

Lean Six Sigma in Higher Education

Praise for Lean Six Sigma in Higher Education

'Higher Education institutions create true value when knowledge is being developed and transferred. Today's Higher Education institutions however comprise of many processes that are supportive to these purposes, but in itself do not create true value. This book is an excellent guide for managers and professionals in the Higher Education sector looking for process or product optimization within their institutes. It guides in separating value adding from non-value adding or even wasteful activities, and provides practical aids and tools for process optimization in the Higher Education sector.'

– **Bart A. Lameijer**, Assistant Professor and Senior Consultant,
University of Amsterdam Business School, Netherlands

'The importance of a long term strategic improvement framework for Higher Education has never been more necessary than today. Many attempts have been made by external policy makers in government, or internally by career administrators. Most have failed miserably to make any improvement in efficiency or effectiveness over the past 30 years. Costs have gone up and Quality has come down. Professor Jiju Antony and his team have gone outside of Academia to study the use of principles, tools and techniques with a proven track record in Manufacturing, business and service organisations. It is shown without doubt that Lean Six Sigma in Higher Education is needed right now! The book breaks down many myths and misconceptions about Lean Six Sigma and I encourage all administrators, leaders and policy makers to give this book a chance and read it with an open mind. Lean Six Sigma is a game-changer for Higher Education...and it needs to be given an opportunity to show its power.'

–**John Dennis**, Chairman International Lean Six Sigma Institute, UK

'This is another piece of art for the entire Lean Six Sigma global community! Higher Education (HE) is definitely an area full of improvement opportunities and Lean Six Sigma can be a critical component to change this game. The Editor of this book has addressed this topic brilliantly by showcasing a collection of articles including a dedicated chapter on the tools and techniques of LSS relevant to Higher Education context. This is a must-read book not only for academic leaders in HE but also for all continuous improvement practitioners that aim to promote a positive impact in this area.'

–**Marcelo Machado Fernandes**, MF Operational Excellence, ASQ
Certified Master Black Belt, Minitab Certified Trainer, Brazil

Lean Six Sigma in Higher Education: A Practical Guide for Continuous Improvement Professionals in Higher Education

EDITED BY

PROF. JIJU ANTONY

Heriot-Watt University, UK



United Kingdom – North America – Japan – India – Malaysia – China

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INVESTOR IN PEOPLE

Dedicated to my wife Frenie Antony and my daughter Evelyn Antony

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List of Contributors

Dr Stephen Anthony	Heriot-Watt University, UK
Prof. Jiju Antony	Heriot-Watt University, UK
Ms Nimita Atal	Purdue University, USA
Dr Attracta Brennan	National University of Ireland, Ireland
Dr Elizabeth A. Cudney	Maryville University of Saint Louis, USA
Mrs Mary Dempsey	National University of Ireland, Ireland
Dr Sandy L. Furterer	University of Dayton, USA
Mr Joe Healy	University College Cork, Ireland
Dr Roger Hoerl	Union College, USA
Dr Chad Laux	Purdue University, USA
Dr Na Li	Purdue University, USA
Mr John McNulty	University College Cork, Ireland
Mr Tom Murphy	University College Cork, Ireland
Ms Helen O'Donovan	University College Cork, Ireland
Mr Ronan O'Dubhghaill	University College Cork, Ireland
Mr Seamus O'Reilly	University College Cork, Ireland
Dr Ronald Snee	Snee Associates, USA
Dr John Springer	Purdue University, USA
Prof. Vijaya Sunder M	Indian School of Business, India
Mr Scott P. Thomson	Heriot-Watt University, UK

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Preface

Businesses today are always on the lookout for ways to improve their bottom line by systematically eliminating waste from business processes as well as reducing unnecessary or undesirable variation in business processes which result in defects, errors or even failures leading to customer dissatisfaction. Lean Six Sigma (LSS) has become predominant in many fields. It is among the most common continuous improvement methodologies today. And while other industries, namely, manufacturing, service and some public healthcare services have adopted LSS to improve operations and focus on efficiency and effectiveness, Higher Education Institutions (HEIs) have largely been impervious to such continuous improvement efforts.

HEIs have been a cornerstone in educating society's leaders, an incubator for advanced technologies and an accelerator for economic development. The situation within the Higher Education (HE) sector is very similar to that of firms within the manufacturing and service industry – facing fierce competition, limited budget availability, government funding slashed, and students adopting a consumer approach to their learning. There are a few books on Lean in Higher Education, but the editor and contributors of this book would like to highlight the point to readers that both Lean and Six Sigma or even its integrated approach (Lean Six Sigma) can equally be applied to improve the efficiency and effectiveness of business processes in the HE sector. Moreover, only some problems can be tackled using the Lean approach in our view and hence the integrated approach can be more beneficial for tackling problems where variation is the primary issue (e.g. variation in turnaround times, variation in recruitment times of research staff for funded projects, etc.).

Higher education has become a competitive enterprise, with the characteristics of an organization that must compete for scarcity, as students replace funding from state resources. As universities compete for status and rank, the competitive nature can contribute toward a decline in the sense of academic mission, community and values. The ability to maintain the academy requires effort from a variety of resources, disciplines and ideas as the commercialization of higher education strains the social mission. LSS as a powerful Operational Excellence strategy is one contributing effort that can impact these trends of massification of the academy, and we hope the literature presented in this work will support a concerted effort to respond to the concern for quality in Higher Education.

This book is a collection of articles written by a number of contributors from three continents: Asia, Europe and North America. The book is a carefully edited

work by an academic and a practitioner of Operational Excellence based in the Higher Education sector. The book encompasses state-of-the-art literature review on LSS in HE sector, case studies of LSS in HE, tools of LSS which can be used in HE, challenges in the implementation of LSS in the HE setting, significance of Voice of the Customer, LSS Maturity Model for HE and emerging trends in the area. This book will benefit students, researchers, professional staff who would like to engage in process improvement projects in HE environments, and academics who would like to understand the concepts of Lean Six Sigma, as well as the challenges and barriers in the implementation and sustenance of this powerful Operational Excellence methodology. I firmly believe that the applications of LSS in HE will continue to grow over the years and this book is very timely. The book can be a great resource for training staff members in the HE sector or for self-study to understand the challenges in the implementation. Moreover, it provides the most powerful tools of LSS which can be used in Higher Education setting for problem-solving scenarios. Finally, I would like to thank all readers who are using this book for the LSS journey, and we wish the very best of luck with your endeavours.

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