

# Identification of specific metrics for sustainable lean manufacturing in the automobile industries

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## **Abstract**

**Purpose:** This study explains the importance of performance measures and identifies the specific performance measures of sustainable lean manufacturing (SLM) for automobile industries. Awareness towards sustainability and continuous improvement approaches demand monitoring of the sustainable lean impact on organization/industry, and hence, identifying the specific performance metrics is of peak importance. **Design/methodology/approach:** In this study, specific metrics for social, economic and environmental performance are identified from a systematic literature review of 82 significantly related journal articles. The importance of the identified metrics is assessed with the help of questionnaire responses from a group of industrial experts. **Findings:** Performance indicators are statistically analyzed category wise and assessed. The key metrics are summarized based on the survey data followed by a discussion with industrial experts. From this study, performance measures have been identified and validated through hypothesis testing for Indian automobile industries. Certification of IATF16949 implementation found an important vertical for SLM implementation. In this study, SLM implementation initiatives are discussed, and reward scheme for outstanding performers are identified as important initiatives are followed by small improvement culture. **Practical implications:** The proposed discussion of this study is useful for industrialist and researchers, as SLM performance measures are well explained for Indian automobile industries. In this study, future research direction is also explained related to other industries. These summarized performance measures will help to maintain SLM in industries. **Originality/value:** This paper presents the original literature review based on the study of SLM, as no extensive study is available where SLM performance measure explained for automobile industries. Key initiatives and vertical of SLM are well explained for Indian automobile industries. This study proposed a complete framework for SLM implementation considering competitive manufacturing targets. © 2021, Emerald Publishing Limited.

## **Author keywords**

Economics metrics; Management review; Performance indicators; Sustainable lean manufacturing