

SPECIAL REPORT ON EVALUATION OF LEAN PRINCIPLES AND APPLICATIONS IN MANUFACTURING INDUSTRY

GIRISH DESHMUKH & C R PATIL

Department of Mechanical Engineering, PRMIT&R, SGBAU, India

ABSTRACT

Lean manufacturing has become an important avenue for both academics and practitioners in recent times many organisations around the world have attempted to implement it but the lack of clear understanding of lean performance and its measurements will contribute to the failure of the lean practice. There are many papers , articles and reports that address lean principles and tools but few studies are focussed on evaluation of lean. Manufacturing companies worldwide have been replacing traditional mass-production practices by lean initiatives. This translation process is progressive and may vary depending on several factors. Hence, it could be expected that the degree of adoption of the lean practices could vary significantly among industries, The literature studies showed lean manufacturing started at Toyota car manufacturing plant, Japan, which is known as Toyota Production System (TPS).The main pillars in TPS are Just in time and automation which main objective is to identify and eliminate waste in an organization. Lean manufacturing can be applied successfully in all industries providing a full understanding on lean ingredients i.e. concept, principles and practices.

There are numerous practices being highlighted by academicians and practitioners which are compulsory to be implemented in order to gain full benefits of lean. As small and medium enterprises (SMEs) are resources constraints, facing difficulties to adopt all lean principles this module examines the principles, techniques, key tools of “Lean” and how they might apply in a variety of processes and sectors. The strategic importance of creating “lean enterprise” is explored as well as the challenges associated with achieving and sustaining this. The module also provides scope for participants to explore how they might appropriately apply Lean in their own organizations

The purpose of this paper is to explore the implementation performance of lean principles in Indian manufacturing, the paper developed a survey in the New Mumbai Metropolitan Area, which considered industries of different sizes, from different industrial segments

KEYWORDS: Lean Performance, Manufacturing System, Lean Practices, Continuous Improvement