

# **Organizational Tools and Cultural Change in the Success of Lean Transformations: Taking Stock and Looking ahead to Unravel the Right Sequence and Rhythm**

**Antonio Sartal**

Faculdade de Ciencias e Tecnologia, Universidade Nova de Lisboa,  
Campus Universitario, Caparica 2829-516, Portugal

[antoniosartal@uvigo.es](mailto:antoniosartal@uvigo.es)

**Xosé H. Vázquez**

School of Economics and Business  
Campus das Lagoas/Marcosende

[xhvv@uvigo.es](mailto:xhvv@uvigo.es)

## **Abstract**

The success rate of LM in non-Japanese firms is extremely low. Although many different reasons have been cited, two of them reflect a certain consensus. On the one hand, there is no agreement on which sequence to follow regarding organizational tools and cultural change during the transformation processes. On the other hand, there are also different views on what the correct rhythm should be. This article synthesizes and compares empirically the different theoretical perspectives on both issues and tests them in a wide dataset of 1,692 North American manufacturing firms. Results suggest that cultural change totally mediates the relation between the deployment of tools and enhanced plant performance. While tools play therefore an essential role as triggers for stimulating lean transformations, our evidence proves quantitatively that they will only improve performance through the cultural change they can potentially provide. These findings not only allow for the integration of Western and Japanese approaches, but also suggest a tentative sequence and rhythm in the deployment of lean tools and values.

## **Keywords**

Lean transformations, lean values, lean tools, moderation and mediation, synthesis research

## **Biography / Biographies**

**Antonio Sartal** is currently a Postdoc researcher in the Department of Mechanical and Industrial Engineering (DEMI) at New University of Lisbon (Portugal) and the University of Vigo (Spain). He managed the Department of R&D of a food multinational for the past ten years, until he recently joined a research team working on technology management and organizational innovation. His research interests include the intersection of lean thinking, innovation management, and information technologies. He has published has published 13 articles in JCR international journals such as *Supply Chain Management: An International Journal*, *Computer and Operations Research* and *IEEE Transactions On Engineering Management*, among others.

**Xosé H. Vázquez** received the Ph.D. degree in business organization from the University of Vigo, Spain, in 2002. He is currently full professor in Department of Business and Administration at the University of Vigo, Spain. His research interests include the innovation process, from the development of new products to their manufacturing and logistics. His work has found outlets like the *Cambridge Journal of Economics*, *Computers and Operations Research*, *Harvard Business Review*, *Long Range Planning*, *Management and Organization Review*, *Industrial and Corporate Change*, *Industrial Marketing Management*, *Organization Science*, *Organization Studies*, *Research Policy*, and *Technology Analysis and Strategic Management*.