

Is Lean Management applicable to the hospital and for which results?

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ABSTRACT

lean management is a mode of organism inspired by Toyotism; His practice is evident throughout the world and is one of the most affected institutions, except that the latter is a different profession. There is no shared vision among the different actors on measuring the performance of the hospital. The activity of the hospital applies to unique "products": each patient, with its peculiar specificity. The relationship of the workers with the patient is radically different from the relationship of the worker with his product. That is why the practice of Lean has a certain specificity in the health field.

KEY WORDS: _Lean, management, Hospital, Health, Organization, Toyotism, Algeria.

Date of Submission: Date, 21 January 2019



Date of Accepted: 31. January 2019

I. INTRODUCTION

In recent years, we talk a lot about Lean management. Some managers have adopted Lean, others are hesitant. What is the main demand of the manager? To seek and reach a level of performance for his management, his department, his team, his production unit ... To succeed this challenge, he will have to seek efficiency, avoid repetition of error, satisfy his or her customers, to advance one's team, to render an account ... It may seem miraculous, but the practice of Lean management makes it possible to approach everything and treat it with logic and rationality.

The problem that arises is:

Is Lean Management applicable to the hospital?

The hypotheses that can be raised are as follows:

Lean Management is applicable to the hospital;

- a Lean approach leads to a progress of the hospital;
- Visible changes will appear through Lean at the Algerian hospital?

To approach this study, we try to treat the following axes:

- Definition of Lean Management;
- Lean management tools;
- the objectives of Lean management;
- Context and limits of Lean management;
- Is Lean Management applicable to the hospital and for which results?
- What does a Lean approach to the progress of the hospital bring?
- What will change the Lean at the Algerian hospital?
- And finally, some suggestions for successful Lean practice at the hospital and the Algerian hospital in particular.

II. DEFINITION OF LEAN MANAGEMENT:

Womack and Jones (1994) and Wilson (2010) described Lean as a way of eliminating productivity losses by all actors in the process. it is considered as a global performance model, ensuring continuous quality improvement. Lean management has its source in the reduction of losses generated within an organization, for a production and a return. more efficient²². Lean management is an interpretation of the "Toyota System". Historically, a group of researchers have been commissioned by a group of major US automobile manufacturers (General Motors, Ford, etc ...) to conduct a study on the Toyota system: how was this Japanese company to sell cars to the States? United States, and in so many? The result of this research was dubbed "Lean Production" and the researchers wrote a best seller in 1990 to share their discovery "The machine that changed the world". These researchers are

Dan Jones (English) and Jim Womack (American); they are still considered today as the founding fathers of Lean.

"Lean a Japanese culture";

Theoretical dimensions for conceptualizing processes are:

- creativity;
- employee participation;
- decentralization;
- solving problems by the process.

Lean management in its theoretical description seems to be effective. This method involves taking into account operating errors, to continuously improve the action of a given device. Based on quantifiable performance indicators, the employee is given a real autonomy. Allowing for example, to stop a process immediately when an error is detected to correct it on the spot. With a well-defined hierarchy and streamlined processes, costs can be optimized. Since the beginning, this strategy seduces but the results are mixed, industrially and humanly. Unlike the American culture, the postulate is based on demand, which allows to harmonize the device, to gain agility and flexibility. The values and norms that underlie Lean can create conflict with the culture that already exists within the organization. Such divergence delays adherence and performance. Taking into account the company culture was considered useful, to balance the implementation. The failed implementations are related to the lack of understanding of cultural dimensions aligned with Lean management. It is clear that there is a duality between the need for control and the need for innovation. It must go through a balanced and well-managed organizational culture³ to prevent one party from crushing the other.

