

The Covid-19 Crisis: An Opportunity to Innovate and Improve Public Services Using Lean Tools

Ismail Ait Abdelmalek¹, Souad Houfaïdi²

¹(Doctorant au Laboratoire de Mécanique, Productique et Génie Industriel (LMPGI), CED Sciences de l'ingénieur, Ecole Nationale Supérieure d'Electricité et de Mécanique (ENSEM), Hassan II University of Casablanca, Casablanca, Maroc)

²(Professeur au département génie électrique, Laboratoire de Mécanique, Productique et Génie Industriel (LMPGI), Ecole Supérieure de Technologie (ESTC), Hassan II University of Casablanca, Casablanca, Maroc)

ABSTRACT

The state of emergency, provoked by the coronavirus pandemic (COVID-19), comes to hamper the efforts of the authorities trying to change the structure, the organization and the culture of public services.

The impact of the crisis will not be known until the next few months. Thus, many preventive measures are taken to manage this situation. The primary emphasis is on technological development and improving the stability of performance to accelerate access to vital systems and resources.

The goal is to act faster, save resources and satisfy users; it's becoming agile. These objectives coincide with those sought by Lean management. Indeed, Lean's goals are continuous improvement and elimination of waste, using a variety of learning tools that allow employees to collaborate and improve as they go.

This paper aims to show that the emergency is an opportunity for innovation and reorganization for public services, that find themselves in a restrictive situation, thanks to the tools of Lean management.

KEY WORDS: Crisis, public services, innovation, Lean, urgency.

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I. INTRODUCTION

Governments have been working for several years to transform public services. In fact, citizens ask to be treated like customers of a private company, in particular by creating favorable conditions of reception and adequate quality of service. In the critical context of the coronavirus pandemic (COVID-19), the service continuity imperative is shaking up public management and transforming decision-making procedures.

The situation obligates us to examine some complexities or heaviness which we have become got used to and which are no longer tolerable in times of crisis. These complexities and heaviness generate wastes, which must be taken into account in such circumstances.

The crisis places flow management at the center of the debate: Flows must be described by showing the links and interfaces with the actors in the process.

Lean through its insistence on flow, speed of reaction, agility of processes, elimination of waste and ultimately people's intelligence, makes it possible to imagine a strategy that is both resilient and effective for managing the current crisis period. It is based on:

- People development to enable them to solve everyday problems.
- The animation of coordination structures so that people help each other, identify where it cracks and tackle it and encourage creative initiatives.

Indeed, Lean is a method to lead change with intelligence and without drama, it uses a variety of tools which rests on the capacity of men, teamwork and their know-how and reflects the desire to reduce lead times by increasing flexibility and responsiveness. This flexibility and responsiveness are of great importance, especially in times of crisis when expenses are significantly reduced.

In a context of crisis, the urgency constrained us to prioritize our choices -thanks to the analysis of data which allows us to define actions in the short, medium and long term- in order to meet the needs of the client. In his Lean model for organizational change, Kotter emphasizes the importance of a sense of urgency to obtain the necessary cooperation [1]. Indeed, people always find a thousand ingenious ways not to cooperate in a process they deem unnecessary or inappropriate.

Liker argues that a "crisis" always requires sustained efforts to maintain the same level of performance [2]. Employees, generally, take part in this effort to keep their jobs.

The gravity of a situation, real or provoked, can thus be a factor to initiate a transformation which, in other circumstances, would encounter high resistance. It is therefore legitimate to take advantage of a crisis or create a sense of urgency to maintain a long-term vision, because with a short-term vision and the lack of determination to change, the same problems, or other more serious, can reappear once the crisis is over.

In particular, the current crisis allows to move forward, and even to question the functioning of public services, since it fosters the emergence of new ideas that can surely promote innovation. Indeed, if innovation is a real way of development, it becomes even more true in times of crisis. It is absolutely an opportunity to mobilize all the resources available to face a major problem and continue to grow, because if there is ever a moment to learn an alternative approach to do things otherwise, it is during a crisis. Don't we say that "necessity is the mother of innovation."

This paper aims to show how Lean through these principles and tools allows to overcome the current crisis and to help public organizations to come out with less damage.

II. DEFINITION OF CRISIS

Etymologically, the word crisis means a decision or ability to decide or to distinguish a decision between potential choices. So, the term crisis implies decision-making, and therefore underlying the idea of implementation of an action [3].

A situation is qualified as a crisis if it presents characteristics deemed abnormal over a given period and if, over this period, existing methods and tools prove to insufficient [4].

According to Darsa "A crisis is an atypical situation which can compromise the sustainability of the organization in the long term. It requires the installation of specific human, material and financial means intended to control its direct or indirect effects" [5].

