

# Lean Thinking in Service Sector

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**Abstract:-This paper explores the rationale and value of applying lean principles to service sector organizations by finding the application of lean production improvement in service sector and to understand tools and technique to get maximum output from service sector. In fact, it is a mix of tools and practices that are applied according the situations that are to be improved. Companies mainly engage in lean production because of three reasons, to reduce production cost, to increase customer responsiveness and to improve product quality, this all specifically aiming in improve profit and competitive edge over others. The implication of lean in service sector is relatively new as compared to manufacturing sector. Usage of these tools in service sector must be driven up. This paper give a clear view on implementation of lean in service effectively and the contribution of lean service on improving the quality in the service provided while reducing the cost.**

**Keywords:-**Lean Principles, Lean Service, Customer Pull.

## I. INTRODUCTION

Lean is a production follows that aims to minimise waste on entire value streams and create more value for purchasers. According to lean principles, any use of resources that does not deliver consumer value is a target for amendment or elimination. This philosophy has primarily been applied in production, notably in Toyota, and the Toyota Production System. Lean thinking involves understanding the philosophy of continuously finding ways to cut back waste by applying lean tools and techniques for customer satisfaction.as per manufacturing context productivity is measured as the relation between produced output and used input in which quality of input were assumed constant but in service sector this can't be easy because each customer have different perception of quality. Therefore service productivity is a study comprises of customer satisfaction. Lean is concerned with stabilising and standardising the work processes so that the critical problems become clearly visible and the workforce develops critical thinking capability so that they are able to solve the problems and improve the work flow. Service firms need to meet the

specific needs of each and every customer so that they can continually keep ahead of their competitors.

## II. LITERATURE REVIEW

According to Niall Piercy and Nick Rich (2008) the application of lean tools to the pure service setting is still emergent. Mangers. And practitioners within the pure service environment are facing increased demands for cost reduction and improvement to quality of service provided Classical management thinking has seen these as opposing goals whereas a lean management system identifies cost reduction as a function of quality improvement due to a reduction in system failures. Within the services marketing community, there has always been an interest in improvement activities that primarily concentrate on understanding customer demands and requirements and the other area to focus on actually improving services, remains under-developed in the marketing community.

A comprehensive study conducted by Bryan McIntosh, Bruce Sheppy and Ivan Cohen(2013) has done implementation of practices imported from manufacturing into healthcare as a answer to rising healthcare spending and dissatisfactory patient safety indicators. proof suggests that related Lean concepts, tools and techniques could only be implemented piecemeal owing to the needfor service processes to cope with wider outputs and accompanying uncertainty, whichis often the case in manufacturing. This is due to labour intensively in healthcare analysis evaluating Lean's impact on healthcare performance, particularly thosecontributions focusing on implementing strategic HRM and TPS it is found that Lean management contribution to higher organisational performance remains inconsistent.

The study has conducted concerningLean tools used to establish current state processes, determine wastes and develop service improvement opportunities primarily based upon defined customer values. It has demonstrated that by using Lean thinking, healthcare services use varied Lean tools and techniques to determine current state operational processes,Identify variations and wastes it demonstrated how healthcare organisations could tailor their service

redesign strategy to ensure engage with relevant individuals to maximise value creation and improvement impact. The study also applied Carlborg et al.'s (2013) service design frameworks to elucidate why some of the Lean principles weren't applicable for application in the SPA setting. Siu Yee Cheng ,David Bamford, Marina Papalexi and Benjamin Dehe(2015).

Based on the analysis performed by Manuel F. Suarez Barraza ,Tricia Smith and Su Mi Dahlgaard-Park(2009) is to shed light on how lean thinking is applied in order to boost those services . Provided to the general public by native councils by describing empirical studies in specific Spanish contexts. And therefore the result's is shown that three technique associated with lean-kaizen have a right away effect on the processes and management systems in local councils. The three techniques are: 5S, gemba kaizen workshops and process mapping. This technique will improve the method and quality of public services thus it is an ideal example for managers and directors in public office who want to be Or who are already concerned in the implementation of specific lean-kaizen initiatives because it demonstrates that their efforts can and do have positive impacts and might be sustained over time.

The study conducted by Niall Piercy and Nick Rich (2008) on three financial service firms within the UK through a common programme of lean transformation. This programme is evaluated to determine the "leanness" of the initiatives it is find that the lean approach shows much validity in the pure-service context that was studied. This was achieved with comparatively little investment and minimal training. The opportunity for companies to replicate such validated lean approaches in the pure service context is significant at both the organisational level and for the wider economy. A major benefit in lean adoption in the call centre business concerns a reduced need to offshore work to reduce costs.

