



Business Success: Sustainability, Not Lowest Price

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The U.S. dollar is one of the strongest currencies in the world, and the Chinese have just devalued the yuan to pursue their preferred mercantilist interests exporting cheap goods to the world. Steel is cheaper than cabbage in China.

Pursuing the lowest price is a great strategy if you are buying raw materials and tools in Chinese yuan and selling in U.S. dollars. Getting the lowest price isn't really an option if you buy and sell in U.S. dollars. While currency manipulation is an issue that our shops must face, it isn't necessarily a problem that we can solve.

But problem solving is the key to building the sustainability of our businesses. To be sustainable, a company must learn to solve problems. Problems that remain unsolved have the potential to bring your company down. Loss of customers, higher costs and process failures can result in a slow spiral of increased pain and less gain for all involved. Here are four ideas to help you make your shop more sustainable.

Solve problems first.

Solving problems is the most efficient use of your company's talent and knowledge. The effort spent on solving the problem stops the deviation from normal in your immediate operations and reduces the potential expenditures on inspection, remediation and over-processing. Do you have a culture of problem solving? A culture where everyone knows that they have both the authority and responsibility to take steps to investigate, isolate, contain and improve the process to eliminate the problem? Does your culture celebrate the victories and share the lessons learned by your empowered problem solvers?

Do you have a process for problem solving embedded in your company? We have experience using the Ford 8-D process. We have also used Dr. Deming's PDSA (Plan Do Study Adjust) process for less formal, but just as critical problems that need solved. Many companies with strong Six Sigma culture use DMAIC (Define Measure Analyze Improve Control).

Just as you cannot make parts without machine tools, you cannot solve problems if you do not have the problem solving tools and cultural commitment to do so.

Solve the problem for good.

It does no good to solve a problem today only to see it return later. That is not problem solving. It is critical to identify the root cause and then take permanent corrective actions to prevent that root cause from ever appearing again. Root

cause corrective action is difficult, because it requires organizations to change, such as buying different tools, materials or products than they had planned because of some unexpected attributes that resulted in a failure in your shop.

What problem has your team made go away forever in your shop? Can you name one? Two? More?

Unanticipated changes to bill of materials, tooling orders or process control plans result in extra expenses and are high-emotional impact events. But the facts are the facts, and denial of the facts in the face of an ongoing problem is a great way to bleed cash while everyone looks the other way. Changing the process and/or its inputs is quite likely to involve an additional expenditure of cash. Failure to change the process will result in the enterprise's costs permanently being raised by additional expenditures for inspection, sorting, rework and increased labor expense and yield loss, not to mention premium freight. Solve the problem for good by identifying the root cause. Demonstrate that you can turn it on and off by changing the input or process step implicated, then permanently change your systems to eliminate that cause. This is how organizations continuously improve by eliminating future potential costs of quality.

Understand that the lowest cost over the long term is not the lowest price over the short term.

Yes, you can buy cheaper tooling from a jobber. Many purchasing departments are incorrectly focused on cost per tool, cost per pound of raw material or cost per gallon of metal removal fluid. In a perverse sense of irony, purchasing personnel are often incentivized to lower costs of input tools and materials instead of being aligned with the company's goal of the lowest cost per compliant part produced.

Cheap drills are no bargain if they only last for 60 to 70 holes instead of 400 to 500 per drill. Metalworking fluids that are cheaper to purchase may not deliver the lubricity and heat removal characteristics needed to allow your machines to get to a speed and feed that will actually exceed the parameters on which you based your quote. But that's okay, because the purchasing agent will get their incentives for getting lower costs on inputs. What about a multi-feature combination tool that will eliminate additional operations or

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hold tolerances closer between dimensions? Is that idea vetoed based on cost of tool alone? Or does your estimating process examine the best ways and not only the cheapest ways to tool the job?

To be sustainable, the company needs to have the lowest cost to produce a compliant part, not only the cheapest materials to make it. Does your shop reward the cheapest inputs or lowest cost-per-compliant part produced? Have you ever thought about it? How many jobs are running below quoted rate in your shop today? How many of those are due to inputs being less than needed for the job?

Spend less time on maintenance by planning it.

Our industry has an unhealthy obsession with cycle time. I get it. What we sell is time on our machines at a given quality and engineering level, so cycle time directly affects our quoted part cost.

But for your shop to be sustainable, the focus has to be to eliminate unplanned downtime and lost production time due to unexpected breakdowns. We have rigorous systems for ERP and operations planning, but does your shop have any process at all for proactive machine maintenance?

Unplanned maintenance due to breakdowns increases your indirect costs by requiring downtime, expedited freight

for key repair components and additional maintenance spending. I personally eliminated 95 percent of unplanned downtime in a steel bar mill by implementing a scheduled maintenance process and recording key operating indicators on each shift for key components. The resulting uptime allowed us to reach our business plan for operations and reduced our total maintenance spending. As our reliability went up, so did our order book.

What do you think?

Many people think that buying cheap to get the lowest price is the key to success in business.

In today's zero ppm and 100 percent on-time world, lowest price actually costs your company business, rather than helping you get business. To sustain your business, you must create a culture that solves problems first. Solves problems for good. Understand that lowest cost over the long term is not the result of lowest cost over the short term. Prioritize planned maintenance over merely reacting to unexpected breakdowns.

What problem has your team made go away forever in your shop? Can you name one? Two? More?

Each problem permanently eliminated is another step toward sustainable success for your shop.

HOT TOPICS

PMPA members support one another through email Listserves, where they can solve problems, share advice, sell excess material and equipment, and learn about new developments and opportunities. Here is a list of topics that were recently discussed:

- Rifling a bore on CNC lathe
- Cross drill issues
- Machining magnesium
- Auto loaded CNC chucking lathes
- CNC machine networking
- Swiss cutting oil choices
- Saw cutting 304SS full hard
- Geometric die head repairs
- Conflict minerals certification
- Regulatory Issues
- EPA concerns



PMPA CALENDAR

Below is the calendar of upcoming conferences and events scheduled for the 2015 program year. For the latest district/chapter meeting information, please view the Calendar of Events at pmpa.org/events/calendar. If you have questions about PMPA conferences or regional meetings, please contact Monte Guitar, director of technical programs, at 440-526-0300 or mguitar@pmpa.org.

2015 Annual Meeting
 October 23-27, 2015
 Hyatt Regency Maui Resort & Spa
 Lahaina, Hawaii



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