Generally, the crisis is a situation of anomaly due to a change which occurs suddenly and which causes a destabilization of an organization. This requires special management. In some cases, this can be beneficial and cause significant changes.

There are several types of crisis:

- Financial crisis: It can lead to a drop in turnover, an increase in expenses, a decrease in net profit, an increase in the number of unpaid invoices ... and place the company in a situation of financial imbalance.
- Social crisis: Due to structural and environmental upheavals, resistance to change by employees evoke a risk to the social climate of the company and threatens its activity.
- The health crisis: It is a threat to the health of a population. It can be a pandemic (because of pathogens like COVID19), or a drug, food or a natural crisis (heatwave, tsunami, etc.).
- Global crisis: Arises from all the threats in this situation, the question of the sustainability of the company is at the heart of all questions.

Whatever its type, the crisis presents many challenges and therefore many threats.

III. INNOVATION AND CRISIS

The crisis is an opportunity to develop new strategic tools and improve existing ones. It represents an occasion to innovate by invoking collective intelligence which suggest taking into account everyone's ideas to encourage reflection and generate structured and secure decision-making.

In this context, teams more than ever need to contribute and understand the frame and the sense given to each activity undertaken.

Each manager must rely on effective communication and large-scale sharing of information around the situation and the imperatives that condition the prioritization and understanding each decision. Anticipation remains the key to great success, it helps to maintain a balance between managing emergencies and developing a post-crisis perspective.

There is a great temptation to tap into toolboxes when an emergency occurs or when performance gains need to be made. This so-called "firefighter" culture, which consists of proposing a solution and asking for its immediate implementation to solve a problem identified, is positive in the short term because it responds to an urgent need. However, in the long-term, most problems emerge because their root causes have not been properly identified and treated. Indeed, the desire to maintain the relative comfort of an organization and known operating modes is an obstacle to change. This brake is lifted in the current circumstances, which require transforming and without delay. Thus, public services are beginning to adopt modern management techniques.

A plethora of management tools, techniques and theories have made travel, sometimes delicate, from the private sector to the public sector. Lean remains one of the fascinating tools from the industrial field that has sparked a lot of interest from public services in recent years. It contributes on the renovation of governance of public services, taking into account the improvements of these services, in particular:

-Switch from a more authoritarian administration to a more welcoming, more open and more civic administration.

- Revise the administrative organization towards more flexibility and productivity.
- Reform in the sense of adapting public action to the national and international environment undergoing profound change.

IV. LEAN MANAGEMENT VS RIGID OR HEAVY MANAGEMENT

It has been shown that the failure of most companies and institutions is because of the so-called rigid management they adopt. Rigid management is flaccid management whose roots have reached the bureaucracy which has become the essence of traditional administrative management. This type of management adheres to traditional methods which no longer have their place in the world of technology, information and globalization, it is finally the symbol of exclusion, waste, absence of concepts of added value.

On the other hand, successful companies have adopted agile or Lean management, which is characterized by a quick response and an easy readjustment of working methods to offer the best services to users with a total elimination, as much as possible, of activities that do not add any value. This type of management focuses on values, flow, perfection and teamwork; it reflects the organization's ability to achieve administrative performance.

The idea of Lean management is based on institutional change, which includes many practices and tools such as:

- Improvement of the working environment;
- Encourage teamwork;
- Optimization and problem solving;
- Use of visual management techniques;
- Investment in knowledge;
- Maximization of the concept of added value by simplifying work practices and excluding any administrative operation that has no added value for the work or the user.

To keep pace with rapid developments and changes in the world and to achieve the objectives of growth and competition, public services must get rid of rigid management with its bureaucratic problems and adopt the Lean management with modern concepts that allow an active contribution to sustainable and comprehensive development.

Furthermore, new information and communication technologies (NTIC) such as the use of big data and artificial intelligence are necessary to provide effective responses to problems encountered in various fields including public services. In addition, they are the only way that allows families, health workers, public authorities, educational establishments and businesses to stay connected, especially during this period of crisis which requires distancing and health confinement.

Thus, new modes of decision centered on the NTIC appear, the relation of the public institutions to the users begins to recover, and the future of public action is drawing thanks to the many spontaneous innovations and institutional changes brought by a crisis as brutal as expected.

V. OUT OF THE CRISIS

Most countries are trying to return to ordinary life after confining their populations to contain the COVID-19 pandemic. But the greatest fear expressed by many institutions is that they do not yet have enough precise data to make perspicuous decisions. Governments wonder every day, how long the crisis can hold, what will happen after the crisis, and how long they can afford to operate as they do now.

Some said they would strengthen internal processes over the next six months to include scenario planning / simulation and forecast losses in their budgets. Others, plan to focus on citizens and their well-being by creating a helpline that strengthens their engagement. And many see the current circumstance as an opportunity to question accepted practices, explore other approaches and use other partnerships and working methods.