David Arfmann and Dr. Federico, G. Topolansky Barbe (2014) studies on value of applying lean principle to service sector organizations the author says that there is a lack of understanding and knowledge on lean value of lean principle when it comes to service organisations. lean may not have answers to many of the challengers faced by service industry this is because service is different from push and pull practice , in the inability of storing capacity, within the creation process and particularly in the variety of demand.

Abdelhakim Abdelhadi (2016) The customer lead time is the focus of this study. Takt time is used to seek out the relative efficiency of service time between three fast food restaurants. The use of Takt time as a lean metrics used here

by observing actual available time/day for each restaurant. It is shown that Takt time are often used effectively to measure the level of efficiency of the services provided. It measures the relative efficiency and identifies bottlenecks among different entities providing the same services.

Nicola Burgess and Zoe Radnor(2011) a study was conducted relating to how Lean is implemented in English hospitals and it has been find out that Lean implementation continues to be widespread in English hospital trusts hospital trust managers are implementing Lean in different ways ranging from a tentative exploration in the form of learning from others and English hospital managers increasingly enhance and elevate their Lean implementation approaches in line with organisation-wide programmes and to the organisation's strategy. The implementation tends to be isolated rather than system-wide. This act as a guideline to how lean is implemented in English hospitals.

Beata Kollberg and Jens J. Dahlgaard and Per-Olaf Brehmer (2007) performance measuring system called "the flow model" is meant to measure changes towards lean thinking in health care services. lean thinking is applicable in health care settings, and that the flow model is a suitable tool for following up these initiatives. The flow model needs to be balanced with other measurements in order to receive a complete picture of lean performance .The model act as a guide for future mangers for understanding the change and process taking place in organisations as they lean towards sustainable practises.

Shradha Gupta, Monica Sharma and Vijaya Sunder M.(2015) studied concerning the importance of Lean methodology and its implications and application in the service industry right from its initiation in 1990s till date. It's been instructed that Lean tools and practices need to be tailored for the service industry. The main challenge with services is to manage the intangibility of waste arising because of the issue to spot it and therefore the Presence of the customer as co-producer. Another challenge to applying Lean in the service industry is the lack of awareness about implementation in service organisation. Using lean tools like VSM, Standardisation, and visual management, one will determine and avoid the causes that ultimately makes improved service quality and customer experience.

Wael Hadid and S. Afshin Mansouri (2013) during this study has developed a abstract framework that primarily provides insights for managers of service organizations to embark on a successful lean effort. Study identifies a comprehensive set of lean technical practices, lean supportive practices, inhibitors and expected outcome of

lean service. Expected relationships among those constructs are established by developing an abstract framework with many propositions.

### III. FINDINGS AND SUGGESTIONS

- Lean manufacturing in service sector should always focus on customer satisfaction and the Lean tools that are carried out must be cost effective
- Lean will facilitate to optimise all service delivery processes by targeting wastes and either removing them completely or move to a more effective state as a part of journey for continuous improvement.
- Identifying and eliminating of non-value adding activities are done in three stages they are waste identification practices, here tools like value stream mapping (VSM) has been used to finding out waste in process, waste elimination contemporary practices which consist of practices neither identify nor eliminate waste but they still contribute to the process
- A manager's focal plane should be the value creating processes, rather than organisations and assets this can be achieved by implementing lean thinking.
- The lean service unlike from the manufacturing area, strongly depends on human circumstances which is responsible for the prospection, execution and delivery of service to the customer, who expects service with high quality.
- Lean is applied to reduce the waiting time in hospital industry. They have rules and procedures specific to dissimilar types of patients and procedures, such as for first aid, surgery, tomography, X-ray.

### IV. CONCLUSION

The business environment is changing at a blistering pace, Services now constitute the majority employer and source of income for developed economies. The application of lean tools to the pure service environment is still emergent. Due to diversity of service sector, the principles of operation management and market practices are difficult to be defined in service companies. Some areas within the service sector that have mostly applied lean principles are health, finance sector, banks and insurance. The health sector principally with hospitals, is the area where they have largely applied lean principles. By analysing the results, it can be said that lean does not have a single model of tools or practices and standards for services. It can be noticed that each author uses a "mix" of tools and practices that in their opinion best serves in an operation, this is, a collection of the best practices applied to specific needs of a company and its line of services. Like any change process, the applications of

lean in services additionally suffer high resistance to their application.

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