

# LEAN IMPLEMENTATION IN SERVICE SECTOR: THE ROLE OF CHANGE AGENT

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## Abstract

Many organizations in all industries and sectors around the world have been trying to adopt lean principles to create more values for customers and optimizing the resources. Lean is an improvement initiative that has attracted service sector to apply its unique principle in their operation. Despite successful story of lean implementation reported based on the benefit gained after the implementation, service sector are also unable to sustain their implementation and encounter many problems and challenge such as misunderstanding of real concept and purpose of lean implementation since the beginning of the implementation. Prior researcher has highlighted the important of change agent to begin lean implementation. This paper has reviewed the implementation of lean in service sector and discusses the role of change agent in lean implementation. Change agent should assist in the translation of lean by explaining the concept and providing enough information, communicate the benefit of lean at all level, and improves senior management commitment. Hopefully, the findings from this research could provide the managers in service sector with a better understanding of the lean transition and a clear guidance to minimize the resistance and overcome the challenges in lean implementation.

**Keywords:** Lean Implementation, Service Sector, Change Agent Roles, Managing change.

## 1.0 Introduction

Many organizations in all industries and sectors around the world have been trying to adopt lean principles to create more values for customers and optimizing the resources. Lean is a management philosophy focused on identifying and eliminating waste throughout a product's entire value stream, extending not only within the organization but also along the company's supply chain network (Scherrer-Rathje, Boyle, & Deflorin, 2009). Lean principle which was originated from The Toyota Production System (TPS) was developed in Japan by Ohno during 1950's. The Toyota Production System was based around the desire to produce in a continuous flow which did not rely on long production runs to be efficient but it was based around the recognition that only a small fraction of the total time and effort to process a product added value to the end customer (Melton, 2005).

Lean is an improvement initiative that has attracted service sector to apply its unique principle in their operation (Hamid, 2011). While manufacturing sector has been widely implementing lean in their operation, the application of lean in service sector is

still new (Piercy & Rich, 2009a). Either private service sector or public service sector, both organizations have to improve their services operations for their customers. Radnor, Walley, Stephens, and Bucci (2006) have proved that implementation of lean in service sector has improve the flow of process, reduce waste and add value for customers. The researchers that study the implementation of lean in service sector have identified many benefits from the implementation such as faster speed (Almehareb & Graham-Jones, 2010; Radnor & Osborne, 2013), reduce cost (Almehareb & Graham-Jones, 2010; Piercy & Rich, 2009b; Radnor & Osborne, 2013; Waterman & McCue, 2012) , improve quality ( Waterman and McCue, 2012; Radnor and Osborne, 2013; Piercy and Rich, 2009b) and increase customer satisfaction (Almehareb & Graham-Jones, 2010; Radnor & Osborne, 2013; Waterman & McCue, 2012). Beside, lean also provide other benefits in the public service sector which are increasing employees motivation and satisfaction (Pedersen & Huniche, 2011; Puvanasvaran, 2011; Radnor & Osborne, 2013) and improve teamwork (Almehareb & Graham-Jones, 2010; Puvanasvaran, 2011). According to Radnor and Osborne (2013) , the true effectiveness is when the public service able to remove the waste and focus on fulfills the needs of end-users and adds value to their lives.

Despite successful story of lean implementation reported based on the benefit gained after the implementation, service sector are also unable to sustain their implementation and encounter many problems and challenge since the beginning of the implementation (Radnor & Osborne, 2013) . The misunderstanding of real concept and purpose of lean implementation can lead toward failure. Prior researcher have highlighted the important of change agent to begin the lean implementation (Herron & Hicks, 2008). Change agent should assist in the translation of lean to ensure that all people in the organization understand the concept and purpose of the implementation.

The research of lean implementation in pure- service is still limited (De Souza, 2009; Piercy & Rich, 2009b). Several researchers have done studies on lean in few areas of service sectors such as in public municipality service (Arlbjørn, Freytag, & de Haas, 2011; Tang, Miao, & Xi, 2010), public financial service (Piercy & Rich, 2009b), airport (Almehareb & Graham-Jones, 2010) and hotel (Vlachos & Bogdanovic, 2013). Those studies are focusing on application of lean practices or improvement techniques in certain service sector and the suitability of lean adoption on the sector involve. The role of change agent is crucial in lean transition but there is still lack of study that focuses on the role of change agent in lean implementation. Therefore, this paper attempts to review the implementation of lean in service sector and investigate the role of change agent in lean implementation. This study will be significant both theoretically and practically especially those who lead the change project to have the skills, competencies and attitude to assist lean implementation.