In reality, returning to this "afterlife" implies accepting recent rules, new behaviors and rethinking a large part of daily life, especially at work. Social distancing, wearing face masks and frequent hand cleaning are the basis, but other rules and behaviors need to be reinforced in order to protect against another uncontrolled outbreak of the pandemic.

A panoply of Lean practices and tools, acting like so many micro-solutions which, put together, come to instrument the outing of the crisis and reduce its intensity:

i) The 5S taught or recalled, in exotic Japanese words, the benefits of sorting and storage, order and arrangement, cleaning, standardization and continuous improvement.

The first step in the 5S series is Sorting the materials, keeping only the essentials necessary to execute the tasks. This S requires moving to the workplace to determine what is vital and what is not.

The second S: Order and arrangement. When the necessary objects, tools or files are arranged so that everyone can see them from a distance, this saves unnecessary displacements and motions.

The cleaning is the third S. This S, not always the most popular with staff, can gain popularity now because it is about preventing infections, protecting themselves and others, more than cleaning up. Effective cleaning and disinfection require order work environments, free of all unnecessary elements to facilitate and ensure adequate disinfection.

Standardize, the fourth S is hard to implement. The new behavioral “norm” consists of staying at a safe distance from others, sitting at a distance from colleagues, wearing masks and washing hands frequently.

The final S is that of monitoring and continuous improvement, which means ensuring that the rules continue to be applied and that the system improves.

ii) Kaizen: 5S are often included in the Kaizen business management system as a set of principles. In Japanese, Kaizen means “continuous improvement”. It is a philosophy that focuses on both the process and the results.

According to Masaaki Imai, Kaizen is a generic concept [6]. It is a process that, when done right, humanizes the workplace, eliminates unnecessary work (mental and physical), teaches how to do fast using scientific methods.

Kaizen is a philosophy of progressive continuous improvement with the participation of everyone, it is often presented in the form of guidelines:

1. Throw away conventional ideas.
2. Think about how to do it, not why it can't be done.
3. Do not make excuses. Start by questioning current practices.

Kaizen's strategy implies that everyone in an organization works together to make improvements without ample capital investments. And this, as Imai says, “can only happen if you know every inch of your Gemba (workplace)”.[6]

Kaizen does not see problems as negative but sees them as positive opportunities for improvement [7]. To implement the change, Kaizen detects, reports and resolves problems. This program encourages rewarding employees who report inefficiencies and other difficulties.

This philosophy underlines the great importance of the work environment as an authentic place of improvement and source of information. Kaizen focuses on communication, collaboration and employee participation [8].

iii) Teamwork: Collaboration and teamwork are imperative to ensure a successful farewell from the crisis. Indeed, during the crisis, everyone needs the help of others even for daily tasks. In particular, public services are faced with problems which they have never seen before and, therefore, can't handle the new situation only by himself with the same methods and means which they use in the ordinary period. They, therefore, need the contribution of employees, citizens, civil society, the private sector and all of their partners.

Governments have recognized the constructive power of collective action. Also, political adversaries have forged unprecedented cooperative relationships at different levels, and people and institutions have become more and more united.

Teamwork means that people collaborate, performing constructive acts and using their abilities. The team can be the essence of success or the principal cause of failure, so a successful organization needs a consistent team spirit to achieve the set goals. Creating a team spirit requires dedication and continuous communication, motivation, effective coordination and individual skills are also crucial.

In addition, feedback should be an integral part of teamwork. Rather than waiting for the problems to become unmanageable, the team should ask themselves regularly: How do we behave as a team? What works well, and what is blocking? Where have we missed the expectations of others?...

This is why the Lean culture is based on flexibility and teamwork. So, when something does not work, changes must be made and all workers must understand why the change is necessary and adapt to it immediately. Therefore, Lean considers employee involvement as the key to successful management since the operational efficiency and profitability of the company depend considerably on human resources.

The Lean system enables close relationships between employees by creating an environment conducive to improvement, empowerment and inspiration to improve processes [9].

This culture of teamwork is important during a crisis, where working together is not only an excellent idea but a necessity. It is firstly question of listening to everyone in the team and knowing his point of view.

It is essential at the end of the crisis to provide feedback on the past situation. Feedback aims at reducing vulnerability and improving the resilience of companies. It will thus, make it possible to control the gaps between the established processes and the effective management of the crisis.

VI. EXAMPLES OF CRISIS[10]:

i) Natural crisis (France, 1999):

In 1998, the National Office of Forests must adopt a new strategic line: on the one hand, to comply with the objectives of sustainable forest management, and on the other hand to gain in productivity. A strategic plan was adopted but did not receive support from staff. The storm of December 1999 will accelerate the

process by upsetting the economic model of the office: The operating surplus from the State domain is no longer able to compensate the operational losses of the local communities.

