

Application of Lean Manufacturing to Hospitality Sector; Case Study, Ritz-Carlton Hotel, Riyadh-Kingdom of Saudi Arabia

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Abstract

In this research case study, the degree of applying Lean Thinking in The Hospitality Industry is presented by measuring the effectiveness of service management on at Ritz Carlton Hotel. Although Toyota Motors have started lean thinking as a manufacturing philosophy, it has been successfully expanded to the service industry across the globe. The main idea in lean thinking is the continuous strive towards reducing waste and adding value at all stages of the product/ service provision. The main focus of the study consists of assessing lean thinking applications in the housekeeping operations and quality management strategies in the only company to-date to receive two Malcolm Baldrige Quality National Award; The Ritz-Carlton Hotel. Studying the multiple factors contributing in that success, including their implementation of waste-reducing practices and compare this managerial approach to lean thinking.

Keywords

Ritz-Carlton Hotel, Lean Manufacturing, Hospitality Sector

1. Introduction:

Companies are looking for ways to reduce cost without threatening quality. One way to reduce expenditures is to focus on waste, as there are ways of cutting wastes of some of them by lean habits. Lean Thinking is mainly inspired by the Toyota Production System (TPS), which has been focused on elimination of waste and improving customer satisfaction. Lean manufacturing was initially introduced as a management philosophy aiming to reduce waste within and between manufacturing processes and systems. It is a set of principles, philosophies and business processes to enable the elimination of waste that did not add value to customers. It was mainly derived from Toyota Motor Corporation's Production System, and the word "lean", in this context, was first mentioned in James Womack's book (Womack et. al., 1991), *The Machine That Changed the World*. Lean practices have become popular among large-size companies (Abdelhadi, 2016). However, small and medium companies can learn and benefit from the application of lean practices in order to detect and reduce waste. Lean production systems focus on continuous improvement of processes, and respect for workers, customers and other contributors in the production process. This continuous improvement quest consists of identifying all possible types of waste and working on eliminating them or at least

minimizing their impacts on the values provided. At first, lean principles were perceived to be exclusive for manufacturing firms.

Meanwhile, lean thinking principles are extended and applied in the service industry although some firms are not aware that they are practicing core production concepts. In the context of Lean Management, “Lean” essentially means flexible, agile or light. Lean is a collection of principles, strategies and habits for the active and adequate composition and testing of the whole pipeline in the organization. Main purpose of Lean Manufacturing is making value without leaving waste (“Muda” in Japanese). The added value is defined as any action or process that the consumer would be willing to pay for. Lean tools therefore help to identify and to eliminate waste. When the waste has been reduced, quality levels and standards rise up while costs and service time are reduced. Additionally, operating costs can be significantly reduced mainly through improving service efficiency and reducing waste within the process (Hintzen et. al., 2009; Ashok et. al., 2013) Examples of successful application of the lean thinking concept can be seen in manufacturing systems and production activities, Almomani et al. (2013) where the aim is to reduce lead time, eliminate waste, reduce non-added value activities, and improve end quality. In recent years, both academic and industrial researchers have extended the application of lean thinking into many service operations, such as human resources and healthcare (Feng, 2008; Abdelhadi, 2016), information technology (Hicks, 2007), sales, marketing and office service and administrative processes Hyer & Wemmerlov (2002), call service center, and public services (Rahbek & Huniche, 2011).

According to Womack et al. (1991), the philosophy of Lean Management is based on five main principles:

1. Define value: Define what the customer needs.
2. Generate a healthy flow: By studying the wasted time and smoothening the arrangements of operations toward the customer.
3. Construct the Value Stream Mapping: Draw all the sequence of operations and processes with the timeline and try to find the wasted time.
4. React to consumer pull: As flow is constructed, let the consumer pull the value from the next upstream operation rather than pushing it.
5. Seek excellence: When the value has identified, value stream is identified, wasted processes have been canceled and the flow and pull will begin. Therefore, start the process again and improve it until reaching the phase of perfection in which completed value is constituted with no waste.

Nowadays, Lean Manufacturing is practiced in different fields and relates to the most important and most well-known executive technics at all. For instance, it is applied in the management, civil works, hospitals, maintenance, product design and many more.

