Lean Impact Analysis Assessment Models: Development of a Lean Measurement Structural Model

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Abstract : The paper is aimed at developing a model to measure the impact of Lean manufacturing deployment on organizational performance. The model will help industry practitioners to assess the impact of implementing Lean constructs on organizational performance. It will also harmonize the measurement models of Lean performance with the house of Lean that seems to have become the industry standard. The sheer number of measurement models for impact assessment of Lean implementation makes it difficult for new adopters to select an appropriate assessment model or deployment methodology. A literature review is conducted to classify the Lean performance model. Pareto analysis is used to select the Lean constructs for the development of the model. The model is further formalized through the use of Structural Equation Modeling (SEM) in defining the underlying latent structure of a Lean system. An impact assessment measurement model developed can be used to measure Lean performance and can be adopted by different industries.