# LEADING LEAN SIX SIGMA

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# Research on Leadership for Operational Excellence Deployment

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### ABOUT THE AUTHORS

Alessandro Laureani is an Operational Excellence leader, certified Lean Six Sigma Master Black Belt, Project Management Professional and Agile Practitioner, who has been active in the Lean Six Sigma field since 2005. He has led successful Operational Excellence programmes in large multinational corporations. He is also a keynote speaker and a published author in the field of Operational Excellence and continuous improvement. He earned a degree in Statistics from the University of Rome 'La Sapienza', an MBA from the UCD Michael Smurfit Graduate Business School in Dublin and a PhD from the University of Strathclyde in Glasgow. The research conducted for his PhD, on the topic of Leadership and Lean Six Sigma, forms the basis of this book.

Jiju Antony is recognized worldwide as a leader in Lean Six Sigma methodology for achieving and sustaining process excellence. He is a Professor of Quality Management and Director of Process Improvement at the School of Social Sciences at Heriot-Watt University, Edinburgh, Scotland. Professor Antony has been researching on the topic of Six Sigma and Lean Six Sigma since 2001 and published over 200 journal, conference and white papers as well as 4 books on these two topics alone with more than 23,000 citations H-index of 78, which is considered to be the highest in the world on the topic of Operational Excellence. He is the founder of the International Conference on Six Sigma and is also the founder of the International Conference on Lean Six Sigma for Higher Education. He is the Editor-in-Chief of the International Journal of Lean Six Sigma, Associate Editor of the Total Quality Management & Business Excellence journal and Associate Editor of the TQM Journal.

### PRFFACE

Operational Excellence (OPEX) is an important business strategy for many organizations, and over the last couple of decades Lean Six Sigma has become one of the most popular and proven business process improvement methodologies (Antony, Snee, & Hoerl, 2017).

The term 'Lean Six Sigma' was first introduced in the literature in 2000 (Timans, Antony, Ahaus, & Solingen, 2012) and since then has received increased interest and grown in popularity, both in small-sized and medium-sized manufacturing businesses (Kumar, Antony, Singh, Tiwari, & Perry, 2006) and in large organizations, such as Motorola, General Electric and Honeywell (Laureani & Antony, 2012; Timans et al., 2012).

Despite its success in some organizations, others are struggling to turn Lean Six Sigma into a success, citing a lack of leadership, changing business focus, internal resistance and availability of resources as the main impeding factors (Timans et al., 2012).

Brewer and Eighme (2005) mentioned committed leadership as a necessary ingredient, among others, for the successful deployment of Lean Six Sigma in organizations and Snee (2010) identified leadership as a much needed requirement for successful Lean Six Sigma deployment that is critical for sustained improvement.

However, in the vast Lean Six Sigma literature, studies examining the impact of leadership are lacking: a lot of the literature has focussed more on the technical side of Lean Six Sigma, on its tools and techniques, leaving leadership and the cultural impact aside.

Overall, the role of effective leadership in Lean Six Sigma deployment deserves further investigation; this book is the result of research conducted to investigate the impact of organizational leadership on Lean Six Sigma deployments and hopes to extend and refine our understanding of Lean Six Sigma and leadership, identifying the traits a leader needs to display to increase the chances of successful deployment.

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The book is organized into eight chapters (Table 1):

Table 1. Structure of the Book.

Chapter 1 Chapter 2	Provides an introduction to leadership and Lean Six Sigma Illustrates the most important leadership traits identified from the research as the most
Chapter 3	conducive to a successful Lean Six Sigma deployment Examines the role of the organization leader and her/his behaviours
Chapter 4	Outlines the importance of employees' engagement and how to get everyone involved in Lean Six Sigma deployment
Chapter 5	Discusses different stages of a deployment (launch, manage, sustain) and how leadership can help in each phase
Chapter 6	Provides a guide to strategy deployment, in particular the 'Hoshin Kanri' model, and its application in the Lean Six Sigma context
Chapter 7	Covers the integration of innovation, Agile and Lean Six Sigma and how leadership can facilitate these integrations
Chapter 8	Introduces the Leadership Dependency Model from the research and discusses some of the emerging Lean Six Sigma trends in the context of leadership

We hope this book, and the research it contains, will help in developing a better understanding of how different leadership traits impact Lean Six Sigma deployment and will help to assess the dependency on leadership when embarking on a Lean Six Sigma journey.

We also hope the book can be of assistance to anyone in a leadership position, about to embark on a Lean Six Sigma deployment or in the middle of it, showing what types of traits are needed to support such deployment in a practical way, based on the organization size and industry sector. The dependency model introduced should help organizations to self-assess their preparedness for Lean Six Sigma and act accordingly to close any gap.

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