2. Lean in Service Industries

Lean isn't about manufacturing. It is about assimilating work processes to make problems clear so we have the chance to eliminate them. Lean's success has been tried, examined and proven in manufacturing as well as with the service industry constantly (Salamzadeh et al., 2014). Some are skeptical and argue that methodologies intended to streamline manufacturing processes cannot simply be replicated within other industries. However, after becoming familiarized with the core principles of lean, many companies believe that it is not just specific to physical products and that it can be easily shaped and adapted to suit other sectors too. The fundamental concept of lean is to help businesses establish what is valuable for their customers and then optimize their value creating processes by cutting out waste and to make sure that the whole processes complete and perfect so that the service goes in a smooth manner.

It may be more challenging to define intangible wastes in the service sector; the pillars of Lean Manufacturing are going to be the same-to acquire the highest productivity and performance with the lowest costs. Lean is a basic methodology that is applicable to any process; the basic concept remains the same, Remove Waste. Lean is applicable in the service industry as it is in the auto industry. Organizations in the service industry are continually under stress and pressure to provide the perfect customer service, faster reaction times and more beneficial support for their consumers. Lean can help to optimize all service delivery processes by targeting wastes; either removing them completely or move to a more effective state as part of the journey of continuous improvement. Service industry sectors e.g. hospitals, supermarkets, maintenance providers and even hotels have a major common goal with manufacturing systems; pleasing the customer at the right time, at the lowest cost possible. This cannot happen unless companies strive for a holistic, long-term continuous improvement strategy. An integrated approach to tackling operational problems as well as training workers so that such errors are avoided and learned from in the future.

3. Hospitality Sector

Hospitality sectors either small or big are looking at strategies to conduct lower costs and to become more effective in purpose to keep and stay afloat in this dynamic economy. Cutting costs in labor has been a popular topic but it is a risky move in the hospitality industry where service may be compromised through cutting costs. Quality service is scanned by the customer in hospitality more than ever due to the fact that, in particular, luxury segment customers are fewer and are often spending more. In spite of the economic whether, service sectors and especially hospitality sector should have the ability to reduce costs and keep providing a high-quality standard (Rauch et al. 2016). A proven, effective way to do this is to adopt the principles of Lean Thinking which have created remarkable turnarounds. Many companies considering themselves “Lean” are doing well in this current economy. Despite this, hospitality firms that have embraced Lean Thinking are few. The international hotel industry is a half-trillion-dollar sector, and an important part of an over 7-trillion-dollar industry that depends solely on customers’ satisfaction with the quality of service, and the price paid for it (Pascal, 2012). Therefore, competitive advantage is a crucial part of the decision taken by customers for staying at one hotel or another and whether they would like to come back or not. The creation of a competitive advantage is optimally gained by the reduction of operations cost and adding value to the service processes. In this paper, we are going to extend lean thinking principles to the hotel industry by studying opportunities for waste elimination and value addition for the ultimate goal of customer’s comfort and fulfillment. Using The Ritz-Carlton Hotel in Riyadh, Saudi Arabia as our case study by interviewing several managers dealing with quality issues to see the implementation of the high quality standards and the service facilitation; that made them on the top ranked hotels and the only winners of Malcolm Baldrige National Quality Awards twice.

4. The Ritz Carlton Managerial Approach

The Ritz-Carlton Hotel is the only company to-date winning two Malcolm Baldrige National Quality Awards. Quality of service is directly related and influenced by the application of waste-reducing practices; lean thinking. Thus, it was obvious that the best-case study on the application of lean thinking in the hospitality industry is best conducted on such a firm.

They adapted several basic concepts in their managerial approach, such as; the employee promise is the basis for the Ritz-Carlton work environment, it will be honored by all employee, the employee will successfully complete annual training certification, everyone should have the responsibility to support the company’s objectives, each employee should continuously identify defects, empowering the employee, uncompromising level of cleanliness is the responsibility of everyone, and so on. These examples match to a high degree the lean manufacturing concept (Jacobson, 1996).

In the following sections we’ll point out and discuss the different aspects of implementing and projecting lean manufacturing philosophies in The Ritz-Carlton Hotel’s framework and operations (Buckhead, 1994).