## **2.0 Lean concept and principles**

Japanese have been practicing three basic ideas of lean manufacturing which are elimination of waste, cost reduction and employee empowerment (Ohno, 1988). The objectives of lean manufacturing are to reduce human effort , inventory, time, space and cost in order to produce high quality product to fulfill the customer demand (Chauhan & Singh, 2012). According to Liker & Hoseus (2008),” The way people think and behave is deeply rooted in the company philosophy and its principles.” The concept of TPS is based on two values which are respect for people and

continuous improvement. In respect for people value, the ‘people’ that is referred by Toyota includes employees, customers, investors, suppliers, dealers, communities and society. The sub-categories of respect for people are “respect” which means respecting and understanding each other while being responsible and give the best effort to build trust, and “teamwork” which means stimulating growth and sharing opportunities for development while maximizing individual and team performance (Liker & Hoseus, 2008). The second value which is Continuous Improvements is about never feel satisfied and always improving the business operation continuously by putting best ideas and efforts. The leaders in Toyota believe that investment in its people is the key of success. Lean is not just a set of tools and techniques but at its heart are the people (Ohno, 1988; Saurin, Marodin, & Ribeiro, 2011). It is important to reach the conducive culture before focusing on lean techniques (Bhasin, 2012b). Thus, it can conclude that the lean philosophy are based on 3 important aspects which are waste removal, resource optimization and establishment of right corporate culture in order to continuously improve customer satisfaction.

## **2.0 Lean Implementation in service sector**

There are several factors that drive service sector to apply lean principles in their operation which are the increased demands for cost reduction, improving quality of services delivered, resource utilization and improving service productivity (Piercy & Rich, 2009a, 2009b; Radnor & Osborne, 2013). In order to meet these increasing demand with lack of resources, managers in public sector begins to introduce lean in their organization due to the reason that lean is about ‘do more with less’ (Pedersen & Huniche, 2011). Lean thinking differs from other approaches because lean is not only as simple as just adopting the tools, but it is about understanding the philosophy of lean thinking which are continuously find ways to reduce waste and increase customer satisfaction along with the application of tools and technique (Radnor & Osborne, 2013; Schiele & McCue, 2011). The lean philosophy should be embedded in manager’s and employee’s minds so that the improvement can be practiced continuously (Hamid, 2011; Puvanasvaran, 2011).

### **3.1 Barriers and problems**

Radnor and Osborne (2013) revealed the actuality of successful implementation in public service is just one easy success but lack of sustainability. According to Pedersen and Huniche (2011), the organization that just transfer the theories and concept from other organization with different situation may become less successful because lean cannot be simply transferred across organization and expect that it will produce same benefits (Radnor & Osborne, 2013). Resistance from the management and the employees is one of the barriers that hinder lean implementation in service sector. It occurs at the beginning of the implementation because they were skeptical of the benefit and validity of the lean philosophy and assuming that it is another improvement initiative (Almehareb & Graham-Jones, 2010; Piercy & Rich, 2009a). Radnor and Osborne (2013) have outlined four challenges of lean implementation in public sector which are first, over reliance on lean workshop; second, using a tool kit based approach but not understand the philosophy; third, the impact of culture and structure in public sector and fourth; lack of understanding of the customer and service process. Implementing lean is not an easy task (Pedersen & Huniche, 2011). Puvanasvaran (2011) stated that the application of lean in public sector is more difficult than the private sector although the public sector also experienced the difficulties. Their challenges was in the aspect of managing resources for a new change program because of the inability of the managers that are lack of skills, experiences and the right mind-set to take the approach (Bhatia & Drew, 2006). Teamwork practice should be strongly built to ensure the continuous improvement of the service provided (Almehareb & Graham-Jones, 2010).

