

A Case study of lean manufacturing practices in Indian industry**Dr. Vinay Chandra Jha^{1*}, Mr. Shailesh Singh Thakur²**¹Professor Kalinga University, Naya Raipur² Assistant Professor of Mechanical Engineering, Kalinga University, Naya Raipur

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ABSTRACT

Now –a –days into day competitive world each and every manufacturing industries want to develop their industries by using different kind of approaches, method, by using standard type of machines and many more. However these methods and approaches may help them to develop their industries but may be this development is not for long time or consistent. Therefore there is a need to find a method or approach for consistency which is called Lean manufacturing as this method is also used by many industries not only in developed country but also in that country which tend to development. Lean manufacturing is basically an approach or we can say method also whose main function is to eliminate non- value added activities along with waste in all the process, as its main function is not to reduce the cost of productivity but also to increase value-added and eliminate essential support. The main objective of this paper is to describe the outline of Lean manufacturing and introduce their technique which helps the industries to develop and maintain consistency in their development

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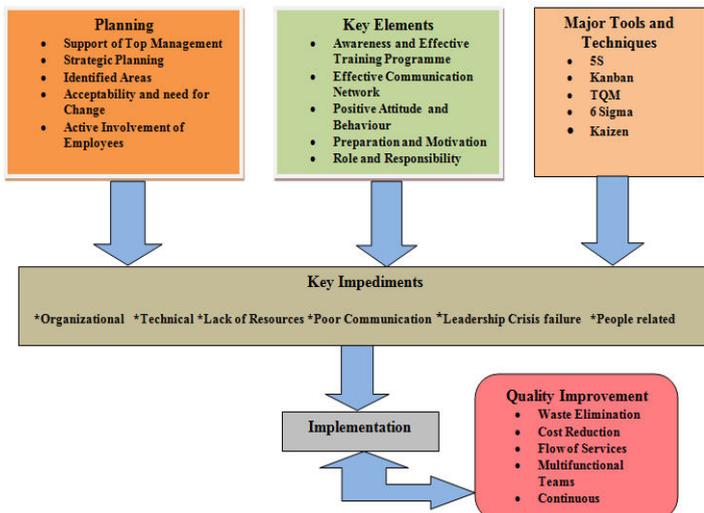
KEYWORDS: Lean, Waste, Production, Cost, Improvement, Industry, Automobile.

Manufacturing, Value added.

The following models are proposed for developing Lean Manufacturing Practices in Indian Automobile Industry with special reference to selected organizations of Faridabad region locating in NCR Delhi. These are being suggested only and may have certain practical limitations, but in due course of time, this can be modified as per the requirements of the industry

PROPOSED MODEL 1

Figure 1
Effective Lean Manufacturing Practices



the first and foremost important step in achieving the optimum benefits by implementing LMS. Support of top level management play a very vital role in planning strategic policies and identifying the areas where application of appropriate Lean tools and techniques could lead to a phenomenal growth of the organizations. At the same time it is also very necessary that the all the employees and other stakeholders should have willingness for change and actively contribute their assigned role and responsibility.

Change needs to be communicated to the rest of the organization. It is

responsibility of the management to ensure that employees not only see it, but also understand it. It is not enough to just change – if employees don't understand it, they will not know how to emulate it. There should be awareness among employees and other stakeholders about LMS. Awareness Training and Education Programme can be designed to introduce the concepts of LMS. Training is invaluable tools for developing Lean Manufacturing Practices organizations communicate the importance of Training and Education Programmes. **The implementation processes are enhanced by the Key success elements and identified as - human resource practices, management style, organizational strategic vision, organizational culture and external partnerships.**

Lean manufacturing is implemented successfully by communication aspect. Everyone needs to be aware and understand the concept of lean and the process of implementation. The

communication process plays a vital role in ensuring the successful implementation of leanness. The management should understand and emphasize the importance of communication to successfully implement lean practice in their respective organizations. Management as well all the employees of the organizations should have a positive attitude and behavior towards application, follow-up and outcome of LMS. It is a very stimulating stage for the organizations to select appropriate quality improvement tools and techniques for effective implementation of LMS and to identify and overcome any barrier that may hamper the process of successful lean implementation. Once the implementation begins smoothly, the organizations can achieve their set objectives by reducing their cost and elimination of waste. This may enhance scope for continuous quality improvement and flow of services can be regulated accordingly.

