Guest editorial

To cite this article: (2018) Guest editorial, Quality Engineering, 30:3, 357-358, DOI: 10.1080/08982112.2018.1475809

To link to this article: https://doi.org/10.1080/08982112.2018.1475809

Published online: 13 Sep 2018.

Submit your article to this journal

Article views: 208

View related articles

View Crossmark data
This special section of Quality Engineering presents papers dedicated to the latest developments in the discipline of Lean Six Sigma. The Lean Six Sigma strategy is a methodology for achieving operational, process, and service excellence where the field has been around for the past 30 years. Initially, Lean Six Sigma (LSS) was created and adopted by and for the manufacturing industry, the discipline has since spread across many domains: service, manufacturing, profit driven and publicly oriented. The variety of applications has served many field of endeavor with more discovery by professionals, the academy, and community dedicated to the basic beliefs and theory of quality.

In this issue, you will read about a variety of applications and the latest developments of LSS, as a methodology, with regard to operational excellence. Lean Six Sigma Masitelli et al. (2004) note that operational excellence plays a vital role in nearly every industry. As this concept is broad-based and widespread, operational excellence has aspects, based upon application of LSS principles to what ever endeavor, almost intangible. Systematically, the factors involved in analysis may first appear very large in scale, capability, or scope, to use a common definition. The approach to the operations research in this special section share the approach of cases. The case study research methodology, as described by Yin (2009) as an empirical study of contemporary issues within context. The empirical approach relies upon experience to inform this type of study that is utilized in research and subsequent practice. This research methodology is common to the study of LSS where both academic and practitioner points of view enrich the advancement of LSS theories in this issue have been applied range of industries including healthcare, gas production, and automotive manufacturing, to name a few.

There have been areas of increased interest in some of these industry sectors with regard to LSS application. For instance, Furterer’s study of application the LSS project management methodology, DMAIC, is a case of application of LSS to improve patient care, while supporting the patient’s cost of hospital stay. This focus on the patient, or more broadly the customer perspective, is crucial in orienting LSS research and outcomes. Another characteristic is the use of management strategy in LSS research. The process approach, utilized by Alsyouf, Kumar, Al-Ashi, and Al-Hammadi in their study, improved airline organizational performance with regard to customer's and their personal belongings. The ability to measure management performance is part of an operational excellence model. This has extended to measuring performance of the quality of LSS adoption. Stankalla, Koval, and Chromjakova study critical factors for successful adoption in small and medium enterprises, an organizational level crucial to general industry success but often resource constrained in meeting business goals. In Prashar’s study, we further learn about SME’s adoption of LSS and defines how SME’s can excel through improvements in customer fulfillment. The ability to explicitly design and plan for successful LSS organizational adoption is the focus of Li, Laux, and Antony in an organizational study out of China, a country quickly adopting LSS practices, using design for Six Sigma, an approach for new processes or outcomes. New applications of LSS research are constantly being explored: Deithorn and Kovach describe how short term billing goals for excellence may be met with a vigorous approach of DMAIC, applied to gas and oil industry. Innovation in LSS methods is also part of this special section. Through the lens of multiple case studies, Zwetsloot and accompanying authors study how data sciences, the interdisciplinary approaches to utilizing the data revolution at hand, to offer new perspectives for developing expertise among practitioners to take advantage of the 4th Industrial Revolution. Finally, in Gomes Leite, Estombelo Montesco, and Sakuraba, we see a LSS solutions in a heavily capitalized environment, with a focus on low-cost solutions to causes in a distribution business.

There are many other aspects with regard to operational excellence that are in this special
These are a sampling of Lean Six Sigma and operational excellence. We hope that you enjoy this issue and look forward to more quality work from researchers and practitioners to the journal. Finally, we like to thank the reviewers for this issue and all the time and effort involved and hope you enjoy.

Chad Laux, Ph.D.
Computer & Information Technology
Purdue University, West Lafayette, Indiana

Jiju Antony, Ph.D.
Business Management
Heriot-Watt University, Edinburgh, Scotland

References