WCOM (World Class Operations Management)

Carlo Baroncelli · Noela Ballerio
Editors

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Why You Need More Than Lean

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Foreword

Why Do You Need More Than “Lean”

The title of the book represents the most frightening and dreadful question all authors of “Lean books” have ever found themselves confronted with. At the sunset of a crisp, windy, rainy day you are there, waiting and feeling rather cold in your best suit, your sweaty palms on your manuscript. As soon as the door opens, you can feel your heart beating as if it were in your mouth, hoping for a piece of advice or getting ready to receive some sort of criticism, but not expecting that question. You stand up to shake hands and you feel as if you were emptied, dizzy like a climber, shocked as if you were struck by lightning: you have never thought about that question before.

Both of us are academicians with twenty-or-so years of experience in teaching undergraduate, graduate, MBA, and Ph.D. students. At the same time, we like advising companies, firms, and businesses in the area of Operations and Supply Chain Management. Over the last couple of years, we have read and revised several books: some of them just for the sake of keeping updated about what’s going on in our field; some others because they were written by colleagues, or to get some inspiration for our own textbook.

Never before have we spotted a book providing an angle so remarkably different from the ones we are used to. This is against all the odds and somehow even more surprising, as we share with Mr. Baroncelli the legacy of professor F. Turco (who passed away too early), both a former colleague of ours and one of the founders of EFESO.

The remarks above bring us to the main question of whether there is any need for this book. The answer is yes, definitely. Indeed, this book fills a twofold gap.

On one hand, it states WCOM™ as a phenomenon, whose ingredients are techniques, tools, practices, etc., including people and their behaviors, skills, competencies, etc. Actually, WCOM™ is different from these elements and you have to go through the book to find out what it is. Indeed, we have to consider that the literature on WCM/WCOM™ is almost sparse and nonexistent. If you google

“Lean books” you will find 59 million results, while by googling “WCM books” there are much less hits, including the books by R.J. Schonberger. WCOM™ produces almost no result, which is, to some extent, surprising as the WCM/WCOM™ approach has been adopted—besides the five interviewed companies—also by large multinational corporations like Fiat Chrysler Automobiles (FCA), Heineken, Procter and Gamble, Milliken, and many others.

On the other hand—and here we come to the reasons why you need more than “lean”—three major points are to be taken into account.

First, the shift from Breakthrough to Continuous Improvement. The lean transformation is by itself a breakthrough, rather than some sort of Continuous Improvement: WCM/WCOM™ systems put together two infinite loops. The former contains Kaizen, while the latter contains the Performance Control System (PCS), thus creating a never-ending recurrent system where improvement and variance control waltz together in harmony.

Second, the Human Factor. This book delivers the message that everything in our business is about people. This seminal concept within Autonomous Management is bolded in the third part of this book. People play a major role both on the shop floor and in the boardrooms, they are the key to unlock the potential gain of effectiveness everywhere and, by flipping through the pages, this element—at first almost unnoticed or considered just as one side of the coin—emerges as the main character of the book. This remark triggers some additional insights into the real need to go beyond “Lean.” Above all, this book hands over a snap giveaway: “people first, then models.” Interestingly, we are used to proceeding in the opposite way, by teaching models first—as if they were better run without people—and then we highlight the human side, the behavioral impact, etc.

Third, the long-term sustainability. Besides the infinite loop, the pillar system allows to orientate the organization to an inter-functional attack to losses. Indeed, this is based on the inherent inter-functional nature of losses, which makes the traditional organizational structures unfit for the need to eradicate the losses permanently. The pillar-based system leads to a learning organization capable to capitalize the knowledge for Continuous Improvement, which provides a long-term sustainability to the Continuous Improvement system almost unknown within traditional lean systems.

This book is arranged into four main sections. In the first section some success cases are told by the leaders of five large multinational groups, each one overviewing the reasons, successes, obstacles, hurdles, and recommendations for those who would be glad to set off for a WCM/WCOM™ transformation. The second section is devoted to describing the WCOM™ model: you will broaden your horizon far wider than the concrete walls of plants and manufacturing facilities to overlook the end-to-end supply chain. The third section focuses on the human side, dealing with the main principles of leadership and behavior. Finally, the fourth section provides an overview of the main contents connected to each pillar of a value chain.