Another issue in lean transformation is on how lean thinking is transferred in the organization. Pedersen and Huniche (2011) found that the knowledge sharing between departments are limited and they did not have overall strategy to implement lean. Even worse, the employees are unaware of the purpose of their department been chose to undergo the transformation process. When this thing happened, they will not have the motivation to give full participation since they did not know the motive and benefit of implementation. The intent of lean is not to achieve short term goal where the organization focus on getting the benefit from the small project such as in term of cost reduction right after implementation but after a while the benefit become fade as Radnor and Osborne (2013) termed it as 'picking the low hanging fruit'. They stressed that no matter how easy this may be, it is important to become more eager toward gathering the higher hanging fruit which are usually more fresh and sweet. Therefore, the organization should focus on long term goal although that it would be hard at the beginning but it could achieve the better result. The benefits obtained are not the same for all organization that has implementing lean. Thus, the selection of lean tools and techniques should be based on the continuous evaluation by organization's members because not all lean tools survive in the long run (Pedersen & Huniche, 2011).

### **3.2 Factors for successful implementation**

A successful lean implementation requires leadership commitment and to have that, the top officer has to be a change champion for the organization and plays the roles to create awareness of the lean benefits, build the team for active participation of the whole organization and focus to drive and lead the implementation (Almehareb & Graham-Jones, 2010). The criteria of the person selected in the change team or specifically called 'lean team' are those who have a positive attitude to drive the improvement process (Piercy & Rich, 2009a). Education and awareness on expectation of what the management need from everyone in the organization should be clearly given in order to manage the changes during lean implementation (Almehareb & Graham-Jones, 2010; Puvanasvaran, 2011) . According to Puvanasvaran (2011), training is very important because well-trained people will contribute to the successful lean implementation. The training will help to develop the employees that are capable of receiving greater responsibility, develop their multi- skills and able to trigger themselves to do the continuous improvement. However, the training is not solely for the employees but managers also are not exempted so that the manager can develop their dynamic capabilities and therefore can manage the changes in their organization (Sim and Roger, 2009; Puvanasvaran, 2011). Besides, the skills and knowledge gained from the training can also help them to effectively practice the concept and efficiently utilizing the tools during the improvement process (Puvanasvaran, 2011). In order to be able to direct the implementation in the organization, the leader must have the self-motivation to manage the change which is necessary to move the system forward (Almehareb & Graham-Jones, 2010). According to Waterman and McCue (2012) a shift in behavior towards openness to accept change is a must but difficult to achieve in the large organization that have their own seated culture especially among senior level. Hamid (2011) have listed out the internal organization factors that could contribute to the success of lean implantation such as top management commitment, training and education, thinking development, employees' participation, working culture, communication, resources and business planning. Before the implementation of Lean in public service, the organization must have the readiness to accept the transformation process. The organizational readiness factors that need to be focused for the sustainable lean implementation in public service includes the understanding of the nature of process for public service, the identification of value in the service, and the active participation of employees in redesign the process (Radnor & Osborne, 2013). Lean philosophy is emphasizing on meeting customer's need,

and to fulfill the needs, government agencies have to give full effort to eliminate waste to save cost, improve quality and improve efficiency of service (Waterman & McCue, 2012).

#### **4.0 The roles of change agent in lean implementation**

A change agent can be considered as an internal and external individual that is responsible for initiating, sponsoring, directing, managing or implementing a specific change initiative, project or complete change programme (Caldwell, 2003). Lee et al.(2010) stated that change agent is a person chosen to cause organizational change. According to Bhasin (2012a),there exists a need to recognize that ultimately the best people to deliver any cultural change are the internal staff .Therefore the change agent should had a higher level of lean knowledge and skill than that of the person receiving the training. (Herron & Hicks, 2008). People resist change because they feel more comfortable and secured being in their immediate environment. The main reason is due to their individual resistance which are fear of the unknown, belief that change is not good for the organization and fear of losing something value (Robbin, Decenzo, & Coulter, 2010). Within a change programme, it is essential to remove the fear and anxiety in order to obtain the trust needed. There are few necessary roles for being a successful change agent. Schein (1997) indicated the role as:. being supportive; dealing with the realism of the situation; accepting lack of knowledge; seeing change as intervention; offering support; recognizing problems belong to them; not being prescriptive; learning from each intervention; involving people in the problem; and looking for resolution. Additionally, Buchanan and Boddy (1992) have listed competencies of effective change agents as clarity of specifying goals, team building activities, communication skills, negotiation skills and “influencing skills” to gain commitment to goals.

