, the companies must to adapt quickly and optimize their performance. In this context, lean management, approach to perform the business by cancelling worthless units appeared like an ideal solution. The lean method lean has several variants, definitions in function of the vision of the company. A common definition is extracted allowing to identify the principles for all. In this assessment we will identify the principles of the lean method. Reference is needed for the definition of lean. Also lean is not only a method. Lean is a philosophy, principles, approach and strategies.

Currently, if you visit a hospital anywhere in the developed world, it is susceptible to find a lean initiative. We have many companies that have started a Lean approach, however we find it difficult to put it into practice. In an investigation, 2007 Industry Week/Manufacturing Performance institute, 70% of the manufacturers said they uses Lean methods, but only 2% of them declare they had fully achieved their goal and 24% declare they had significant results.

Several persons think that lean method is not the best thing to improve company. We find two opinion against the lean (Hopp, 2018): at a more personal level, Mehri, who worked in a Toyota group company, found lean to create a 'culture of rules' that stifled creativity, neglected safety and created a poor quality of life for workers. Speaking from a decidedly political point of view, Post and Slaughter described lean as 'management by stress' designed to eliminate waste even when that 'waste includes most things that make life bearable like breaks, or a reasonable pace, or a set work schedule, or a decent pay check, or job security'. In this assessment we will try to understand why they think this and seek to understand better the issues of lean.

Lean management ask an integral participation of the company (employees, managers). Indeed, for example with a lack of senior management commitment, resistance to change, and excessive dependence on tools, without a deeper understanding of Lean thinking (Hopp, 2018), it is will be more difficult to achieved the goals of the company.

In this assessment we will explain in the first time the lean management and these principles. To illustrate the lean management, we will work with the case study ZIEGLER, transport and warehousing company in the world. We are going to work more on the Theix warehouse, in the Morbihan, French department.

Lean Management

What it is?

“Lean manufacturing is a continuous improvement program taken in small steps. It improves the process by eliminating waste, standardizing work, and creating flexible manufacturing. It is typically focused on the production process, working to evolve it, rather than just change it. Typical tools used to achieve this improvement include: line smoothing, the Five Ss (Sort, set in order, shine, standardize, sustain), cycle time reduction, and work area reconfiguration. The application of Toyota production system (TPS) or similar methodologies is also used.” (Wincel, 2003). We can use the tool Six sigma also to improve process of the company: “Six Sigma is a method that provides organizations tools to improve the capability of their business processes. This increase in performance and decrease in process variation helps lead to defect reduction and improvement in profits, employee morale, and quality of products or services.” (ASQ, n.d.)

How did it start?

The term lean became associated with a certain business capability – the ability to “do more with less” (Natalie J. Sayer, 2012). The word “lean” appeared in the Massachusetts region at the end of the 1980s at the (MIT) technical institute with doctor James P. Womack. By examining the international automotive industry, they have looked more at the behaviour of the Toyota business: the Toyota motor company. They realized that the performance of this company was due to a different system. Indeed, Toyota “needed less effort to design, make and service their products, required less investment to achieve a given level of production capacity, used fewer suppliers, needed less inventory at every step” (Natalie J. Sayer, 2012). These four examples permit to say that Toyota is a lean company.

The Five basic lean principles or 5 S

5S comes from the techniques of Total productive maintenance (TPM) and to Toyota production system (TPS). The concept is to organize the workplace and practices to be more efficient and logic possible. 5S is organized in five phases, every phase has a Japanese name which begins by the letter S. (Natalie J. Sayer, 2012)

