



## Lean for Dummies

Natalie J. Sayer and Bruce Williams

Wiley Publishing, 2007

\$21.99 362 pages

## Six Sigma for Dummies

Craig Gygi, Neil DeCarlo, Bruce Williams

Wiley Publishing, 2005

\$21.99 344 pages

### Reviewed by Paul Harmon

I've spent many years analyzing processes and designing training programs to help people learn what they need to know to perform complex tasks. Along the way I've had to learn, quickly, about a lot of different subjects. One of the things I learned early was the importance of good introductory books. Having written several books myself, I can assure you that it's easier to write a longer, more technical book than a shorter overview. The good overview must determine just what's really relevant and what's simply nice to know. Moreover, it must develop a "model" or "theory" that enables a new student to quickly grasp the major elements and relationships of the new subject matter. I've learned never to start with the comprehensive books – they are the ones that force me to figure out what's important and what isn't -- but to always go for an overview in which the author has done the hard work of summarizing and prioritizing what I need to learn -- provided I can find one.

One series that has produced several good overview books is Wiley's "for Dummies" series. I reviewed their book on SAP NetWeaver last year. It provides a great introduction to a complex subject. This past month I checked out their *Six Sigma for Dummies* and their new *Lean for Dummies* and am happy to say that they both provide excellent introductions to their respective fields.

*Six Sigma for Dummies* is perhaps the best general introduction to Six Sigma I've read (and I've read quite a few). The table of contents provides a good overview of the content:

#### Introduction

#### Part I. Six Sigma Basics

1. Defining Six Sigma
2. Examining the Principles and Language of Six Sigma
3. Pinpointing the Essentials of Six Sigma

#### Part II. Understanding and Enacting the Breakthrough Strategy (DMAIC)

4. Finding the Pain – Defining Projects
5. Measuring the Gaps
6. Measuring Capability
7. Separating the Wheat from the Chaff
8. Qualifying the Critical Few
9. Achieving the Objective
10. Locking in the Gains

#### Part III. The Six Sigma Tool and Technology Landscape

11. Identifying Six Sigma Practitioner Tools
12. Mastering Six Sigma Manager Tools

#### Part IV. The Part of Tens

13. Ten Best Practices of Six Sigma

14. Ten Pitfalls to Avoid
15. Ten Places to Go for Help

In essence, the book defines the basics of Six Sigma, then it walks you through the DMAIC methodology, then it introduces you to specific analysis and measurement techniques and tools, and finally it summarizes with its lists of tens. The basic definitions are as clear and precise as I've seen. The methodology is well described, although it could have used some detailed case studies, and the tools and techniques section has considerably less than some books that specialize in describing every possible tool and technique. As I say, it's an overview – and a good one. It wouldn't prepare anyone to be a black belt, but it would be a good introduction for a green belt or any manager that was considering using Six Sigma and wanted to know what to expect. It comes with a one page "Cheat Sheet" that summarizes lots of information. This sheet includes a very neat list of steps in the DMAIC methodology with corresponding tools that can be used to accomplish the various tasks that occur in the five phases.

*Lean for Dummies* is the more recent book, and includes more current information. There is an extensive literature on Lean but few good summaries that cover the range of topics included in this book. Once again, the table of contents suggests the scope:

#### Introduction

#### Part I. Lean Basics

1. Defining Lean
2. The Foundation and Language of Lean

#### Part II. Understanding Flow and the Value Stream

3. Seeing Value through the Eyes of the Customer
4. A Resource Runs through It: Value Stream Mapping
5. Charting the Course: Using Value Stream Maps
6. Flowing in the Right Direction: Lean Projects and Kaizen

#### Part III. The Lean Toolbox

7. Customer and Value-Stream Tools
8. Flow and Pull Tools
9. Perfection Tools
10. Management Tools

#### Part IV. The Lean Enterprise

11. Lean in the Organization: Principles, Behaviors, and Change
12. Power to the People
13. Go Lean: Implementation Strategy, Startup, and Evolution
14. Lean within the Enterprise
15. Lean across Industry

