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## **Model of integration of Lean tools and knowledge management to improve the production process in a metal-mechanic company (Conference Paper)**

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### **Abstract [View references \(10\)](#)**

In the new context of globalization, large manufacturing companies are forced to improve their production processes, so they need to design and apply methodologies that align with this trend. However, these practices are not applied in SMEs with similar problems, which mainly influence the timely delivery of their products and especially in the metal mechanic sector. Therefore, this article proposes the design of an integration model of Lean Tools and Knowledge Management, whose methodology is composed of 4 phases; in phase 0, the awareness and analysis of the current situation is carried out, in the first phase knowledge management is applied (design, development, implementation and sustainability), in phase 2, the Lean tools are implemented, initiating the application of the 5's, followed by standardized work and then by Total Productive Maintenance; finally in phase 3, the analysis and control of the results obtained. The model was validated in a metal-mechanic SME in Peru where an increase in production of 20% was obtained, an improvement of 30% in the training and training of the person and a 14% improvement in the overall efficiency of the team. © IEOM Society International.

### **Author keywords**

Knowledge management Lean manufacturing Metal-mechanic Small and medium enterprises

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