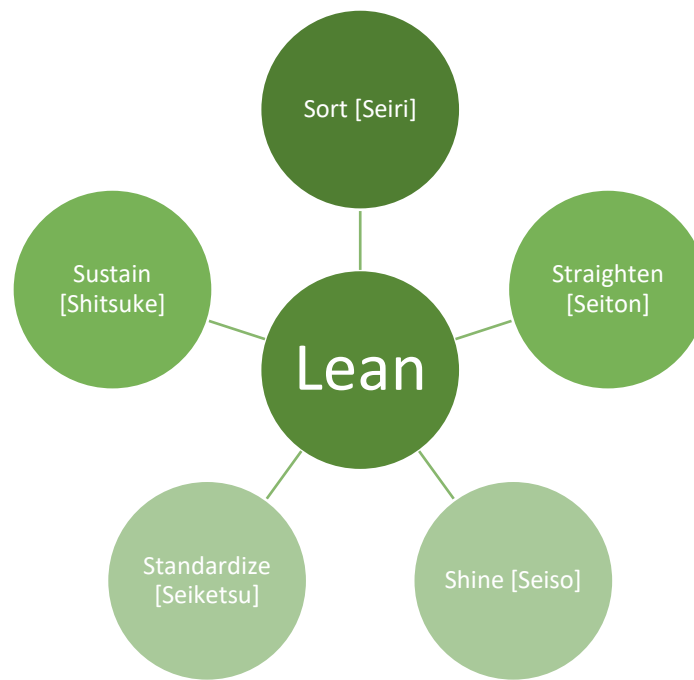


Figure 1: Made by Maine RIO - Representation of the Lean management with the 5 S [Author's Own]

Sort [Seiri]

Seiri it is the first phase of the 5S system. One of the most important phases because it allows to sort. The sort of the necessary things or not in the workplace. All the employees actively participate to permit the globalization of ideas and be the more efficient possible. The principal objective of this phase is to keep only things that are required. (Wincel, 2003)

Straighten [Seiton]

This second phase consist to dispose the necessities things kept during the sorting but with in an effective way. Like for the first phase, all the employees participate. The principal objective is to keeps things in order. (Wincel, 2003)

Shine [Seiso]

After sorting and order the necessities things in the workplace, the third phase consist to thoroughly clean the area, the tools, machines, equipment, flews in order to recover an almost “new” company. The sentence which can define this phase is: A clean work place enhances health and productivity. (Wincel, 2003)

Standardize [Seiketsu]

In this phase, it is time to standardize, explain and apply the new rules in the company. Like say Steve Jobs, “It is very hard to make objects for a category of people. Most of the time, people

don't know what they want until you show it to them.”. To be able to do the fifth phase, they must to learn how work the “new” company. But it is important to create accessible rules, so that they can last over time and motivate employees. “Define success with your own words, achieve it with your own rules, and build a life that you are proud to live.” (Anne Sweeney, co-PDG of Disney).

Sustain [Shitsuke]

The last phase of the 5S system is decidedly the most difficult. Indeed, after create and apply the rules, you have to make it a habit. Let this new functioning be the culture of the company. Like say Henry Ford, “Coming together is a beginning; staying together is progress; working together is a success”. Do not give up, it would be a failure. Thomas Edison think the same: “Our biggest weakness is to give up. The safest way to be successful is always to try just one more time.”. A control and a follow-up must be carried out to know if the rules are followed.

Ziegler – Theix [city] agency

[All the work in the case study come from the internship report of Marine RIO, realized last year -2019]

Ziegler company is present in the entire world, transport and warehousing company, the company she is knew how to specialized in a lot of areas: wine and spirits, chemicals, projects cargo, sport and leisure, fast moving consumer goods, aerospace, fairs and expos and world pack. In this case study we will work about the warehouse in Theix, in Bretagne (Region in France) specialized in messaging, warehousing and international transport. Since several years, she signed an open-ended contract with the biggest in the field of perfume. Indeed, the agency of Theix receives, cleans and sorts the trays of cream and perfume caps (Dior, Channel...). During this internship, the role was to reorganized and clean this service. Figure 2 presents the appearance of trays before the cleaning. Indeed, they are stacked on pallets, the cause of broken and dirty trays..... You should explain this figure in text.



Figure 2 : Trays of cream and perfume caps - internship report [Author's Own]

We will explain the cleaning process with 5Ss process.

To understand what the company do, here is a diagram about the way of the trays:



Figure 3: Process of the trays - [author's own]

The trays arrive dirty and in poor condition. The main purpose of this service is to sort and clean the trays so that they leave in the factory in good condition.