PROPOSED MODEL 2

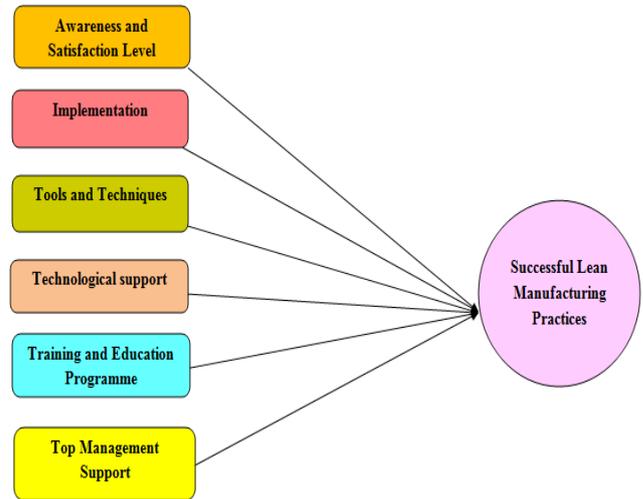


Figure 2
Key Factors Influencing Lean Manufacturing Practices

SOURCE: MODEL DEVELOPED ON THE BASIS OF FINDINGS AND REVIEW OF LITERATURE

The second proposed model highlights factors that influence Lean Manufacturing Practices in the selected organizations. The present study revealed that these factors are interlinked as well as independent in nature. Out of these six factors, the most

prominent factor is of Awareness and Satisfaction Level. Employees should be familiar with Lean quality principles and be adept at employing the tools necessary for ensuring quality. Undoubtedly, lean improves satisfaction level of employees. work environment is stabilized by the implementation of lean and may result into substantial performance and quality improvement. The implementation of Lean Design & Manufacturing techniques needs that all the wastes are identified and eliminated from the systems.

Lean tools and techniques may help to eliminate operational variations in the process. Technological support like as Robots can enhance a lean manufacturing environment. Speed and accuracy is offered by Robots that can't be achieved with human labor. IT can help Automobile industry through automation and by increasing the speed with which information is accessed and processed. Training program should become an important vehicle for communicating lean values and

principles as well as a means for providing employees with requisite new job skills. Training of employees via eLearning may be an effective way to build awareness and understanding across a broad base. Most importantly, it can serve as a vehicle for rapid change within the organization. Support of management, a defined plan, coordination of resources, and robust support systems are needed to adopt lean manufacturing which is a managed process to assure transformation. It is quite essential to achieve long term success in pursuing lean as a strategic initiative.

PROPOSED MODEL 3

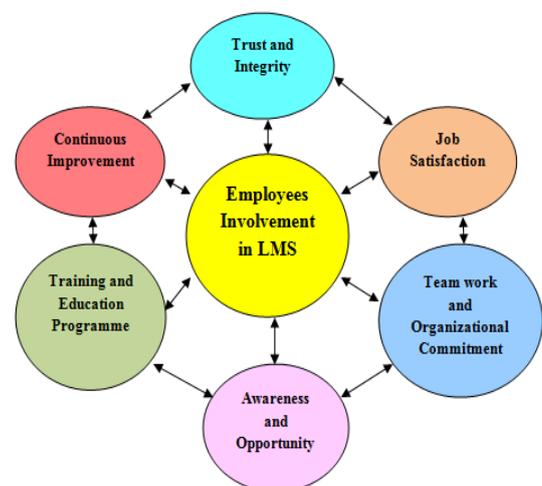


Figure 3
Ensuring Employees Involvement

**SOURCE: MODEL DEVELOPED
ON THE BASIS OF FINDINGS AND
REVIEW OF LITERATURE**

The third model elucidates employees' involvement in making Lean Manufacturing Practices successful ones. Lean is a commitment to achieve a totally waste-free operation. Hence, it is very obvious that it does not like to waste human labor, potentials, skills and knowledge. By ensuring a high level of employee involvement, the selected organization can Help their employees to reduce mistakes and can enriches their overall work experience. Involvement of planning and implementations are essential

Employees should have trust, loyalty and integrity towards their respective organizations. They should have a sense of job satisfaction so that they can take their assigned job as a new challenge and keep enjoying their work. The basic elements of motivation are Challenge, achievement, recognition,

responsibility and advancement. All of these elements can be united in the design of a successful professional career. Opportunity should be given to Employees not material rewards.

To train, challenge and promote, The organizations should have a faith in their ability. The employee should have a faith that the company values them. Lean is all about team work so employees should ensure that team spirit and organizational commitment is a key factor in achieving success of LMS. One of the most powerful fundamental acts are to encourage personal growth which the organizations can follow easily. It will help not only the lean implementations, but also it will elevate the passion and loyalty of the employees to the organizations. The employees have not to just understand lean, but also to believe in it. This is the need of the organizations.

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