**Overview of Operations Improvement Methods**

There are several philosophies or methods that are used to improve operations in manufacturers. They include lean, constraint management and six sigma. In the world of printing, the two that are most applicable are lean and constraint management.

Six sigma is most frequently used in medical and high-tech processes where very strict quality outcomes are fundamental to the business. While six sigma can apply to printing, it is not typically the approach that will provide the fastest and most beneficial outcomes.

Lean focuses on elimination of waste in the company – throughout all of the various processes that occur in a business, starting with sales all the way through billing. Lean typically stresses 7 types of waste, although focusing three of the seven provides 95% of the benefit of a lean effort. Lean Thinking by Womak and Jones was one of the original books developing the lean methodology, although some of the examples in the book are pretty extreme and simply would not be sustainable. That said, it is still a great resource to understand traditional lean.

Constraint management (CM) focuses efforts around the most limiting resource in a process. Once the constraint is identified (it is usually a skill or a piece of equipment), that resource is scrutinized to elevate its output, thereby increasing the output of the entire process. A simple example is an hourglass. Increasing the flow through the bottleneck in the hourglass improves the flow of the entire process. The original source of constraint management is in the book, The Goal, by Eli Goldratt. This book is a very easy read as it is written as a novel.

The best improvement methods combine tools from the three (lean, CM and 6 Sigma). Think of a carpenter only using a saw or just a hammer. They are most effective by using the appropriate tool for the work that needs to get done. Knowing all of the various tools from each of the methods leads to the best results – and the quickest results.

This monthly operational improvement series of articles presented by PIM and its operations partner, STRATE***X***, is intended to teach practical methods – beyond the theory covered in The Goal and Lean Thinking. Like, which 3 of the seven wastes yield the best results? Why the 5-step process in The Goal doesn’t work – it needs a sixth step, etc. What are the foundation blocks for both Lean and CM to really work?

**About the Author:** Bob Krausert is the owner of STRATE***X***, a Twin Cities based firm that works nationwide. Bob is the author of the book, Extreme Lean, published in 2018. Bob has worked with over 60 printing companies, mostly mid-sized companies, but also with larger companies like Jostens and RR Donnelly. Bob has been working with PIM since 2010, periodically providing educational seminars for its members. Bob can be reached at [stratexlean20@gmail.com](mailto:stratexlean20@gmail.com) or by phone at 612-743-8706. If you would like to have a specific question or topic covered in one of the monthly articles, feel free to make the suggestion!