5. Respect for People

Starting from the motto "We are Ladies and Gentlemen Serving Ladies and Gentlemen", this reflects one of the most important lean-thinking principles: Respect for People. Respecting employees is crucial in the Ritz-Carlton. Respecting workers is continuously expressed throughout the organization, from communicating company’s objectives, and the involvement of staff in the continuous improvement planning, to annual training certifications for their professional development in their area of work. Furthermore, creating joy and fun in the workplace is the responsibility of every employee towards his/her colleagues and subordinates. One way that The Ritz-Carlton uses to measure its employees’ engagement is by listening to their concerns and opinions; this follows a major concept of lean manufacturing as presented previously. For new employees, this feedback happens at the 21st day of their work engagements. Such an activity is an opportunity to listen to employees’ needs, suggestions toward improvements, solve their problems and also see if they fit in the general culture in the workplace they assigned to, or they should be transferred to other sections. After this day, The Ritz-Carlton uses regularly Gallup Q21 (an employee’s engagement metric provided by Gallup). Such measures help the company evaluate the level of engagement of each Lady and Gentlemen, and also to detect any errors in communicating the culture between employees. All employees are entitled

to talk openly about their job, their trainers, supervisors and also any defects found in a specific process that they have a potential solution for.

Creating a culture that supports learning from mistakes (Poka yoke), pleasing customers, and enjoying the work with colleagues, leads to increasing loyalty and openness so that everyone is working hard for a common, communicated goal; taking care of customers' needs and desires with minimum waste. Waste was expressed by supervisors as anything that negatively affects customer's experience e.g. waiting time, unavailable linens, unavailable supplies, long response time, transfer of calls, complexity of procedures, and even misunderstanding customers' needs and unexpressed desires are all considered waste-generating elements in the eyes of housekeeping and customer service personnel that the customer is not willing to pay for.

The other half of the motto is inclusive of serving customers, respecting their expressed and unexpressed needs, wishes and emotions. "Ladies and Gentlemen" are required to respond and fulfill guests' requests within 10 minutes. In order to meet guests needs, employees are empowered and entitled to detach themselves from their regular duties to address issues faced by guests. Quality of service in the Ritz-Carlton is not limited by only meeting the demands of customers, but meeting them in the right time, in the right place, and in the most appropriate, safe and unique manner (Just in time concept). And to make this easier and more convenient in the future, employees record customer's desires and needs in Mystique, a knowledge- management system dedicated to recording guests' preferences in order to fulfill them in future stays. This service framework can be imagined as a one- piece flow system in a manufacturing facility, but here the focus is on satisfying the guest needs systematically and in a standardized, predictive manner. Moreover, even guests' complaints are received and responded to in a systematic way. L.E.A.R.N model is mandated on employees whenever a complaint is received. Listen, Empathize and understand the problem, Apologize, decide a Reaction, and take the decision Now. Such models prevent the employee's personality from dictating the situation, yet constitutes a specific way for handling guest issues, which will ensure all guests full engagement.

6. Continuous Improvement

Another principle that is constituted in the operations is that each employee is responsible for continuously identifying defects throughout the hotel. They named these activities Mr. BIV. The acronym stands for Mistakes, Rework, Breakdowns, Inefficiencies, and Variation in work processes. All employees must report a Mr. BIV situation to the appropriate, specialized person so it can be dealt with right away. When a problem is reported, supervisors ask WHY? five times to reach the root cause rather than solving only the symptoms. In this system, each employee is considered as an "improvement manager" in the Mr. BIV continuous improvement system. Employees are not blamed when a situation is reported, when a defect happens twice then it is a defect of the process; fixing the process is the solution. Once a Mr. BIV situation is reported, a six-step problem solving procedure is applied. The first thing done is identifying the problem, analyzing it, generating potential solutions, selecting and planning the selected solution, implementing it, and finally evaluating the resolved situation.

Generating a new value for the customer and reducing time lost have also a specific methodology. First of all, a cause-and-effect analyses are done to determine the type of improvement and the cost it in order to be planned. The second step is to define the status of the expected process when a Mr. BIV is eliminated. Then the process is mapped, including all activities and their interrelationships. After that, the process is observed to detect the potential waste-generating activities.

