

Impact of quality and lean manufacturing in automotive parts supplier's competitiveness

Luz María Valdez de la Rosa
Engineering Management Program
Universidad de Monterrey
Nuevo León, México
luz.valdez@udem.edu

Luis Alberto Villarreal Villarreal
Center for Business Development and Postgraduate
Universidad Autónoma de Nuevo León
Nuevo León, México
luis.villarrealv@uanl.mx

Abstract

The manufacturing sector is a driver of the global economy and automotive industry is one of the most important manufacturing industry because contributes in high level to the competitiveness of the nations. The success in the automotive industry depends on the performance of a company's suppliers. Supported in an exhausted literature review a part supplier's competitiveness measurement instrument was defined and used to conduct a research study with Tier1 auto part suppliers of the State of Nuevo León, México. By the use of statistics methods as Cronbach's alpha and linear regression, the present research finds the quality and lean manufacturing with positive impact in the manufacturing competitiveness of part suppliers of automotive industry. This study presents the analysis and results of this factors and its discussion.

Keywords

Quality, lean manufacturing, competitiveness, auto parts suppliers, automotive industry

Biographies

Luz María Valdez de la Rosa is Academic Chair of B.S. in Engineering Management for the University of Monterrey, in the state of Nuevo Leon, Mexico. She earned B.S. in Industrial Engineering and Systems and Masters in Quality Management from University of Monterrey, Mexico, and she is currently studying the Ph. D. in Administration Sciences from the Autonomous University of the State of Nuevo Leon, Mexico. She has participated as consultant for the manufacturing and services in the quality field, and participated as ASQ member, IISE member.

Luis Alberto Villarreal Villarreal is a professor at the Center for Business Development and Postgraduate Studies at the Autonomous University of Nuevo Leon (UANL). He earned B.S. in Public Accounting, a master's degree in Public Administration, and a PhD in Administration Sciences from the Autonomous University of Nuevo Leon, Mexico. He has been a professor at UANL for 20 years. His fields of research are public administration and entrepreneurial management. He is coauthor of publications and texts in the academic field. He has deep experience in finance and public administration and has held several positions in public administration in the state of Nuevo Leon.