

Constraints Management from APICS — The Key to Success

By Brad Stillahn, CPIM, CIRM

I own a small manufacturing business called West Tape & Label (West Tape), and I want to make more money now and in the future. In 1994, three years after acquiring the company, it was losing money and the support of the bank. There wasn't going to be much of a future if the company didn't make money now! But how?



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I was frustrated because I didn't have a handle on the business. I had significant training, and a toolkit full of tools but no clear way to use them to make money quickly. As I have in the past, I turned to APICS. Let me explain.

Back in 1983, I joined APICS and started pursuing my Certified in Production and Inventory Management (CPIM) designation. Becoming CPIM helped me secure a logistics manager position with responsibility for a large network of paper mills and converting plants. The company rapidly and dramatically improved manufacturing lead times and on-time performance as a direct result of my learning from APICS.

Later, as director of corporate marketing for another large, multidivisional company, I pursued my Certified in Integrated Resource Management designation. Understanding that large body of knowledge was extremely helpful in developing business strategies for a diverse mix of businesses.

Late in 1994, as the owner of West Tape, I began attending the APICS Denver Chapter monthly dinner meetings. At one of the first meetings I attended, the dinner speaker gave an excellent overview of constraints management. I was excited since the goal of the implementation steps was clearly

defined as to make more money!

Timing is everything. Hungry for more information, I was pleased to receive an announcement for the first APICS Constraints Management (CM) Symposium in April 1995. That was the pivotal point in West Tape's history.

What a revelation! Here was a process for improving my business to make more money now and in the future while improving employee and customer satisfaction at the same time! Tom McMullen, then CM SIG chair, and Lisa Scheinkopf, current CM SIG chair, organized an outstanding conference. I was able to learn from and mingle with the top constraints management minds in the world.

After the first symposium, we reassessed the entire business. It was clear that many of our previous actions had been unproductive, or even counterproductive. Worse, our policies were restricting us from improvement. For example, West Tape defined its mission as "selling to independent retailers through independent sales representatives." West Tape has been in business for nearly 50 years, dating back to the invention of pressure-sensitive label materials. That mission was appropriate during the rapid growth of the label industry. But in light of the industry's maturation, the plight of the independent retailer and the difficulty finding new independent sales representatives, the mission represented an outdated set of sales policies that needed to change.

Internally, it was believed that the company made money by "gang-runs," which means batching, or running all the materials for the job at one time. That belief had been handed down through a series of general managers, all former accountants, who had run the company for the previous 20 years. But to gang-run colors, stocks and dies appropriately, an order backlog of four to six weeks was necessary. Few customers

tolerate such lead times, so West Tape needed to change production policies.

The APICS CM SIG sponsored the Theory of Constraints (TOC) seminar series in several cities, including Denver, during 1995. West Tape was able to send several employees for training on 1) TOC simulators, 2) the five steps, and 3) the TOC thinking processes. After the company lost money in 1994, employees understood why change was necessary. The 1-2-3 series quickly built consensus that constraints management provided the roadmap of what and how to change. One of the first decisions was what we should choose as the internal constraint.

West Tape has two similar processes — flexographic ink printing and hot foil stamping. A custom label order progresses through sales, customer service, graphic design, plates, stock slitting, printing, rewind, packaging and shipping. Because there isn't any raw material splitting or finished goods assembly, our processes characterize us as an "I" plant. With a little help from our friends, we decided that the internal constraint should be the printing presses.

A buffer of jobs was placed in front of each press as soon as they were chosen as the internal constraint. Everyone was involved in making sure the buffers were full, just like in the simulators. Improvement and results can come quickly with constraints management, and by 1995, the order backlog was reduced to two weeks. West Tape made a respectable profit, and employees received sizable incentives even though we were still only CM trainees at best.

The 1996 APICS CM Symposium gave us the opportunity to learn how to make more significant improvements. The case studies and consultant presentations set a standard for quick, dramatic results. In addition, I left the APICS Bookstore with a weighty collection of

books and tapes which I later used for reference and in training other West Tape employees.

In 1996, we turned our attention to sales because the constraint was in the market. I was shocked to discover that, with little additional operating expense, West Tape's capacity to produce was *not* the 10 percent more I originally believed, but 300 percent. Imagine the net profit if only the additional throughput could be found!

We started by introducing our sales representatives to the concept of throughput per minute of constraint utilization. Put simply, this means selling products that make the most money. With their involvement, we began retooling our product offerings and pricing in relation to the production process involved. The concept of throughput per minute on the internal constraint became the driving force in our decision-making. By 1996, West

Tape moved into the top quartile of profitability in the label industry, though we have yet to exploit the market constraint.

West Tape was fortunate to host a tour for the 1997 APICS CM Symposium. The preparation revealed how much more opportunity there was for improvement. We discovered that, despite our internal improvements, we hadn't really implemented drum-buffer-rope. We are doing that now and expect to quickly reduce our quoted lead time and dramatically improve due-date performance.

The 1997 symposium reminded us of the opportunity for rapid, dramatic improvement. To address the still present market constraint, we pursued an additional market, specialty foods. This market is much larger than our available capacity. Our product can be used to help specialty food manufacturers increase their own throughput, as our

tagline "Advertising That Sticks" suggests. Using the thinking processes, we have now developed our marketing offer, which has implications for improvement throughout the supply chain.

Since the first APICS CM Symposium, I have been a sponge for constraints management information. Since my goal is to make more money in the future, I'm looking to APICS for a continuing stream of constraints management education so that I am not the constraint! The way I see it, APICS has all the educational tools a small manufacturing business needs to keep the bottom line healthy. ■

Brad Stillahn, CPIM, CIRM, is the owner and CEO of West Tape & Label Inc., a custom label printer. Stillahn received an MBA from Washington University in St. Louis and has recently served on the board of the APICS Denver Chapter.

APICS REPORT

Constraints Management Symposium and Technical Exhibit a Big Success

The 1997 Constraints Management (CM) Symposium and Technical Exhibit, held April 17-18 in Denver, was a big hit, drawing 451 attendees. A highlight of the program was the keynote address by Eliyahu M. Goldratt, Ph.D., the developer of the theory of constraints (TOC), who discussed the application of TOC to project management.

"I was pleased with the event — the feedback from attendees was overwhelmingly positive," said Lisa J. Scheinkopf, CPIM, CM SIG chair and a consultant with Chesapeake Consulting Inc., based in Tempe, Ariz. "The CM SIG team did a great job in putting together the program, and the quality of the presentations showed that TOC and CM are maturing concepts that are taking hold in the business world."

The symposium proceedings (item #04220) and a list of available audiotapes of the sessions (item #01561) can

be ordered by calling APICS Customer Service at (800) 444-APICS (2742) or (703) 237-8344.



CM Symposium attendees, including keynote speaker Eliyahu M. Goldratt, Ph.D., (left foreground), enjoy a tour of West Tape and Label Inc.