

BREAKTHROUGH

Lean Implementation & Training Resource Publication
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GETTING A HANDLE ON COST

By Aaron Styles

Performance Measurement Based on Variance to Budget

The poorest performance measure any manager could be judged by is variance to budget. Here's why: Budgets are collections of guesses. Some simple statistical analysis shows that a budget isn't worth the paper it's written on (as a performance measure, anyway). Let's be conservative and say that there are 20 separate accounts that you budget. And let's be optimistic and say that you have 95% confidence that the amount you budgeted in each account is correct. The probability that your budget is correct is $100 \times (.95)^{20} = 35.85\%$. Furthermore, you only have that level of accuracy if your revenue forecast is exactly on the money. What happens if demand for your product increases or decreases?

Budgets are static and do not adjust to changes in your business conditions. For all these reasons, performance to budget is the worst possible performance measure you could ever select. If I had a nickel for every time a manager passed up on an opportunity because he didn't have money in the budget, I'd make Bill Gates look like a pauper. I see decision-makers all the time pass up on can't miss 1000% ROI projects because their hands are tied by a budget. Americans are losing jobs to China and India as a result, and that's sad.

Budgets do have their place. It is better to have a plan than not to have a plan. And the point isn't that we need to make our budget more accurate (you'd have better luck trying to make the sky more blue), rather it's that we need to not use the budget to do something it wasn't intended to do. It does have its proper place...as a plan. And like any other plan, the Deming cycle needs to be applied to it (Plan – Try – Check/Reflect – Adjust/Standardize). More on that in a future newsletter.

So what's better? How about Profit? And don't muddy it up with before or after taxes or all that other stuff. The KISS principle works best here (Keep It Simple and Standardized). Profit = Revenue - Expenses. It's easy, how much \$\$ came in and how much \$\$ went out. This is the bottom-line performance measure for any company. Even if your goal is to "Save the Whales", you won't be in business long if you spend more than you bring in! Profit focus has absolutely nothing to do with greed, or at least it doesn't have to.

Cost and Profit

Even someone with the most cursory knowledge of Lean Manufacturing can explain the unique perspective Toyota developed on Cost and how it differs from the perspective of traditional US manufacturers. For a long time, the manufacturer dictated the price and the amount of profit they would make on their products, as described in the equation below.

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Cost and Profit, cont'd

Price = Cost + Profit

In this situation, the manufacturer isn't worried about Cost because they simply pass it on to their customers. Manufacturers controlled all three variables. They didn't have to concern themselves with Cost because Price and (more importantly) Profit were under their control. In a global economy, price is dictated by the market and is no longer controlled by the manufacturer. In this situation, the manufacturer controls only one variable (Cost) and their ability to earn a profit is directly proportional to their ability to control Cost.

Profit = Market Price – Cost

In this type of situation, everyone is trying to control costs. The natural thing to do is try to understand where costs are. A common breakdown is by category.

Cost = Labor + Material + Overhead

Another way is to break down costs by function.

Cost = Engineering + Procurement + Quality Assurance + Accounting + Manufacturing + Logistics + Maintenance +

From this level of understanding, poor decisions are often made. For example, it is easy to look at labor and assume the quantity of labor is fixed. With that assumption, the only variable is the labor rate. This leads to off-shoring in order to reduce costs. Another pitfall is "silo" optimization. When costs are broken down and understood by function, improvement efforts tend to be functionally focused. When a function is optimized independently of the system it is a part of, the system as a whole almost always suffers. For example, the most efficient way to do logistics is to move large quantities of material infrequently. However, this rarely adequately meets the needs of manufacturing who now have to wade through piles of material on the shop floor. Let's finish here and explore further in next month's issue entitled, [UNDERSTANDING VALUE](#).

"Working with LMSPI has changed my opinion of working with consultants. Over the years, consultants would tell us how much money they could save the organization. When the time came to identify and implement solutions to achieve these cost savings, the consultants had misunderstood our manufacturing processes or were not available to work with our Engineers to develop solutions.

The difference with LMSPI is that they became integrated into our resources and manufacturing processes. They were actively involved with the data collection, solution proposal, and implementation of solutions. With the team effort from LMSPI, we achieved the cost savings and completed all projects on time."

Donna T. Alexander
Vice President, Manufacturing

Stay tuned!

This is Part 1 of a 3 part series on cost. In next month's newsletter we will continue our discussions on cost and understanding value!