The way out of the crisis: The definition of objectives is realistic, negotiated and managed as an educational tool to understand the new business model. The decentralization of the operation makes it possible to introduce the concept of economic efficiency, and the contracting makes it possible to learn by doing.

Lessons Learned: Without the storm, it had to follow a progressive development plan for process re-engineering. It would have been less efficient, less radical and slower. The combination of the crisis and the contractual logic made it possible to: maintain the balance of the financial conditions of the services, set up an analytical accounting and the communities were ultimately very favorable to the reform. Internally, significant investments in information systems have enabled the implementation of management control and knowledge of the cost of management acts, favoring the development of a managerial culture. The change was managed thanks to the on-site mobilization of personnel to fight the damage from the storm. The organization could thus move from a resistant system to a resilient system, according to new rules constructed by practice.

ii) Provoked crisis (New York 1994):

The reform of the New York police offers an example of a radical change in the conception of organizational transformation. The success of this reform rests on a managerial revolution within the police service (NYPD), led by a visionary leaderfan of the re-engineering method, whose adopted an original strategic approach: a strong strategic direction from the top accompanied by a strong decentralization of the initiative. The new mission being: "Reduce crime, fear and disorder", by organizing an overhaul of the entire department, the re-engineering of the NYPD and the development of strategic management using the tool "CompStats"; (Compare statistics: tool that allows a real-time statistical counting).

CompStats has become a management tool, it will also become a communication tool, via the NYPD website. Progressively, it is becoming a performance management tool: seven to ten meetings per year make it possible to supplement quantitative data with qualitative data and to compare strategies with the results obtained.

In summary, the reform of the NYPD comprised implementing the following management principles:

- The manager's strategic leadership;
- Mobilization of all staff;
- Decentralization of operational responsibilities;
- Using information systems to develop strategic management;
- An active performance communication policy.

Lessons learned: The police had changed profoundly both from an organizational and professional culture of agents. Recruitment conditions had become more stringent, consistent training, effective methods of action, reduced paperwork.

These case studies have only an analytical scope. They show the possibility of a radical transformation of public organizations under the effect of a crisis.

The crisis, whose origin can be very diverse, must be managed in such a way as to make it a dynamic of organizational transformation. In both examples, integrating information technology in offices plays a centric role in organizational innovation and contributes to creating value.

VII. DISCUSSION:

It is interesting to note that the governments consider that one of their duties is to provide a channel of precise information to the citizens. They see themselves as responsible companies that can collaborate and work with other sectors such as civil society and private sector companies.

The transformation noted during the crisis, because of coronavirus pandemic, shows through actions, the capacity of public organizations to innovate, in such circumstances, to improve services and to propose alternative solutions, although often thought from above.

The crisis can be very useful in capturing people's attention and increasing emergency levels. In fact, it is very difficult to work in a burning building. So, in a fast-changing world, you don't have to wait for the fire to react. A long-term vision, in particular through a training plan, is an element that will allow concentrating efforts in times of disruption.

In times of crisis, governments must preserve their values and societal roles and continue to serve citizens and communities. Indeed, the current context offers another opportunity to facilitate the work of organizations and their customers, in particular by adopting Lean management tools which have demonstrated their ability to manage such a situation [11].

At the end of this crisis, governments must also be able to foster a welfare economy that puts people at the center of considerations, by combining their efforts with those of private companies and civil society, and to generate preferred solutions from the diversity of existing ideological and political differences.

Internally, public services must focus on the well-being and support of staff. Internal communication is essential to inspire teams and help them focus on what is most important. Relaunching the roles that were slowed down during the crisis to create value is a good place to start. It is also a unique opportunity for internal meditation: risk assessment, stress tests, operational readiness, emergency plans and business continuity plans are all critical and perhaps undervalued outside of the crisis.

Leadership, as always, is essential at this time. The quality of the relationship between management and operational teams plays a decisive role in the face of a crisis. However, if these conditions do not exist regularly, it is illusory to think they will appear immediately under the threat of the crisis.

VIII. CONCLUSION

After this crisis, public services will be able to better serve citizens, in particular by reorganizing work towards greater efficiency with Lean management tools which can improve performance of public services in the same way as they have improved the industrial sector.

Lean emphasizes the decentralization of decisions and responsibilities, the inversion of the hierarchical pyramid, the learning processes, the leadership and organizational innovation to build a more flexible and responsive administration.

The crisis is putting people and organizations under pressure. In times of crisis, we should not seek to reach the level of expectations, but rather to maintain the current level of performance. Lean tools help overcome the crisis and help organizations cope with less damage. However, they require capacities for coordination, learning and encouragement which must be developed within organizations outside the crisis period.

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