

Preface

This is a book about the so-called Lean Thinking derived from the Toyota Production System. Nowadays many books and papers deal with the subject, especially books concerning the operative tools of the Toyota Production System. So how will this book try to bring more knowledge to its readers? The book presents a complete journey, top-down and bottom-up, for implementing Lean inside an organization with the scope of achieving economic and financial results. The title of this book, *From the Tools of the Toyota Production System to Lean Office*, indicates that the book intends to propose a complete pattern, starting from the strategic objectives to the production. The pattern includes service processes such as marketing, accounting, design and can be applied in service industry as well.

In this way, the book presents a model developed using an inductive approach based on multiple case studies. The author has taken into account more than 200 companies based in the European Union and Asia, many of which are clients of Chiarini & Associates. This latter is a consulting firm that provides Lean Six Sigma consultancy. Chiarini & Associates has managed projects for companies such as ABB, Barilla, Bulgari, Bridgestone, Continental, Donaldson, Ducati, Ferrari, Fiat Power Train, *Praxair*, Sitel, Technip, Tetrapak, Tyco, Usag Stanley, Vaillant and many others. Projects have also been managed for public administrations. The proposed model in this book has been compared with many practitioners' point of view. Besides it has been compared with papers from international peer-reviewed journals and conferences.

The first chapter is dedicated to the historical evolution of the Toyota Production System. The second chapter discusses the so-called seven wastes and the value-added concept. The strategic system *Hoshin Kanri* is explained in the fourth chapter as the real starting point of the Lean Organization. Hoshin Kanri is the expression of the thoughts of senior management and sets the precise direction for the Lean ship.

The strategic objectives deployed by the means of Hoshin Kanri are matched in the fourth chapter with the wastes found through the *value stream map*. After having mapped the processes and defined the strategic objectives, an organization can launch quick and intensive improvement projects called *Kaizen workshops*. The fifth chapter discusses how to manage these quick projects and their teams. *Kaizen*

teams in this chapter are compared to other kinds of teams such as Six Sigma teams, and the reader will understand why the roles and rules are very peculiar. Kaizen teams can use several tools inherited from the Toyota Production System. The sixth chapter takes into account the most important tools from the basic 5S, through *one-piece-flow*, *Kanban* and *SMED* to *TPM*. After dealing with the tools of the Toyota Production System, a case study applying some of the tools is presented. The famous Italian motorbike manufacturer *Ducati*, owned by *Volkswagen – Audi*, discloses how Lean tools are applied in its shop-floor through some examples.

The results achieved through Kaizen workshops can be measured day by day and managed by the introduced *visual control and management* system. The seventh chapter describes *lean metrics* as well as the accounting systems to measure economic and financial improvements. *Traditional accounting*, *activity-based costing* and *value stream accounting* are compared in order to understand which is better for the Lean Organization.

Last but not least the eighth chapter deals with *lean office* and a new tool for mapping transactional processes, the *Makigami*. Lean Office is the way to reduce wastes and consequently the lead time for processes such as marketing, engineering, accounting, quality management and supply chains as well as processes inside public administrations.¹

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