



LEAN MANUFACTURING, ITS MISCONCEPTIONS AND HOW TO OVERCOME THEM TOWARDS A SUCCESSFUL LEAN JOURNEY

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Lean manufacturing or lean production, often simply "lean", is a systematic method for waste minimization ("Muda") within a manufacturing system without sacrificing productivity. Lean also takes into account waste created through overburden ("Muri") and waste created through unevenness in work loads ("Mura"). Waste in a process simply defines as any activity that does not add value. One could ask the question value for whom? In Lean, all value is defined from the vantage point of the customer. Value is any activity that transforms the product in a way the customer is willing to pay for. By eliminating the 7 wastes in Lean which is overproduction, material handling, waiting, defects (rejects) or rework, inventory, over processing, unnecessary motion of people, the non value adding activities can be reduced thus reducing the lead time which can be invested back in the business. The customer satisfaction comes down to mainly three main areas; quality, cost and delivery. Several tools are being used to achieve this; tools such as Poka Yoke and Kaizen are very much focused on ensuring that service and product quality are perfect. Just in Time is about providing flow using kanban systems to ensure that the customer gets what they want when they want it. Standardized working through 5S and keep machines reliable through Total Productivity Management (TPM) to help achieve this. Cost is thereby reduced by removing all non-value adding steps. Lean principles are elegant in simplicity, yet complex when considering all the aspects of the system of production. However, in today's context, applying lean in a manufacturing / service organization simply means teaching lean tools developed by Toyota to its employees and letting them loose to implement them in their own area of work. What we are forgetting is that Toyota has not developed these tools as universal problem solving tools but to solve their own problems. Copying what you see in another plant is doomed to failure, unless the conditions in your plant exactly matches the plant that you are copying. If we dismantle a car engine in order to learn how it works, certainly will not make us a motorcar engine designer, unless we learn the laws of physics, the design criteria, the design principles and other basic theories required to make you a design engineer. World is trying to copy Toyota for two decades or so, and has not yet produced a single company, outside Japan who could keep adapting and improving its quality and cost competitiveness as systematically, as effectively, and as continuously as Toyota. This paper provides an insight to the misconceptions of the above thinking which had led to lean implementation failures and recommend ways to rectify the situation to embark on a successful lean journey for any organization.

Keywords: *lean manufacturing, misconceptions, Total Productivity Management, 5S*