As we can notice, the main types of waste in the context of hotels operations are almost the same as the ones in the lean manufacturing philosophy. For example: a banquet set up has a standard time of 8 minutes per table, table set-up is 25 minutes per table, and buffet service time is 4.5 minute per patron. They discovered that around 13 minutes were wasted in re-polishing glasses and utensils, and around 10 minutes in sorting them. To solve this problem, wasted times can be reduced by applying and conducting monthly inspection for the 5Ss organization method. The 5Ss are: Sort out, set in order, Systematic regular cleaning, Standardize the process, and Sustain the system.

7. Standardized Processes

Standardization of processes is one of the most powerful principles in Lean management philosophy due to its impact on cycle time, productivity, quality and ease of training workers. Housekeeping operations are one of the most crucial factors in the customer's selection of a hotel due to their direct, tangible impact on guests and their versatility. Thus, it was emphasized that these activities must be standardized and inspected in an orderly and systematic manner. However, housekeeping activities are the result of multiple management strategies; housekeeping officers are usually

trained in such a way that complies with the quality management's standards, inventory policies, and specific operations procedures that as a consequence satisfies the customer at the lowest levels of "waste".



Figure 1, Items are sorted according to their type

In this case study, we observed housekeeping operations, starting from supplies inventory room, where 5S's are applied as shown in Figure 1 and housekeepers' routinely schedules, accompanied with interviews with the Housekeeping Dept. manager, and other housekeeping staff in order to understand and project lean thinking principles on the housekeeping department at The Ritz-Carlton Hotel. According to the housekeeping department manager, housekeeping is a 24/7 activity that functions through three main shifts. Even though, the busiest hours are from 8:00 am to 4:00 pm due to the need to clean and organize checked-out rooms and also customize, and set-up the rooms to be ready when new guests arrive. Every day at 6:00 am, the coordinator comes and plans housekeeping operations for the day. Based on that, the workers are allocated for the different floors and facilities of the hotel. During mid-night's shift, the work is less intense, which makes preparing caddies, amenities, refilling chemicals and replenishing other supplies part of their duty. This task makes the early-morning shift ready, and at the same time saves set-up time of replenishing supplies during rush hours. Each room segment has a previously specified standard cycle time; 30 minutes to prepare an occupied standard-sized room.

The room cleaning process is standardized, the room attendant has a checklist and all activities should be done in a systematic manner. After opening the curtains and the windows, they start by removing trash, and used linens, making the bed, then cleaning the toilet, and finally vacuuming the floors. This sequence has an abbreviation of the A.B.C.; Away garbage and linens, Bed making, Clean the bathroom. It is worth mentioning that while making the bed chemicals are left dwell time to break down the buildup, so after that it will be easier to clean, and more hygienic. At the end the room attendant gives the room a last look, for 30 seconds, to make sure that nothing is left and all activities are performed as required. The aforementioned processes combine both the standardization and the quality-at-source lean principles.

Each room attendant has a fully loaded cart with all the needed supplies and linens. In addition, there are dedicated workers to check the carts after a specified number of rooms, to replenish the linens and caddies, and to take away the used, dirty linens to the laundry, a process resembles Kanban methodology in lean manufacturing. In each floor there are two main pantries, that are filled based on the reservations for the specific day or week (similar to the pull system in manufacturing), to replenish carts during the day, and store supplies in order to reduce wasted time in the worker's motion between the main inventory and the main working area. In addition to that, each pantry has two service elevators, leading directly to the central laundry area, and the central inventory area in an attempt to reduce movement time, too. It is worth mentioning that inventories are monitored so that once the level of stock reaches a specific level that is different based on the supply's type e.g. linens are reviewed quarterly, while amenities have weekly-bases reports. Room attendants' productivity is calculated based on the number of rooms they clean, and they have a one-hour break that is monitored by a punching system. Punch in/out for break time to sustain control over the actual value-adding time of each employee in the hotel.

8. Conclusion

In this case study, we projected lean thinking principles into the hospitality industry. We discovered many of the areas where lean principles are applied, even though unknowingly, in an adaptive manner to the hotel's operations, taking The Ritz-Carlton Hotel as the role model for hotel operations excellence. Standardization of operational processes and the respect for both employees as well as guests led The Ritz-Carlton Hotel to reach such a high-bar service advantage. This is an indication of the easiness of the application of lean thinking to this type of industry due to the fact that lean thinking is a commonsense application managerial system.

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Biography / Biographies

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