Mapping Transformational Lean Maturity Model for Discrete Part Industries

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ABSTRACT

The aim of this research is to determine the current and desired level of lean maturity level in the local manufacturing industries of Pakistan. This can certainly assist the local industry of Pakistan to optimize their processes, shrink wastes and increase the productivity by using this method. The developed lean assessment model evaluates the lean manufacturing and measure the leanness of the industries in terms of lean maturity model. It comprises of three categories. The assessment model consists of twelve factors on which the lean manufacturing is assessed. These are: leadership, communication, trainings, inventory, Quality, continuous improvement, production processes, lean tools, maintenance, cost, on-time-delivery and energy-efficient. A series of stages involved to develop the lean assessment model which is named as modified LESAT for discrete parts industry. These are subdivided into four main phases; detailed literature review, development of lean assessment, data analysis and AS-IS and TO-BE analysis with gap identification. Current maturity level of the industries of Pakistan comes out to be 3.00, that worker and all the staff has knowledge about lean. The future state comes out to 4.00 that Lean will be implemented to greater extent and industry is striving to achieve more via continuous improvement. The gaps identified in many industries are weak in terms of energy efficient, inventory, Quality, Training, Production Processes and lean tools. The Pakistani industries must work and improve themselves in view of factors identified, this will aid in achieving more productivity, better performance and excellent quality and to survive in market.

Keywords: lean manufacturing, maturity levels, lean assessment, self-assessment tool, lean perspectives and factors