

Need of Lean Six Sigma in Indian Manufacturing Industries

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ABSTRACT

Improving the quality of the product and reducing the defect have become the pre-requirement for the industries to survive in the market. Lean system tries to reduce the all the activities which do not add value to the product and six sigma tries to reduce the defects to minimum possible level. Lean six sigma is hybrid system of both lean and six sigma; the purpose of which is to reduce the cost and defect so that industries can harness more and more profits.

Keywords: Competition, Lean System, Six Sigma.

I. INTRODUCTION

Lean system reduces all non-value added activities like overproduction, transportation, motion, inventory etc. Six sigma tries to reduce the variations and defects to minimum possible level. Today, the customers have abundant of alternatives to buy any product. It is necessary for the industries to have state of art facilities like robotics, automation, Computer Numerical Control (CNC) machines, rapid prototyping, 3D printing etc. Achanga et. al. (2006), the need of implementing lean manufacturing and benefits that the companies will get is analyzed by various authors. Vijaykumar and Robinson (2016), described major actions taken by the company to implement lean thinking to improve its efficiency and effectiveness

II. LITERATURE REVIEW

Various researchers have worked to point out various types of wastages and issues to implement the lean manufacturing systems in MSME. Lean tools like kaizen, JIT, VSM, 5S, SQC, preventive maintenance, total employee involvement, and SMED were used to find and abolish the wastages. Lean focuses on eliminating all those activities which do not participate in enhancing value of the product. Kulhang, Hempten, Sihn and Deuse (2013), Continuous improvement has become the necessity for each and every industry.

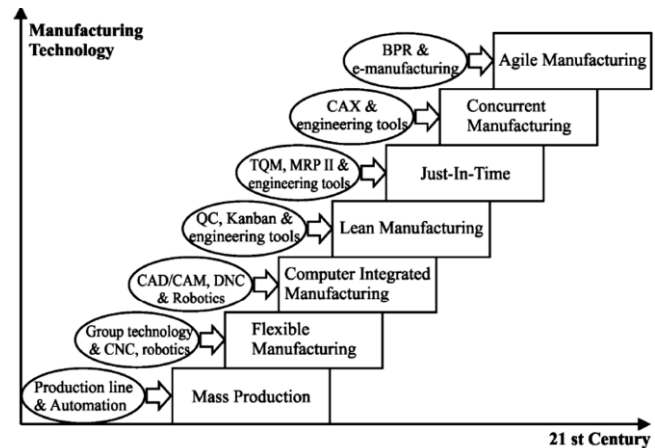


Figure 1. Development in manufacturing technology [Cheng and Bateman; 2008]

Behara et al. (1995), explained six sigma as The rating that signifies “best in class”, with only 3.4 defects per million units or operations. Bendell (2006), a strategic, company-wide, approach .focusing on variation reduction, projects have the potential of simultaneously reducing cost and increasing customer satisfaction. Black and Revere (2006), A quality movement, a methodology, and a measurement. Kwak and Anbari (2006), a business strategy used to improve business profitability, to improve the effectiveness and efficiency of all operations to meet or exceed customer needs and expectations.

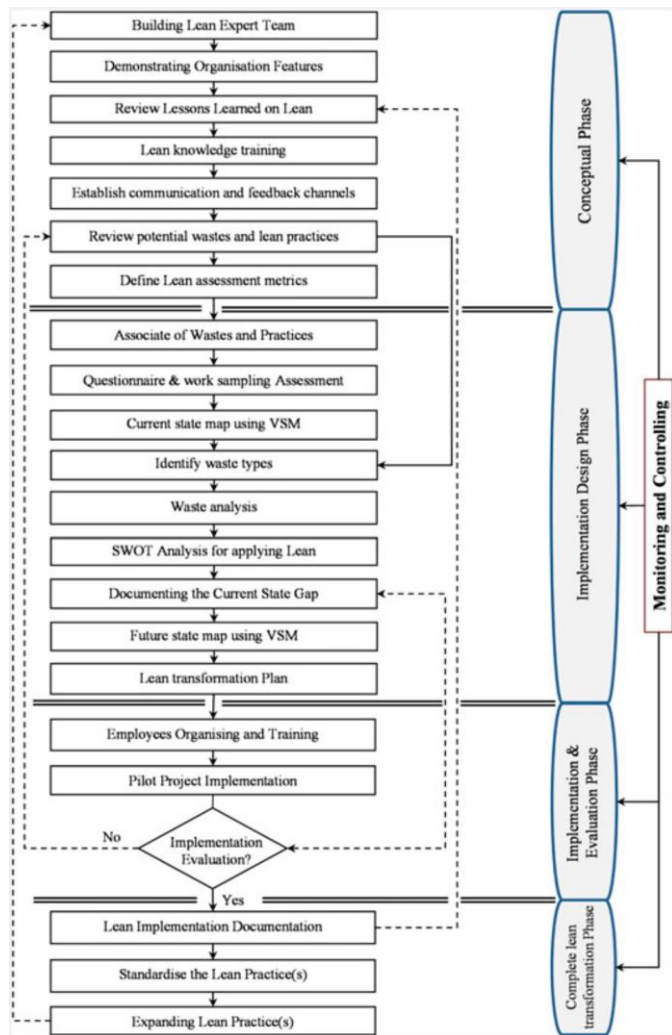


Figure 2. A framework for implementation of lean manufacturing (Mostafa, Dumrak and Soltan, 2013)

III. CONCLUSION

It has been seen that successful implementation of lean six sigma results in improved employee morale, better customer satisfaction, increased productivity, increased sales, better return on investment, increased quality of products, reduced scrap, reduced defects etc. Management and employees should take initiatives to implement the concept of lean six sigma so that they can harness more and more benefits.

IV. REFERENCES

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