

**Methodology for assessing the validity
of Shopfloor Management (SFM) implementations in medium-sized
manufacturing enterprises in Greater Poland**

Summary

The problem considered in this work is the need to assess the validity of implementing the Shopfloor Management (SFM) method in medium-sized production enterprises in the metal industry. SFM is a Lean Production (LP) tool related to Visual Management (VM). The use of SFM allows for effective verification and presentation of production results, enabling better cooperation between production units and production supervision in order to eliminate errors and increase process efficiency. Based on a review of the subject literature, the SFM method was shown to be highly effective and, at the same time, to have a low number of applications in Polish business practice. The publications do not provide guidance on when implementing SFM is appropriate.

On this basis, the main objective of the dissertation was to develop a methodology for assessing the validity of SFM implementations in medium-sized manufacturing enterprises in Greater Poland region.

The following research methods were employed in the study:

- expert research using the individual structured interview technique - *in order to initially identify the factors that justify the implementation of the SFM method,*
- survey research, using an original questionnaire on a representative research sample - *in order to specify and organize the factors of the validity of implementing the SFM,*
- system analysis - *to recognize the relationships between the factors of the validity of SFM implementation and to indicate active and critical factors,*
- expert opinions - *to objectify the prepared map of the intensity of impact of factors regarding the validity of implementing the SFM method,*
- substantive expert evaluation and statistical analysis of the compliance of their assessments - *in order to verify the correctness of the author's methodology for assessing the validity of the implementation of the SFM method.*

As a result of the PhD thesis, a methodology was prepared in the form of an algorithm for assessing the validity of implementing SFM (MOZ-SFM) in medium-sized enterprises in the metal industry in Greater Poland, as well as checklists regarding the fulfillment of the implementation requirements.

The effectiveness of MOZ-SFM has been confirmed by use in real conditions.

This doctoral dissertation ends with conclusions confirming the implementation of the research tasks and the purpose of the work, as well as proposals for directions for further research.