

A STUDY ON THE IMPACT OF LEAN MANAGEMENT OVER DIFFERENT ORGANIZATIONS

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ABSTRACT

The purpose of lean management helps us to appease the satisfaction of customer thereby it reduces cost of production. The article is a portrayal of the issues related with the lean management in various firms. In today's scenario to withstand in the competition every industry is subjected to provide high quality products at a cheaper cost. This objective could be achieved only through Lean management. The main aim of this paper is to highlight the different concepts of lean management and its various tools of strategies. Among the concepts Lean waste, Lean barriers, Lean strategies, Lean Implementation cycle could be explored. This paper portrays a true view and fair state of affairs of lean management and its different strategies through Review of literature.

INTRODUCTION

Now a day, the Lean management concept is earning popularity in the business world. Actually, there is no surprise that Lean management is now widespread across industries. Due to its core values and positive impact on companies' overall performance, the Lean concept appears to be a universal management tool.

Everyone can apply the concept of Lean in any business or production process, from manufacturing to marketing and software development.

The Lean methodology relies on 3 very simple ideas:

- 1) deliver value from your customer's perspective
- 2) eliminate waste (things that don't bring value to the end product)
- 3) continuous improvement

Lean manufacturing is a discrepancy on the idea of efficiency based on optimizing flow. Lean manufacturing helps to attract manufacturing operations and pick up the industrial jobs and customer satisfaction (Sing et al., 2010). When lean manufacturing is successfully followed, there is a good growth in the quality and the output productivity and also reduction in the completed wares inventory and work process (Seth & Gupta, 2005). The main goal of lean manufacturing is to help out the manufacturers who wish to progress the industry operations and best quality with good customer satisfaction in less amount. In manufacturing sector, there were new philosophies to produce maximum quantities by creating fewer unwanted activities. With proper implementation of different parameters profit will be much more (Delattre, 2002). Lean manufacturing lifts overall production output and power up customer and the employee's job satisfaction to the idea of optimizing flow the concept of lean management stands to be an hindrance Lean methodology is about continuously improving work process purposes and people. Instead of trying to hold total control of work processes and keep the spotlight, Lean management encourages shared responsibility and shared leadership.

This is why the two main pillars of the Lean methodology are:

- Respect for people
- Continuous improvements

Back in late 1940s, when Toyota put the foundations of Lean Management they aimed to reduce processes that don't bring value to the end product.

METHODOLOGY

This research paper is purely depended on literature review of lean Management. The complete details were collected from the number of journals worldwide, national and international conferences. In promotional stage, many innovative ideas were collected from web and books which provided vast amount of recourses for this paper. The appropriate solution has been explored from literature review. This paper will help us to get to know the concept of lean management.

For the purpose of the study, primary data is collected from various business person especially hotel sector where there is a need to implement the waste and lean management techniques.

The objectives of the Article of the lean management reveal the realistic position of different phases of life cycle of the lean Management concept adopted by the author.

These are:

- Identification and framework structure of the lean management concepts and submission of the very important determinant factors for Efficiency in Execution of the lean.
- Exploration of the subject and realistic problems of the Up to-date studies devoted to experience related to execution of lean in organizations.
- To study the ways of waste management techniques used by the business
- To understand the model and the structure of the business in the growing economy
- To analyze the fund proportion of the business in relation to waste management

The author applies probing analysis of literature and synthesis

The main goal of lean Management is to facilitate the manufacturers who are interested in making their operations progressive with the high quality with a well managed customer relations within less time. Proper implementation of different parameters execution will bring more profit Lean manufacturing pushes up output and power up customer and thereby brings job satisfaction of employees.

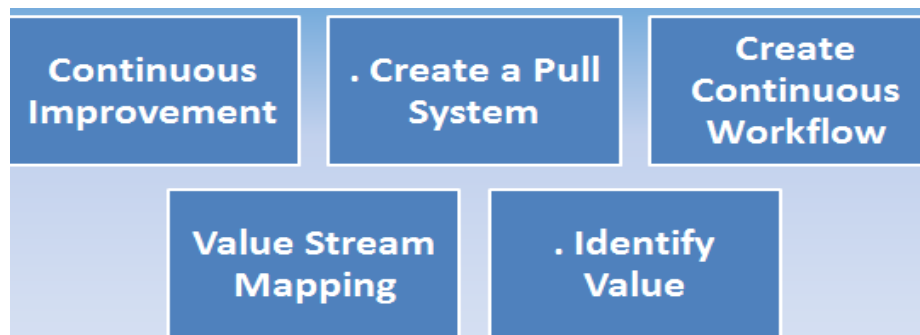
By the end of World War II, Japanese manufacturers developed lean manufacturing, primarily in automotive industry. In the midst of problems like shortage of materials, money and human resources, time was considered to be a major problem. In Toyota motor company, Eiji toyoda and Taiichi ohno promoted a concept of “Toyota Production System”, and at present it is popularly known as “Lean Manufacturing Management”. The main purpose of this system is to cut down wastage. After enormous success of lean manufacturing in Japan, other firms and industries, mainly in US, started to imitate this amazing system. The expression “Lean” is defined as less utilization. Lean