In conclusion, this book could be a good read for whoever—managers, directors, students—is willing to get more insight into the WCM/WCOM™ approach, and into what you can find beyond Lean.

Milan, Italy

Roberto Cigolini
Andrea Sianesi

Preface

Saint-Gobain since several years has launched a program of World Class Operations Management, which is the application of Continuous Improvement principles to our industrial organization.

As all large companies, Saint-Gobain has to adapt itself to the new world created by globalization.

Consider the long heritage that Saint-Gobain has: it was established in France in 1665, 350 years ago, as *Manufacture royale de glaces de miroirs*, by Louis XIV. In 1684, Saint-Gobain won the order to create the mirrors that still adorn the Hall of Mirrors in the Royal Palace of Versailles, in the South of Paris. Since then innovation has been the core business and the group, in the different historical phases of its life, has always been leveraging to reinvent and adapt the business model to be at the cutting edge.

The globalization process we have gone through the last 15 years has meant mainly three challenges:

- a wider strategic field, leading to an increasing size of the Company, offering more opportunities for development;
- consequently more complexity in the Organization;
- more competition as well.

To take these three challenges, WCOM™ appeared as the most appropriate approach, because

- it creates results,
- it builds a common industrial culture, ensuring a factor of cohesion between persons working for the same company, but in different businesses, countries,
- it develops, through the common culture, the strategic flexibility and reactivity of the company,
- and most important, it empowers the people at the shop floor level and develops their autonomy to adapt and improve permanently the organization.

In the meantime the art of management has changed. It is not anymore the time when the managers tried to instill their thoughts in the operators pretending they execute. It is more the moment to create, in all decentralized organizations, the best conditions for success. The need for speed and for simple pragmatic solutions to operational problems makes it mandatory to empower the shop floor and make it proactive and autonomous (in problem solving).

In our world, the large Company cannot be managed by a few persons: problems have to be dealt and fixed where they happen, through a large number of empowered employees.

Of course, strategy imports, investments import, innovation imports, but the motivation and the knowledge of all the people is key. And what better way to motivate than to give more responsibilities, more influence on their work and performance, to all the operators?

We consider that, together with innovation and expansion to new markets, WCOM represents the third pillar of our growth journey. We are now extending the approach to the whole value chain, because we consider that, beyond the results already achieved, more is yet to come.

Jean Pierre Floris
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and oversight of the Innovative Materials Sector
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About the Editors

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He has been a member of the Board of Directors since 2007 and was responsible for the Knowledge Development of EFESO Group in the past.

He holds a Master's degree in Industrial Engineering from Politecnico di Milano, postgraduate courses at MIT in USA and at JIPM in Japan.

He has been academically involved in multiple roles, is responsible for the Manufacturing and Logistics' Area at the School of Management at Genova University, and is lecturer at ISTUD and MIP (Master of the Politecnico di Milano) and at Bergamo University.

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Noela Ballerio is Senior Knowledge Manager at EFESO, with 15 years' experience in knowledge & linguistics management and training.

She obtained a Law Degree specialising in Juridical Anthropology & Ethnology at Milan University.

During university she worked as a swimming teacher for children and disabled people.

After university she practiced as a lawyer and cultivated her passion for social sciences by attending a drama academy in Milan as well as seminars in drama therapy and conflict management.

She joined EFESO in 2001 covering the roles of Translation Manager, Knowledge & Communication Manager and Knowledge Senior Manager.

She is actually working in the EFESO Toolkit Team for knowledge development, especially in the Change Management area, as well as in training and people development.

She writes and draws children tales, translates books, makes readings.

Contributors

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Roberto Cigolini is professor of “Supply Chain Management” and “Production Management” at the Department of Management Economics and Industrial Engineering of Politecnico di Milano. His main interests are primarily related to business planning and control, indirect procurement, contracts negotiation, and real estate management.

He graduated cum laude in Management Engineering from Politecnico di Milano. He is director of the Global Executive Master in Operations and Supply chain management (GEMOS) at MIP—Politecnico di Milano Graduate School of Business, where he was co-Director of the MBA program. He is also co-director of the executive course in Real Estate Management. He is a member of the teaching body of the Ph.D. in Management Engineering at Politecnico di Milano and founding member of the Technical Committee on Semiconductor Factory Automation (IEEE Robotics and Automation Society).

