

White Paper

The Role of Metrics in Continuous Improvement

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Why do metrics?

The difference between highly successful companies and the also-rans isn't found in the ability to solve problems. Instead, finding and focusing on often hidden opportunities that are worth solving is a defining characteristic of established winners.

I'm certain your experience is similar to mine. A problem arises, and we are forced to focus on details of the situation. What we learn during this detailed analysis, not only helps us solve the problem at hand but leads to other significant gains. Is there a way to get the improvement without suffering through the "big problem"?

At Process Coaching Incorporated we are helping our clients do just this. Implementing a *metrics management system* consistent with established lean principles is the way to provide focus before the "big problem" erupts.

What is Continuous Improvement?

To be a real leader in your industry, you must be good at continuous improvement. But do you know what it is? Without the right definition, we think we're engaging in "Continuous Improvement" when we're really just going through the motions.

Continuous improvement is intentional. We look for problems, for opportunities to fix something. My very first experience with Toyota illustrates this concept.

I'd just landed a job with a new company. We were responsible for a large vehicle conversion program with Toyota, and I was the project manager. The program wasn't in great shape, which was why I was hired. The Toyota assistant chief engineer had come to Detroit to spend two weeks with us, reviewing technical and timing issues. The meetings went well and he was clearly satisfied with the progress we were making. But during the wrap up meeting with my boss, he reached into his shirt pocket and pulled out a long list of remaining issues. I was shocked to see more than 50 items on his list. After our review, I asked the Toyota engineer what had changed. How had I misread the situation so badly? His response explained everything.

"Krichbaum-san, much good progress has happened and we think the

program will go very good. But it is required that I find issues or I am not doing my job. I cannot go home without doing my job.”

So what is the definition of continuous improvement?

“An intentional, ongoing process of improving services, and procedures to improve customer satisfaction, quality, safety or profit.

A systematic process which identifies and eliminates waste so that ongoing, measurable gains are routinely achieved.”

Are you meeting the right targets?

Things were going well at the plants. I’d just been promoted to VP of Operations. Sales were strong, and my predecessor had done a great job of making sure he had strong leaders in position at each of the plants. We had good systems in place and it looked like it could be a good year.

Over the previous two years I had been very involved with the plants, so I knew exactly what obstacles we faced. In the past year, the division successfully launched several products and opened three new plants. A recently implemented, division wide *metrics management system* was in place. The monthly metrics reviews would provide the drumbeat for my regular visits.

Our metrics system was fairly typical. We established targets in critical categories and measured ourselves against them. If the results didn’t meet expectations, we were supposed to take management action to resolve issues. The system was new, and the team was still trying to figure out what it all meant.

As we reviewed the scrap performance metric at the Michigan plant, I realized there was something seriously wrong. The plant had met the target of 5% scrap and was petitioning me to allow them to stop detailed reporting on the category. But they hadn’t really changed anything, things just “got better”. Simple math quickly led me to realize that we were on the verge of walking away from a \$300,000 annual scrap problem. In that moment, I realized that

we must change our thinking. Our *metrics management system* couldn't continue to support the status quo; it had to drive true continuous improvement.

We revamped our metrics management system, not by eliminating targets, but by changing focus. By the end of the next year we had reduced our scrap at that plant by 80%.

The lessons – (1) don't get fooled by percentages, there are real dollars behind them and (2) don't think you're done when you meet the target. It was probably arbitrary anyway.

Have you developed your eyes for waste?

Let's face it. It is difficult to see waste. We live with it, in it, and around it for years. Too often it just becomes part of our lives. When we don't see it, we can't eliminate it. Left alone, it will rob you before you even know it.

Our new plant quickly became one of our top performers. The team routinely boasted double digit margins and world class quality performance. The on-time delivery performance of 100% over 5 years was perfect. Frankly speaking, they were good and they knew it.

The *metrics management system* had become the primary driver of continuous improvement. It was a tool we all took seriously. We came early to the "green" revolution and included environmental responsibility in our scorecard. In this facility we measured landfill expenses, as it was a good measure of the "fluff" we were generating.

Are you looking in the right place?

One evening as I was walking home I met a man on all fours. The man was searching frantically under a streetlight for something on the ground.

"What have you lost?" I asked.

"I am searching for my key."

"I'll help you look," I said and joined him in his search. Soon we were both down on our knees under the streetlight, looking for the lost key. After some time, I asked, "Do you remember exactly where you lost the key?"

The man waved his arm back toward the darkness and said, "Over there, in the alley, I lost the key in the alley..."

Shocked and exasperated, I jumped up and asked, "Then why are we looking for the key out here in the street?"

"Because there is more light here than in the alley."

In an automotive cut-and-sew operation, much of the scrap from the cutting of the raw materials is unusable, nobody wants it. Our plant manager had a passion for finding a market for our scrap, but it was a difficult challenge. Sending samples of the scrap to dealers across the country had proven fruitless. Our landfill costs continued to rise year after year.

What happened next cemented in my mind the power of a lean metrics management system. The commitment to excelling in all the metric categories was real, at this facility and at the ten others using the system. We decided to actively seek suggestions from associates at all of the facilities for ideas to deal with the problem at hand.

Our goal was to reduce landfill costs. We achieved it by changing the design of our product. Components of the assembly which were hidden had always been made from less expensive materials. Instead, we used the scrap material to make these pieces. The cut pattern layouts were optimized, further reducing the scrap. The improved design reduced our material costs by more than one million dollars. Not bad when our objective had been a modest reduction in landfill costs. Score one for the *metric management system*. Without it, we would never have fixed our unseen “big problem”.

Getting Started:

At Process Coaching Incorporated we developed a three step process to implement lean metrics systems for our clients. First we establish categories for measurement with executive management. Together we develop strategic visions for each category.

Next, we coach the team of managers responsible for the day to day decisions that drive the organization. This team converts the categories and vision statements into specific, actionable measures. Specific strategies are devised to guide future actions for achieving desired results. You can learn about the details of this process by downloading our whitepaper “*Establishing Lean Metrics – Using the Four Panel Approach as a Foundation for a Lean Scorecard*” from www.processcoachinginc.com/LeanMetrics1.htm.

Finally, we provide a low maintenance Excel based tool for easy management of the metrics data. You can read about our process for building these systems

in the whitepaper “*Establishing Lean Metrics – A Quick Start to your Data Based Reporting System*”, available for download from <http://processcoachinginc.com/LeanMetrics2.htm>.

Please contact us at brian.krichbaum@processcoachinginc.com to have a discussion about how a lean metrics system can help you start your continuous improvement journey.