The next Figure 3 represents the organisation before the cleaning:

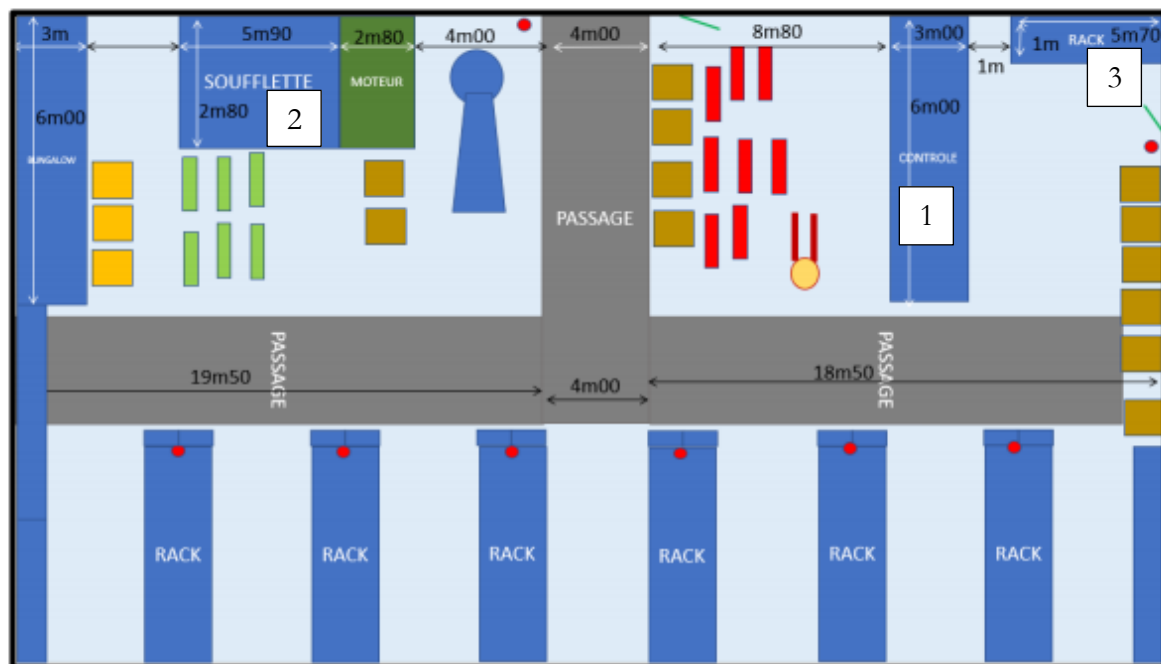


Figure 43: plan of the workplace - internship report

Legend:

1	: control tent		: pallet out of service
2	: cleaning tent		: pallet truck
3	: Rack		: sense of circuit
			: emergency exit
	: thoroughfare		: fire extinguishers
	: finished pallet (sort + control + clean)		: storage pallets
	: pallet controlled		
	: salty palette (not checked or cleaned)		

Sort [Seiri]

In this phase, the principal goal is to win space and eliminate useless units. We notice many unnecessary pallets (pallet out of the service) in the workplace. In more, tray remainders also take up a lot of space behind the control tent. In addition to that we can add a waste of time to the search for the reference. We can see it with the photo below:



Figure 54: tray remainders behind the control tent - internship report

Under the control tent, we notice little accessible space and a lot of waste on the side. The flow is restricted, indeed, the employees don't have a lot of place to circulate between the pallet and the work table.



Figure 65: Under the control tent - internship report

All the figures should be shortly explain in the text using their number to make easy to associate the figure with the explanations

Straighten [Seiton]

A place for everything and everything in its place. In order to answer about this sentence, we have recreated the workspace with a new plan of the workplace. We have several different issues to address than the workplace to have a clean and tidy workplace:

- 1- The next figure represents the work place in the control tent. We would like to change the direction of the tent to win space in the central driveway. From then on, the carriages will be able to move more freely. Indeed, the place was limited, the risk to have an accident

was more there. The work table would be placed lengthwise so that the employees each have space to work and facilitates flows inside the tent. The pallets of trays to be checked and the pallets of trays to be checked will be placed at the end of the tent, inside. The working space for the employees will be 1 meter 50 centimetres in length and 1 meter 20 centimetres in width.