The tools of Lean management: The tools come from the Japanese automobile industry, to which are added other methods such as⁴: The 3M (Muda, Mura, Muri) which define the hunt for the most frequent waste; Kanban: just-in-time management and constant adaptation to the customer; The 5S method (Seri, Seiton, Seiso, Seiketsu, Shitsuke [sort, store, clean, keep order and clean, formalize and involve]): optimizing spaces and information The five "why" method, which states that in the face of an organizational problem, the root of the evil is identified after asking five times "why"; Kai zen ("change" "good": daily improvement of processes): management by constraints, eliminating non-performing resources Benchmarking: comparison of unit of value between them; Principle of the Six Sigma method: everything that can be measured can be corrected Genchigenbutsu: go to the source, find the source of the problem and solve it to ensure the required quality. Challenge: Toyota's spirit is to challenge the status quo to find new ideas, even when everything is fine.

The objectives of Lean management: Attack the search for performance by reducing waste: It is a management approach to improve operational performance. According to Taiichi Ohno, considered as the founding father of Toyota's approach that

will become Lean management, the search for performance is reflected in the identification and reduction of waste: "To be more efficient, do not go faster, it avoids the waste of resources used ". Also, any approach aims at eliminating the wastes, which are of three kinds: what does not bring value (Muda), the use of excessive means (Muri) and the irregularities and the fluctuations (Mura). The easiest way is to tackle the Muda first, which are easily identifiable as soon as you look for them.

To improve gradually and continuously: It is well known: we do not know how to do it right the first time. That's why the Lean Manager practices continuous improvement (Kaizen). This consists in identifying as a team each operational problem and to treat it in depth, that is to say identifying and then treating its root causes. In this way, the problems really and definitely disappear. Exercise is doubly beneficial. On the one hand, quality improves as the origins of problems are addressed; On the other hand, teams learn to work together and gain a detailed knowledge of end-to-end business processes. The difficulty lies in maintaining such an approach over time. It is therefore necessary to set up processes for identifying problems and problem-solving rituals. To start this practice, a simple solution is to implement a weekly or monthly analysis, as a team, of the causes of the most frequent delays or defects, observed over the past period (examples: activity interrupted due to an urgency to process, data or necessary input materials not available at the scheduled date ...).

Satisfy customers: There is no point in improving, if not beneficial to the customer, which is the main concern of the Lean Manager. Anything that is not oriented towards value creation recognized by the customer should be considered unnecessary; this is wasteful. For those who practice Lean management, it is essential to identify and

understand what customers like, in order to specify the value of the product or service. For example, when implementing visual management, one or more panels are dedicated to the "voice of the customer": who is he? What does he want? Is he satisfied or dissatisfied? ; what are its priorities? ...

Develop the team's potential :Lean Manager understands that its employees should not be seen as mere process executors, but as the drivers and guarantors of performance. This is the reason why he involves his team in improving and re-designing their work methods. Constantly the manager must position himself as a facilitator, to provide teams with everything they need to achieve and improve, in particular a complete vision of the process in which they operate. It is he who must organize and ritualize situations of exchange, taking a step back, collective analysis. It is he who must promote the appropriation of the operating modes and their evolution by the operational actors. It is he who must promote the acquisition of experience and expertise of each collaborator, develop his ability to work in a team, in an end-to-end logic, that is to say by integrating the functions upstream and downstream from its scope of intervention. For example, a Lean Manager always wonders about his own business by asking himself two key questions: Are employees motivated? are they engaged?

Make sense, measure and communicate progress: We only improve what we measure. When we practice Lean management, we always try to rely on concrete facts, figures. Any action of progress is therefore accompanied by a measurement campaign. You have to check that the team is progressing. To do this, the indicators are defined and displayed in complete transparency. The results are shared and commented on as a team. The actions taken make sense through the evolution of the indicators. If the indicator improves, the team progresses and it is very motivating. If the indicator stagnates or shows no sign of progress, this deserves a thorough analysis. The team must understand why the actions do not lead to the expected result. Such a situation is not experienced as a failure but rather as a learning opportunity. The initial analysis must be reviewed and the hypotheses amended, in order to test another progress track. And so on. To start this logic of measuring progress, it is often easy to measure the% of achievements completed on time (with a satisfactory level of quality). Lean management is learned by doing. We therefore invite all the curious managers who are still hesitant to practice a test and to verify for themselves the benefits of this approach which is an effective and humane way of management. With our experience, we always recommend first to test the practice of visual management, which allows very quickly to understand what is really Lean management and measure all the benefits.