management was not created in a moment. Instead, it is evolving gradually. So, let's get to the basic principles of Lean management.

Lean Management (LM) has been widely recognized and accepted by different industries because of the fact that LM eliminates wastages.

The present world has connected and Interlinked national economies to the networked world economy. After the Rise of liberalization, privatization and globalization paved a way for the growth of profound economic, social, environmental and technological pressures in today's organizations. Competition has become tougher, stronger and the customers are more demanding. Rivalry has brought forth a drastic change in all aspects of production such as cost, quality of service product and technology.

Lean Principles



The 5 Basic Lean Principles are

- 1. Create Continuous Workflow:** After you mastered your value stream you need to make sure that the workflow of each team remains smooth. Have in mind that it may take a while. Developing a product/service will often include a cross-functional teamwork. Bottlenecks and interruptions may appear at any time
- 2. Create a Pull System:** However, in order to secure a stable workflow, make sure to create a pull system. For example, you go there and order a pizza. The baker pulls your order and starts making your pizza. He doesn't prepare tons of dishes in advance because there isn't actual demand and these tons of dishes can turn into a waste of resources.
- 3. Continuous Improvement:** After going through all previous steps, you already built your Lean management system. There are different techniques to encourage continuous

improvement. For example, every team may have a daily stand up meeting to discuss what has been done, what needs to be done and possible obstacles.

4. Value Stream Mapping: This is the point where you literally need to map the workflow of your company. It has to include all actions and people involved in the process of delivering the end product to the customer. By doing so, you will be able to identify what parts of the process bring no value.

Applying the Lean principle of value stream mapping will show you where a value is being generated and in what proportion different parts of the process do or do not produce value. This big-picture will enable you to detect the steps that don't bring value and eliminate them.

5. Identify Value: What does every company strive to do? To offer a product service that a customer is ready to pay for. To do so, a company needs to add value defined by its customers' needs. Any other activity or process that doesn't bring value to the end product is considered waste. So we first need to identify the value that you want to deliver and then proceed to the next step.

REVIEW OF LITERATURE

The lean management is the growing concept in business sector. Those papers acted as a base which showed the scope of our study to make a clear study and research. They are as follows:

Holweg (2007) – The history of lean, JOM

Matthias Holweg's article "The genealogy of lean production" provides an excellent introduction to the historic development of the Toyota Production System and the subsequent birth of lean. Based on extensive expert interviews and reviews of the literature, Holweg distills a helpful historic timeline of the development of lean. (1296 citations in Google Scholar, 460 citations in Scopus.)

Source: <https://group2lean.wordpress.com>

Ferdows and De Meyer (1990) – Cumulative capabilities,

The groundbreaking article "Lasting improvements in manufacturing performance: In search of a new theory" by Kasra Ferdows and Arnould De Meyer is usually sorted as an

operations strategy article, but it is just as much about lean production. Source: <https://group2lean.wordpress.com>

Spear and Bowen (1999) – Importance of scientific thinking, HBR

One of the latest “rediscoveries” in the lean popular literature seem to be the importance of scientific thinking in Toyota’s practice (c.f. Toyota Kata) and conducting quick cycles of experiments (c.f. lean startup, or agile). They concluded that the goal of TPS is to create “a disciplined yet flexible and reative community of scientists who continually push Toyota closer to its zero-defects, just-in-time, no-waste ideal”. (1707 citations in Google Scholar). Source: <https://group2lean.wordpress.com>

Shah and Ward (2003) – Lean as bundles of practices, JOM

If I got \$1 every time the definition of lean is discussed, I would be a wealthy man. Lean remains an ill-defined phenomenon and thousands of authors have tried to come up with better and clearer definitions of lean. Most fail, with an exception of the seminal article “Lean manufacturing: context, practice bundles, and performance”. Source: <https://group2lean.wordpress.com>