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Europe, as Lean Manufacturing Manager Europe, where his main responsibility was to study and implement in European factories the most modern “Lean Manufacturing” methodologies, particularly TPM (Total Productive Maintenance).

He was appointed Director of the Aftermarket Operations organization, a new European Business Unit that he was responsible to create, organize, and staff; he maintained this assignment also through and after the acquisition of Allied Signal Braking Systems by Robert Bosch GmbH, in April 1996. He joined Tetra Pak in Modena in December 1998 as Director Converting worldwide. After that, he held several managerial positions until 2006, when he was appointed as Vice-President, Supply Chain Capital Equipment.

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Mario Galassini has an M.Sc. in Management Engineering from Politecnico di Milano. He joined EFESO in 1993 and has more than 20 years’ experience in Engineering, Product Development, WCOM, and Supply Chain projects.

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He has long experience in strategic NPD projects for multinational companies—New products, Greenfields, new processes, Industrialization and product range optimization, and experience in Service design and reengineering in various fields.

He has also developed the World Class Operation Management Practice for multinational companies and medium sized factories, from Product Development to Supply Chain domain.

Mario assists clients of many industrial sectors, from Automotive to Food, Personal Care, Mechanical and Engineering and Public Administration.

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Clive Geldard is Group Vice-President responsible for the global Retail and Supply Chain practice of international consultancy EFESO. He has 25+ years’ experience in end-to-end supply chain, logistics and distribution channel management, both in Operations and as a Management Consultant.

He has worked in complex multi-channel B2B and B2C businesses in the UK, Europe, and developing markets in the Middle East and Africa. Initially working in the Automotive Aftermarket and Distribution sector, he moved into Retail and Consumer Products working with companies such as ECOLAB, Unilever, L’Oréal, Imperial Tobacco, Tetra Pak, and Apple and retailers such as Wal-Mart, Co-op, Pick n Pay, Primark and Jerónimo Martins. Most of his career has been spent managing and implementing change, working with clients to help them build the capability to support strategic supply chain transformations and continuous improvement.

Clive is co-author of research papers “Supply Chain in the Boardroom—Closing the Implementation Gap” and “Successful Supply Chain Strategies for Emerging

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Mark Goodwin brings an unusually broad range of experience to a leadership role in Efeso, having had five different careers: in diplomacy, consulting, manufacturing, tropical farming, and psychotherapy.

Following his Master’s in Nuclear Physics at Oxford he joined the Diplomatic service (UK Government) in the South Pacific, helping the Gilbert Islands attain independence as one of the last Colonial Commissioners.

He learned shop-floor consulting methods with Alexander Proudfoot in Europe and rose to become the Director General in 1983.

He was the founder and Chief Executive of Booker Tate, the world’s largest tropical farmer between 1983 and 1990.

He was the founder and Chief Executive of Booker Tate, the world’s largest tropical farmer between 1983 and 1990.

He was the Chief of Staff for Carnaud Metalbox in Paris, Europe’s largest metal packaging company. This is where he hired EFESO to help him with a new factory culture.

He is a trained psychotherapist, being a member of the Institute of Group Analysis and the UK Council of Psychotherapists.

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He reports to President of BNA and is a member of the executive leadership team. He is responsible for implementing the vision of the new Organization and for delivering the Safety, Quality, Service, and Cost metrics. He is functionally responsible for Manufacturing (25 plants, 6000 employees), Engineering, WCOM, Quality, Graphics and Supply Chain and Logistics.

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Andrea Montermini has been working as a management consultant since 1998, having acquired core competences in business planning, transactions, cost management, supply chain, sourcing, organization.

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Today as Vice-President of EFESO Consulting, he leads the Group activities in three practices, notably the Aerospace and Defence industry, the Strategic Cost Management practice and the Litigation Support business unit.

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Neil Webers is Vice-President and Managing Director of EFESO The Netherlands, and member of the group domain management team. As Performance Behavior expert he has published numerous articles and has written several books on his expertise: the connection between the behavior of people and the performance of an organization. He studied business and worked in retail operations before founding his own company on behavioral performance improvement, which was acquired by EFESO in 2013.

In his Performance Behavior book (US version published 2012), Neil reveals the secret of improving performance driven by a sustainable behavioral organizational change. He discloses how to make behavior measurable and explains different behavioral profiles, the steering and accountability structure and action indicators—crucial factors necessary in facilitating the measurement and steering of behavior. This unique approach sets the new standard in creating ownership, discipline, and responsibility to continuously improve a company’s results.