Context and limits of Lean management⁶:

Contexts: Reducing costs and increasing flexibility is presented as a competitive advantage, creating superior performance. Organizational culture influences the success of implementing and maintaining lean processes. This is a key success factor because culture determines the rejection or acceptance of a process or idea. The methods and the history of the company are the basis of the organizational culture. If socialization is successful, it creates a strong organizational commitment. Poorly socialized members may remain "outsiders" in terms of group or organizational social circle. 2

The limits⁷: The main limits of Lean bring out three main demands (Benjamin Farcy, 2018)

1. A correspondence between Lean and improvement of the work, aim at the proper direction the accompaniment of its implementation. They manifest themselves through the appeal of Lean for a certain ergonomics.
2. To know how to modify what has been put in place, and to get rid of a too strong influence of the doctrine. These requests reflect, this time, a difference between the Lean approach and the need to regain an arbitration latitude vis-à-vis these approaches.
3. Finally, a third level of demand, emanating in particular from the health, safety and working conditions committees (CHSCT), concerns the visibility of the worsening of working conditions - particularly in terms of densification - and health effects.

Thus, if this method is effective in restructuring an organization; Lean management has significant human limitations. These limits have an impact on productivity by reducing the commitment and cooperation of employees. These are the two pillars of productivity with leadership, so they must be taken into account. Moreover, relying solely on quantifiable performance indicators, does not allow focusing on the intangible aspect of productivity. This is essential in setting up the company's value chain. Knowledge of unwanted effects of Lean on health is not really a discovery. Just in time, one of the pillars of Lean manufacturing, was associated

in the early 1990s with the progression of Musculoskeletal Disorders (epidemiological survey on TMS and Labor).

The hospital and the application of Lean management: Lean management, a mode of organization inspired by Japanese Toyotism in the 1950s, is attracting more and more hospitals. Its goal: "Generate maximum value added at the lowest cost and the fastest, by using the right resources needed to provide customers with what makes value for them", according to Christian Hohmann, management expert. Translated into hospital language, the method aims to "put patient expectations at the center of the improvement process and create better working conditions," says Capgemini. In short, better efficiency (increased time in contact with patients, reduction of unnecessary tasks ...), with the key to cost savings. (Amandine Cailhol 2015)

III. WHAT DOES A LEAN APPROACH TO THE HOSPITAL'S? PROGRESS APPROACH?

The Lean approach gives back; -In the first place, the expectations of the patient at the center of the improvement process of the hospital: Get an appointment quickly, understand the consequences of his treatment, know when his output will take place, be able to choose his meals etc ... are more unmet constraints but drivers of change in the organization of the hospital. –

Second, it allows those who are responsible to meet the expectations of patients to do it in the best conditions by: Systematically tracking all non-value-added tasks from the customer's point of view. Systematically reacting to any drift in quality: zero defects accepted. Constantly repeating this search for perfection. This process of improving the quality perceived by the patient is reflected in an improvement in the efficiency of the hospital by contributing, for example, to increasing the time spent in contact with patients, reducing waiting times, unnecessary tasks, etc. ... Finally, a Lean approach relies on simple, practical and easily appropriated methodological tools within the hospital by the different professions, which is thus a guarantee of the sustainability of the process undertaken beyond the intervention of the team. initial. The professions are more watertight in their evolutions and the division of tasks. These differences can also be assets for a Lean approach if for example: It applies to make the choice of quality criteria for the patient a factor to mobilize all the actors in the hospital in the process of progress. The governance of the project reflects the diversity of powers and trades in redesigning processes.