Krafcik (1988) – Birth of lean, MIT SMR

No list of the top scientific lean articles would be complete without the one that introduced the word lean for the first time: John Krafcik’s “Triumph of the lean production system” published in MIT Sloan Management Review. The article does a terrific job in debunking the big myth at that time (still prevailing in some companies today) Source: <https://group2lean.wordpress.com>

Sugimori et al. (1977) – Kanban, IJPR

This timeless article represents the industrial engineering soul of the Toyota Production System. Y. Sugimori and coauthors’ article “Toyota production system and Kanban system: Materialization of just-in-time and respect-for-human system” was published in the International Journal of Production Research in 1977

The concept of lean manufacturing was developed for maximizing the resource utilization through minimization of waste, later on lean was formulated in response to the fluctuating and competitive business environment. Due to rapidly changing business environment the organizations are forced to face challenges and complexities.

The Impact of Collective Term and the exposure of various characteristics are given below.

Collective Term	Characteristics
Just in Time practices	e.g. Production leveling, Pull system, Process synchronization
Resource reduction	e.g. Waste elimination, Lead time reduction, Inventory reduction
Improvement strategies	e.g. Continuous improvement, Root cause analysis, Improvement circles
Defects control	e.g. Failure prevention, 100% inspection, Line stop
Standardization	e.g. 5S, Visual control and management
Scientific management	e.g. Cellular manufacturing, policy deployment, work-force reduction
Bundled techniques	e.g. Statistical quality control, Total productive maintenance
Human relations management	e.g. Team organizing, Cross training,, Employee involvement
Supply chain management	e.g. Value stream mapping, Supplier involvement

Source: Adapted from Petterson, 2009

Determinant factors of Implementation of lean Management

The Recent scientific research assured that execution of lean is a really complex undertaking. Below there are promoted diagnosed determining factors for efficacy of the execution.

METHODOLOGY OF IMPLEMENTATION

The traditional mass production systems prove to serve sufficiently the needs of the industry, have been questioned and consequently outperformed by new Innovative concept of lean production. In an effort to offer us a comparative insight between the 'old' and 'new' school of thought and their related Impact on both business and operational levels, Jackson (1999) has given the following figure:

Affected Areas	Mass Production	Lean Production
Company Strategy	Strategies focused on product leading to economies of scale for the production of stable products and commodities	Customer centered strategy focused on identifying and fully exploiting a continuously changing competitive advantages
Business Structure and	Hierarchical structures	Flat/Horizontal structures

Hierarchy	encouraging the application of instructions and discouraging significant information flows targeted at revealing product defects, operating errors, equipment problems and organizational flaws	encouraging initiatives and information flows that highlight product deficiencies, operating problems and equipment errors
Business Competency	Obsolete tools based on extended production units and top down working environment without promoting skill development and problem solving	Seamless product flows from suppliers to manufacturers and in turn to customers. Smart tools based on standardized work, ability of problem identification, review and experimentation

In connection with this Table, another complementary view of the differences between the systems of mass production and the Lean concept has been presented according to Killpatrick (2003) and Petö (2012) relatively, as follows;

Concept	Traditional Organization	Lean Organization
Inventory	An asset, as defined by accounting terminology	A waste – ties up capital and increases processing lead-time
Ideal Economic Order Quantity & Batch Size	Very large – run large batch sizes to make up for process downtime	ONE – continuous efforts are made to reduce downtime to zero
People Utilization	All people must be busy at all times	Because work is performed based directly upon customer demand, people might not be busy
Process Utilization	Use high-speed processes and run them all the time	Processes need to only be designed to keep up with demand
Work Scheduling	Build products to forecast	Build products to demand
Labor Costs	Variable	Fixed
Work Groups	Traditional (functional) departments	Cross-functional teams
Accounting	By traditional FASB* guidelines	“Through-put” Accounting
	Inspect/sort work at end of	Processes, products,

Quality	process to make sure we find all errors	and services are designed to eliminate errors
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Source: Killpatrick (2003)

