International Journal of Management Science and Engineering Management ›
Volume 13, 2018 - Issue 1

676 Views | 22 CrossRef citations to date | 0 Altmetric

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Lean manufacturing practices, ISO 14001, and environmental performance in Malaysian automotive suppliers

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Pages 45-53 | Received 16 Nov 2015, Accepted 26 Jan 2017, Published online: 28 Feb 2017

Cite this article https://doi.org/10.1080/17509653.2017.1288587 Check for updates

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Abstract

Lean manufacturing practices (LMPs) focus on the systematic elimination of waste and non-value added activity from the production process in order improve environmental performance (EP). Meanwhile, ISO 14001 is an international standard that assists managers to reduce environmental impact and to expand business. The aim of this study is to examine the relationship between LMP, ISO 14001, and EP for Malaysian automotive suppliers. In this study, 275 sets of questionnaires were successfully collected, being a 68.8% response rate. The structural equation modelling technique was utilized to perform the statistical analysis of the data survey. Reliability analysis, exploratory factor analysis, and confirmatory factor analysis were carried out. The results showed that the impact of LMP implementation on EP increases with the

mediation of ISO 14001 in Malaysian automotive suppliers. Thus, this research, which has undergone detailed methodological analysis, contributes to the limited existing literature on the relationship between LMP, ISO 14001, and EP in Malaysian automotive suppliers.

Keywords:

Lean manufacturing practices | ISO 14001 | environmental performance | structural equation modelling | automotive industry

JEL classification:

M4 | L6

Acknowledgements

The researchers would like to acknowledge the Ministry of Higher Education (MOHE) for the financial funding of this research through the Fundamental Research Grant Scheme (FRGS), the Research Management Centre (RMC), and a Universiti Pendidikan Sultan Idris (UPSI) Research University Grant (RUG).

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