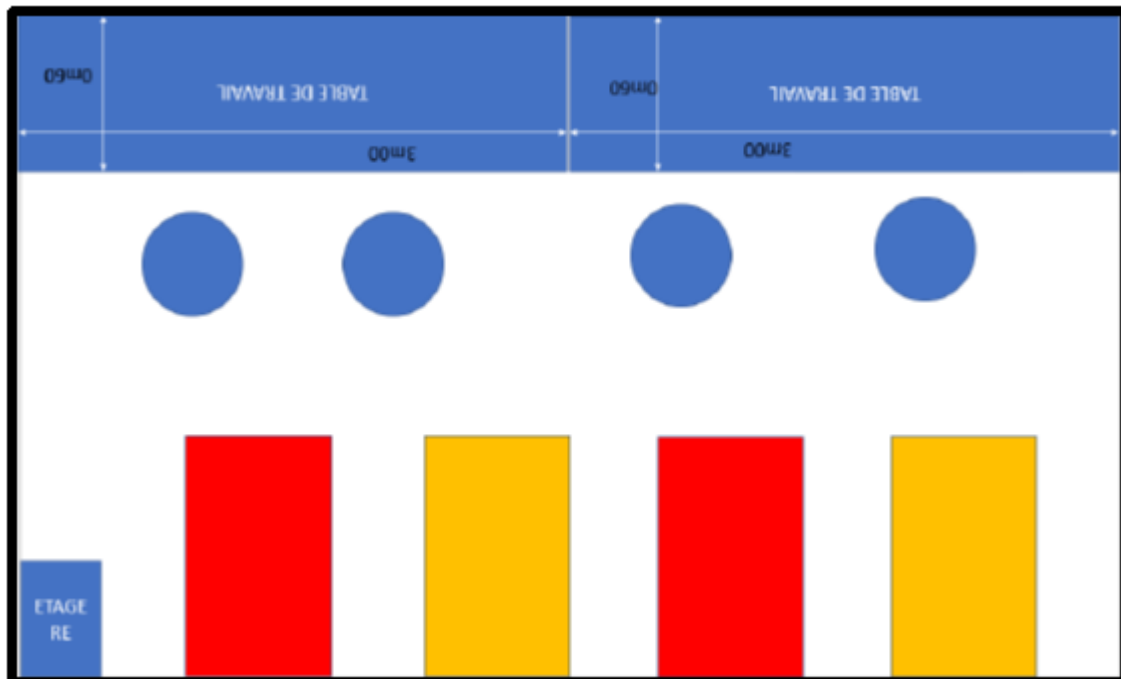


Figure 76: New plan of the control tent - realized by Marine RIO

- 2- The pallets placed all over the workplace will be stacked together in the same place to save on cleanliness and space. Indeed, all useless pallets will be stacked in a corner. This will permit to find them faster.
- 3- We would like to mount a rack to store the remainders of trays in order to save space, cleanliness and visibility. A table will be created to write all the references in the rack, so we will be where each reference is placed and we will can save time. A point which was not acquired before. The next figure represents the rack, it is representative diagram:

AR-5-001					
AR-4-001					
AR-3-001					
AR-2-001					
AR-1-001	AR-1-002	AR-1-003	AR-1-004	AR-1-005	AR-1-006

Figure 87: Representative diagram of the rack - Realized by Marine RIO

To understand more and illustrate the three points, we have created one new plan of the future workplace:

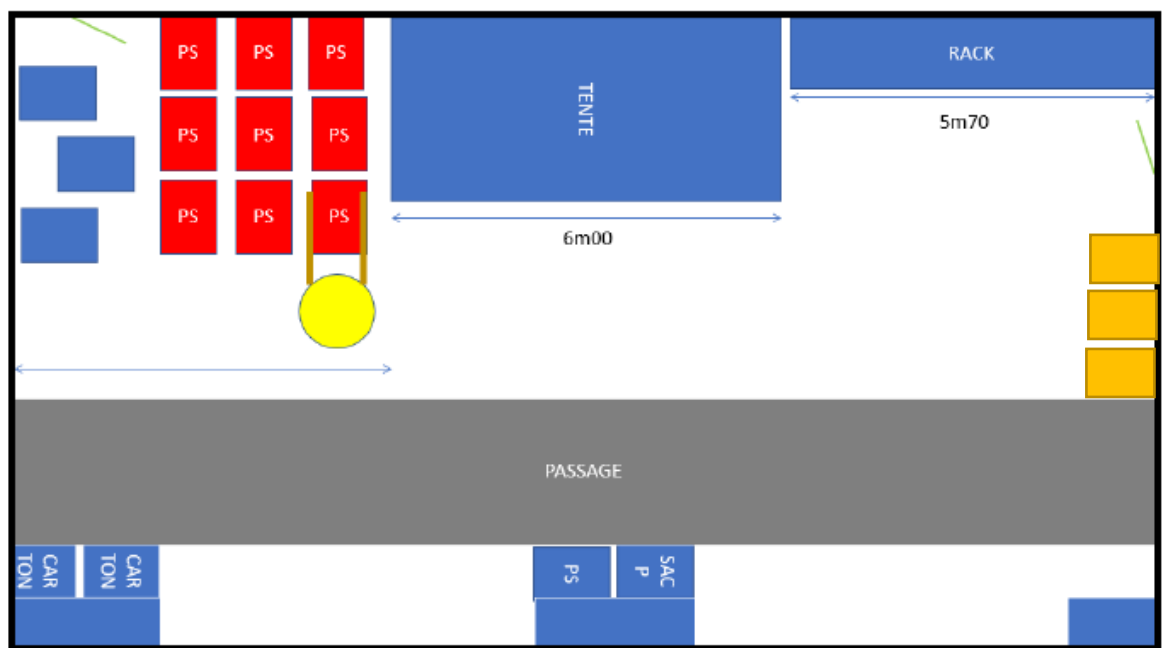


Figure 98: New workplace - Realized by Marine Rio

Legend:

 : useless pallets

 : salty pallets

These three plans represent what we want, the future company. The principal objectives of these plans are to clean and order the workplace

Shined [Seiso]

It is time to order and clean the workplace. After setting up the plan, we have a new operation, almost a new business.

- 1- Now that the rack is installed, the emergency door is free, the entire space occupied before is free too and in visibility. (Photo took by Marine RIO during the internship).



BEFORE



AFTER

- 2- The table was created and saves time on finding references and allows you to order the rack:

Standardize [Seiketsu]

Now that everything is in place, it has to become a habit. The references on the rack should be stored and not let loose at the bottom of the rack. We must write the references on the white board and/or erase if we use reference.

Take the habit to tidy pallet with others if we don't have the need and don't leave them scattered in the workplace.

Finally, empty the trash, clean the workplace once or more per week in order to begin the week in goods conditions. We must do these habits a company culture. Indeed, without this phase, the workplace will become again messy.

Sustain [Shitsuke]

A control and regular monitoring by the managers is necessary to know if everything is going well. The logistic manager checks the places once a week to know if the references are well made and if the places are clean. A rule about the cleanliness has been establish, every Friday, before the end of the day, all the employees clean the workplace and empty the bins. Thanks to this act, the agency of Theix begin her week in clean place.

Conclusion

Lean management have advantages, indeed, is a step on the long term, it is not carried out in the urgency of finding immediate profitability. The method even presupposes being able to sacrifice short-term profit (LAMOUR, n.d.). After making efforts on the long term, the necessity to have a stable organisation became a reality. Indeed, lean management is a way to identify the leaders of the company, to increase employee and supplier skills. A fight against waste is put in place. Indeed, if we have little waste in the business, this means that the management of stocks and flows are stable and efficient. Lean management is also a method that facilitates digitalization, in fact it can have more automation and therefore autonomy, this strengthens the company in the face of competitiveness and then a connection is established between the supplier and the customer. The strength in the Agency Ziegler in Theix is the link between each employee and also between employees and managers. During the cleaning and transformation, all the employees participated and express their opinions.

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