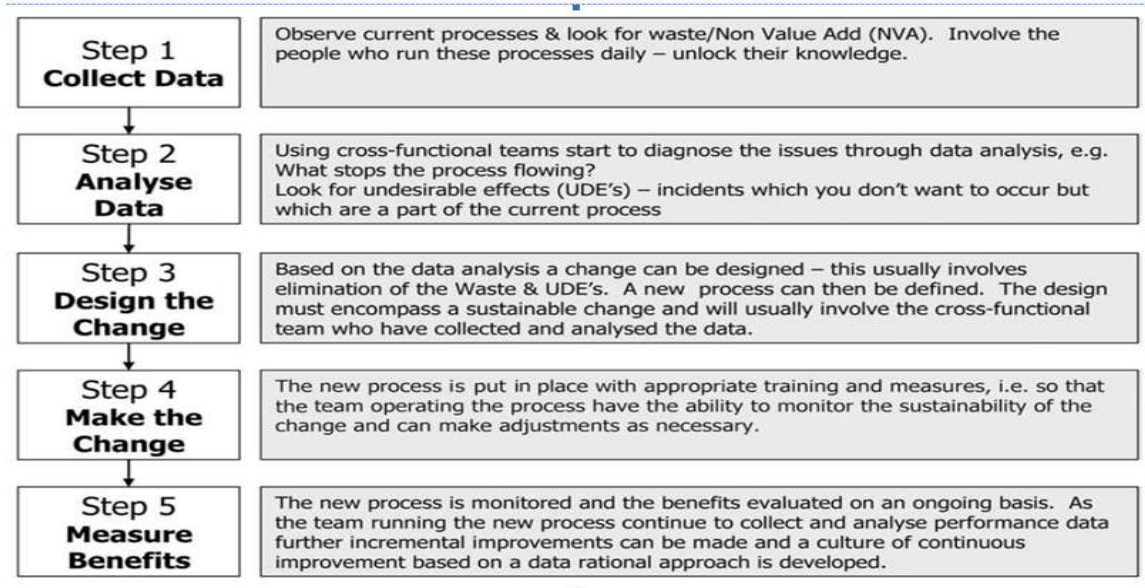
	Mass Production	Lean Production
Basis	Ford	Toyota
People-design	Narrowly skilled professionals	Teams of multi-skilled workers at all levels in the organization
Organizational philosophy	Hierarchical management takes responsibility	Value streams using appropriate levels of empowerment, pushing responsibility further down the organization
Philosophy	Aim for ‘‘good enough’’	Aim for perfection

Source: Petö, 2012

Concerning the conceptual structure about the necessary preconditions of Lean application and the resulted benefits, along with the impediments that may hinder its realization, as a result of the literature review we have developed the following framework:

The studies on the implementation are based around two approaches. The first one aims at cataloguing the execution process, such factors include: management and leadership, organizational cultures, goals and objectives, problem solving skills, continuous improvement, financial capabilities, performance measure, change, education and plan. The second approach is related to formulate order of proceedings in the process of implementation. This concern about the process of activities related to results measurement and continuous improvement.

All customer-supplier connections should have absolute connection. There should be a clear method for two way communication responses to problems and lean enterprises straight communication process pathways that are efficient and broad. Bothering the conceptual structure about the needed preconditions of lean application and the intended benefits, along with the characteristics that may block its realization, as a result of the literature review. They have developed the following framework:



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Lean requires clear cut communication, between all value streams. All customer-supplier connections should have absolute connection there should be a clear method for two way communication responses to problems, and lean enterprises straight communication process pathways that are efficient and broad. Bothering the conceptual structure about the needed preconditions of Lean application and the intended benefits, along with the characteristics that may block its realization, as a result of the literature review.

Implementation of flexibility in the application of strategy

Recognizing the need for application of flexibility strategy in the course of lean implementation would pave the way for two fundamental prerequisites. The first one analysis of success/failure rates of execution processes (e.g. in the UK only one in ten

lean projects ends with success), the other is the conviction that each case of lean execution is special and It need to a great extent developing an individual approach.

CONCLUSION

The literature portrayed realistic ground situation through this could help the author to draw conclusions:

- The present scenario shows that Most of the Managements practiced one hand practices of production system. But some Management like Toyoto adopted diversified practices on the later years.
- Lean management is self objective oriented management. It has got diversified exposure and concentrates on Improvement of efficiency by continuous effort
- Even then Lean management is influenced and created by various principles and practices. Even it may be appear to be abstract, practically it is detailed and pragmatic.
- The concluded probing has indicated various determinants which could lead to efficient lean implementation. For that purpose it has to bring adequate change in the organization and improvement in communication process and the strategy adopted has to get revamped apart from this entire SWOT analysis has to be applied and followed by the SCM net work has to be strengthened.
- The implementation of lean may not be having universal character. It may vary from place to place but at the same time, experience in lean management could become potential path to be followed by everyone.

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