Everyone in the organization have to recognize a need for change. Massey and Williams (2006) suggested that in order to achieve this awareness they are required to scan their immediate workplace and they must agree their work area needs for change and start discussions on how to make the process and the job easier to perform. During this process the change agent acts mainly as a negotiator between team members and identifies the appropriate resources required for the project(Massey & Williams, 2006). The change agents have to interact with various types of “clients” to support change within their organization and it is importance for them to understand the clients and the reasons for the desired change (Schein, 1997).

The losses in knowledge varied according to the abilities of the change agents and the willingness of the companies to accept change (Herron & Hicks, 2008). Massey and Williams (2006) identified a major issue for the change agents was the lack of involvement and engagement of some team members. Firstly, the manager itself has to accept change. It is often said that major change is impossible unless the head of the organization is an active supporter (Kotter, 2007). There was a belief that the reason for some managers blocking change was because they already felt they were doing a good job and therefore there was no need for change (Massey & Williams, 2006). Pamfilie et al. (2012) suggested that first of all, they have to understand the change that occurred which requires a good communication, employee’s motivation for facing the project challenges and also well trained managers. Change agent development was very closely linked to management support because good change agents were sometimes held back when the management was unsupportive (Herron & Hicks, 2008). Although change in itself means uncertainty, managers are expected to generate clear and adequate formulation of what the problem is and where they would like the organization to be (Saka, 2003). Besides demonstrating commitment and leadership, top management must also work to create interest in the implementation and communicate the change to everyone within the organization. Through their involvement, employees are encouraged to contribute to the change which will take place and which will bring all benefits for all of them, thus feeling more confident

both in their own abilities and their work capacity and also in the organization in which they operate, developing their creativity and innovation(Pamfilie et al., 2012).

Ballé (2005) believes that many failures in the attempts to implement lean start with a fundamental misunderstanding of how to acquire lean. The techniques proposed by Robbin et al.(2010) to reduce resistance to change when resistance is due to misunderstanding is Education and Communication. The study done by Heijden et al. (2012) shows that change agents are important links in that learning process. Change agents should incorporate different ways to interact and exchange information between people from different departments, to engage all the people in the organization (Heijden et al., 2012). People communicate with others in their organization to reduce the number of possible interpretations, and in doing so make coordinated action possible (Eisenberg, 2006). Cultural and resistance issues have to be dealt and addressed during the early lean journey. Boyle et al.(2011) found that there is a number of cases plant managers were “let go” due to their resistance to lean and their inability to lead the cultural changes required for lean. Losonci et al. (2011) revealed that the awareness regarding the importance of managing employees during the lean conversion is not new but less attention is given on the human aspect such as what employees actually perceive, think and feel about the lean implementation.

Managers will be expected to lead the changes needed for lean success, and therefore their knowledge of lean and commitment to it will influence how well an innovating culture enables lean success(Boyle et al., 2011). The commitment of management and the ability of change agents are the key determinants of success that help companies to improve productivity through applying lean (Herron & Hicks, 2008). It is important for the managers to not only focused in narrowing their knowledge of lean but need to increase their knowledge in management as well. Boyle et al.(2011) realized that more support for lean improvements can be seen and there’s evidence of the company moving from simply implementing individual lean practices to lean thinking if greater management exposure to the current management literature. In short, it seems that the problems in lean implementation are related to the function of change agent. Therefore, the change agents are needed to overcome these entire barriers before and during lean implementation.

## **5.0 Conclusion**

This paper has reviewed the implementation of lean in service sector including the success factors and the barriers in the implementation and also discuss the roles of change agent in lean implementation through past literature analysis. The role of change agent is crucial in lean transition. The change agents should play their role in explaining the concept of lean manufacturing by providing enough information, communicate the benefit of lean at all level, and improves senior management commitment. Therefore the future research will develop a model that will serve as a basis of on-coming empirical study. Hopefully, the findings from this research could provide the managers in service sector with a better understanding of the lean transition and a clear guidance to minimize the resistance and overcome the challenges in lean implementation.

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