#### Part V. The Part of Tens

16. Ten Best Practices of Lean
17. Ten Pitfalls to Avoid
18. Ten Places to Go for Help

Once again, *Lean for Dummies*, provides a nice introduction to all of the major topics with clean definitions and good examples. The Cheat Sheet defines muda (waste – an activity that does not add value) and goes on to define Type-1 muda (non-value-added, but necessary for the system to function) and Type 2 muda (non-value-added and unnecessary for the system to function). I point this out only because the last two books on Lean that I looked at both used the term without bothering to define it. The same sheet also provides a nice overview of the basic graphic notation for value stream mapping. I particularly liked the chapters that discussed how Lean was being applied in non-manufacturing industries. Their discussion of the Seven Types of Service Waste and how services can be made Lean was worth the price of the book.

Both of these books are written from the perspective of true believers. Thus, for example, the Six Sigma book defines Six Sigma as “the single most effective problem-solving methodology for improving business and organizational performance.” The Lean book defines Lean as “the most powerful and effective way to build and sustain continuously improving businesses and institutions.”

In describing DMAIC, the Six Sigma book uses a chart that suggests that Six Sigma leads to very rapid (breakthrough) improvements while showing another line for Kaizen (Lean) and for Business Process Reengineering (BPR) that suggests they lead to much slower improvement. (A very questionable claim that would need to be qualified by discussing the exact nature of the projects and the potential gain the company might achieve.)

In the Lean book, speaking of Lean Six Sigma, the authors suggest you should be cautious of Six Sigma people offering Lean Six Sigma approaches. “These purport to be a natural combination of the two methods, to bring you the best of both worlds. What many of the Six Sigma consultants have done, in fact, is to cherry-pick a few Lean tools – particularly pull techniques and waste-reduction tools – and subordinate them into the Six Sigma deployment frameworks. Although this certainly extends the power of and capabilities of Six Sigma, it’s not Lean. In particular, these other methods tend to neglect the people and cultural elements, the accessibility and inclusiveness and everyday Kaizen.”

I’d say both books provide excellent introductions to their specific topics. But I’d have to go on to say that neither really provides a comprehensive overview of the challenges companies face when they approach business process change. Of the two approaches, Lean is the more comprehensive. It actually has two major elements – (1) Value Stream Mapping (Flow Kaizen) and (2) a variety of process improvement techniques – among them the Seven Forms of Waste (Process Kaizen). Thus, Kaizen can offer companies both enterprise level and process level assistance. It can start helping a company redesign its value chain (stream) and then move on to improving a specific process within the overall value chain. What Lean doesn’t seem to have is an overall methodology that explains when you do which and how you integrate them with other available techniques. Notice that the Six Sigma book devoted a major section to the Six Sigma methodology – a step-by-step approach to actually doing Six Sigma. There is nothing similar in the Lean book. Lean has nothing like DMAIC. Thus, although Lean has techniques that can be used in situations well beyond the vision of DMAIC, it doesn’t have a core methodological framework that tells you what to do when. (This explains why the Six Sigma people tend to adopt specific Lean tools and use them in the DMAIC context.) Obviously this complaint reflects my own bias – that the whole field of business process change needs a broader framework that encompasses enterprise, process and automation efforts within a single methodology.

I would love to see what the authors of these two books would come up with if they would work together a *Lean Six Sigma for Dummies* that really showed how both approaches could be combined.

My quibbles, however, are those of someone who wants to know how to fit Process Redesign, Lean, Six Sigma, and BPMS into a comprehensive business change methodology. These books were not written for me, but for readers who just want to come up to speed on the basic concepts and techniques associated with Six Sigma or with Lean. As such, they are among the very best books I have seen. They provide gentle, systematic, and clear explanations for readers who want an introduction to Six Sigma or Lean, and I highly recommend either or both.

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