- The key success factors of a Lean approach to the hospital:
- Install at launch a "win-win" approach at the three levels of the Patient, those who care for him, and those who finance the hospital.
- Focus on the processes that will be the most immediately producing quality gains for patients: access to the hospital care supply, articulation of the clinical services of the blocks and resuscitation, organization of the cycles of work, etc.
- Anticipate and organize from the start the faith process

It could in the short term influence the new version of the "Flash Diagnosis" by introducing patient-quality indicators such as: the admission time to undergo an operation, the time of care in emergencies, or the number of days of waiting between the planned output and the actual output etc. Perhaps this approach is finally the way to reconcile in the hospital the carriers of the quality approaches with the concerned actors of improvement of the efficiency? Injecting kaizen (continuous improvement), hunting Muda (wastefulness) and mura (irregularities) to save Algerian hospitals? In the United States, Canada or Northern Europe, the method is emulated. Example in Quebec, where the Ministry of Health is committed to supporting a global approach to implementing Lean, with the help of financial aid. Or in Sweden, in a Stockholm emergency service whose Lean approach - standardization of work, interdependence and employee involvement, fluidification of work processes - led, according to a study, to a reduction in waiting times for patients and an improvement in the allocation of human resources. But Algeria, it remains shy. Here, the phenomenon is still experimental, limited to certain services. But there is renewed interest in the general context of seeking savings. On paper, the idea is attractive for the structures confronted with the budgetary rigor. But there is a lot of reluctance on the ground. The constraints that can be drawn from it are:

- It can be backed by good intentions, but under the guise of looking for more quality and safety, there is a risk of increasing the constraints and the workload of the employees, and therefore, the risks for the patients.

- It is feared that the rationalization and standardization of roles erase the specializations acquired by experience.
- The cost reduction must be the consequence of the Lean and not the objective, (analysis Richard Kaminski, director of the Lean Institute France).
- many companies among them hospitals such as the Algerian hospital only sting the tools of cost reduction, without changing their system as a whole. They are hunting waste, but forget that the Japanese also advocated working on employee overload and the variability of activity.

IV. CONCLUSION:

to achieve Lean management in the Algerian hospital it is necessary to take into consideration: The prospective pole of Algerian health training: Three axes of work for three types of knowledge: Know for:

- influence
- Know to perform
- build the future
- Why such work?

To: - structure the reflection,

- to situate the country in relation to the best,
- Because international comparisons are not fine enough,
- Because there is almost no literature in Algeria, the

See the high-performance health systems:

Such as: International Health care; Kaiser performance ect

Have a working method:

Analysis of ten sources more than 30 case studies,
Identification of common characteristics;
Additional documentation on some systems and features;

And harmonization; See The 7 main features:

- the systemic vision
- The leadership
- Strengthening of the first line-
- continuous improvement of quality
- Successful information systems
- Organizational culture
- Integration of the patient.

Have the vision:

best care;
better health ;
best price
practice Integration vs. coordination:

"Integration is the process of creating and sustaining a common structure among independent stakeholders over time to coordinate their independence so that they can work together on a common project." Contandriopoulos et al .2004free translation

Review: -The Leadership (1):

- Presence of a visionary leader;
- Leadership distributed and serving leadership;
- Capacity to reconcile administrative and clinical leadership.
- And leadership (2):
- Financial motivations are not central;
- Improving the quality of practices and the service to the patient are the key;

- Thus, the establishment of management duos:
- Quality as the driving force of the organization, although The quality mentioned is everyone's responsibility and it works collectively.
- The six dimensions of quality:
- Patient safely

Patient centeredness

timeliness

Efficiency

Equity-

Without forgetting to master Clinical microsystems:

Take into consideration Central Initiatives

That is to say, to be interested in: All the people who touch the patient:

Care team

Organizations

Environment

Adopt High-performance information systems:

From where the five functions of the information system are summarized in:

For the integration of the patient;

To standardize;

it requires rational management of the population:

Based on a forecast through the needs of the population

And an explicit orientation towards the patient.

and according to Frédéric SPINHIRNY Director of Human Resources 2018

another vision of lean management can be taken into consideration, summarizing as follows:

- Lean management: the ambivalence of the technique
- Management, political philosophy or personal ethics?
- De-prioritize: move from "command-control" to "listen-accompany-facilitate"
- Subsidiarity: place the means on the unit closest to those directly affected by an action
- Coefficiency: making efficiency throughout the decision chain
- Consistency: apply a principle of non-contradiction
- Legitimacy by the fact: to move from theoretical discourse to practice
- Cooperation: indirect and direct redistribution

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