Eric Wolff has a background in Food Industry and Biotechnology and a Ph.D. in Chemical Engineering. From a Research and Development career starting point, he moved to L'Oréal in 1992 and has covered different positions in Process development, Manufacturing, and Quality in Europe and North America. He was Quality Manager in the L'Oréal plant in Belgium, Quality Manager for the North America global Zone (covering 9 factories and a global lab) in the US, Plant Manager in Montréal (QC)—Canada, then Worldwide Corporate Manufacturing Manager and since 2011 he is Worldwide Corporate Quality and Manufacturing Director for the entire L'Oréal Group, directly reporting to WW Group COO.

Gaia Zampaglione has worked in EFESO as Consultant and Knowledge Expert from 2010 to 2015. She supported organizations and leaders to change for better their organizations. Her main areas of expertise are Operational Excellence and Lean implementation in the end to end value chain, in parallel with the capability to sustain the change with knowledge management activities and platforms. She is an Engineer from the Politecnico di Milano. Prior to working in EFESO, she has been a consultant in Kaizen Institute for two years.

Introduction

My first-ever encounter with what is today known as Operational Excellence occurred in November 1984 when, after some years working in the industrial office of a large electrical appliances company, I was fortunate enough to participate in a training program that entailed a long study abroad organized by the Japan Institute of Plant Maintenance. Back then, Japan was at the forefront in production systems and had near stunning conditions as compared to our industrial world. The performance and cultural gap was huge. We as visitors, a mixed group of delegates from universities and international industrial companies, were unable to even come up with the right “questions” to ask: we asked about their planning and control and IT systems, their automation implementation, their organizational structures, and they weren’t able to comprehend our questions. They answered by saying their success was based on principles, philosophy, participation and involvement: it was as if we were speaking two different languages.

I finally began to understand a little bit more the following year when I attended lectures held by Richard Schonberger in the United States. Over a two-month period in summer 1985, alongside Filippo Mantegazza¹, we paid a series of visits to Japanese trans-plants and innovative companies. The “pull” system was explained to us by a very kind assembly line leader in Oregon at a brand new Hewlett Packard printing plant. Up until the previous summer, this woman had been driving tractors (she was a farmer that made the switch after the birth of the ICT industry on the west coast) and she did not have a predisposition to MRP or Wilson’s formula for economic order quantity. With that being said, and without any sort of predetermined method, she adopted with ease the methods that, after Womak and Jones’ research at MIT, would become known as “lean”.

Since then, three decades have gone by, and the entire global industry has taken steps forward, transitioning from consolidated models based on Taylor and Ford’s offerings to modern production methods.

¹Filippo Mantegazza is the Chief Executive Officer of EFESO Consulting

Over the years, I have had the opportunity to collaborate with one of the most creative and innovative teams out there², one of the first in the western world to gradually introduce such auspicious methodologies and approaches.

From those first rudimentary attempts at introducing Just In Time production as well as Total Quality, supported by the Theory of Constraints, to the adoption of Total Productive Maintenance, to World Class Manufacturing and the most recent approaches based on Change Management, Performance Behavior and the Principles of the Shingo Institute, these 30 years have gone by in the snap of a finger, highly concentrated on demanding challenges, helping large groups to “change” in order to survive and prosper.

World Class Operations Management (WCOM™) is the combination of hundreds of successful cases in various continents, spanning all latitudes and various cultural conditions. In addition to harmoniously integrating Lean, TPM and Six Sigma, all of which explain the “what”, the WCOM™ model adds value, compared to these previous approaches, by providing a robust explanation of the “why” and “how,” which in this day and age are the most important questions to ask.

What separates this book from a management textbook is that it does not focus solely on the recipe for success, but tells real stories, with difficulties, obstacles and possible countermeasures.

Considering that we wanted this book to offer the best in the business regarding Operational Excellence, we tied together the experiences of large industrial groups as well as the most innovative and interesting approaches. Together, these elements created the foundation for the WCOM™ experience.

A special thanks goes out to all the contributors, whose experience played a big role in this book.

I believe that, with all these experiences meshed together, they combine for hundreds of years of work experience, the turnaround of various international groups and the switch to OPEX in thousands of different organizations.

Carlo Baroncelli

²The EFESO Team