



So why design like they were?



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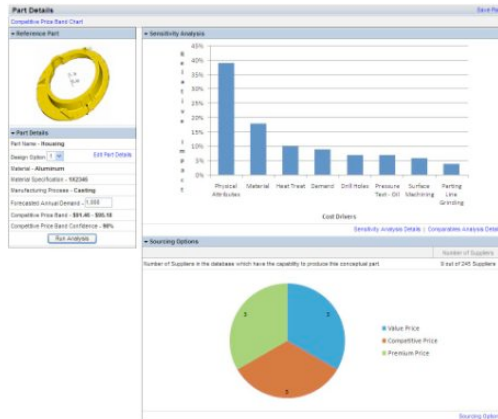
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Manufacturing

Better use of information could be the cure for ailing manufacturers

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Unless your company is also in the business of printing money for the U.S. government, there is a strong chance that the current global recession has riddled your corner of the aerospace sector with severe revenue loss, extensive layoffs, and painful cost-cutting. Even with the possibility of the industry benefiting from hundreds of millions of economic stimulus dollars, the recent appearance of a few “we see the bottom” harbingers only indicates that the road to recovery is still a long one.

However, in the midst of these conditions, successful companies realize that the best time to institute meaningful change and gain stronger market position is during a downturn such as this one. We are seeing capitalist Darwinism at its finest, and we will continue to see it until we consider the manufacturing sector as a whole to be recovered.

So how can companies do things differently this time, to take advantage of new ideas, to retain their talent—to make gains on their competitors?

As any economist will tell you, productivity is the cornerstone of growth. We are clearly in an age in which productivity is driven by access to, and optimal use of, relevant information. Jack Welch said, “An organization’s ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage.”

This applies now more than ever. Therefore, if you want to make gains during this economic meltdown, you better start digging deeper and smarter into your sources of information for the insights you will need.

Drawing critical insights from information—the “ultimate competitive advantage”—is not adversely affected by credit markets, does not require a bailout to be effective, does not even fall prey to acts of Congress. But it does require the application of a more intelligent approach to accessing and analyzing data.

A great success story comes from a large Midwestern manufacturer that, in its downturn, is pooling together hundreds of people from across the organization who would have normally been laid off. They are focusing the efforts of these people on innovative cost-reduction initiatives that will not only save enough money to pay their salaries, but create real changes in the organization—changes that will allow the company to emerge from the recession in a much stronger position.

And what is the key to success for this effort? Better mining and use of their critical product information.

The company is using a new type of analysis called competitive banding that digs deep into the recesses of its CAD file repositories and financial systems to put together a knowledge bank of relevant feature information (height, volume, quantity of drilled holes, weight, material, tolerances, manufacturing requirements, pricing, demand, suppliers, etc.) with powerful analytics. It is then dedicating the organization’s best analytical minds to using this knowledge bank in executing projects that rationalize their components, use more cost-effective materials and processes, streamline the supply base, and ultimately improve competitiveness.

In competitive banding analysis, manufacturing companies are able to directly tie individual component features to pricing and sourcing information across entire product categories to determine the drivers of competitiveness across all of their products. This allows them to proliferate new design ideas and rebalance their production and sourcing mix across all of their components for the ultimate lowest total cost mix.

Akoya’s new Design Workbench solution, which incorporates competitive banding analysis, is the central tool being used to support these efforts. Design Workbench allows its users to gain immediate insight into the cost-effectiveness of design alternatives anytime, from concept through production. This provides a significant advancement in lean product development practices.

In this example, the manufacturer launched several teams made up of the pooled resources from around the organization.

Each team conducted a series of 60 to 90-day competitive banding projects on its chosen set of components. The projects identified valuable actions for substitution, rationalization, sourcing, and/or design that can save considerable cost. Current cost savings from each project is enough to pay for up to 20 salaries per year.

At a company this size, the projects can collectively keep hundreds of the best talent employed and productive. It is a stimulus package in its own right. As the company comes out of the downturn, not only are the efficiency gains multiplied as revenues and volumes rebound, but the retained talented resources will help fuel its recovery and growth. It is poised to have true competitive advantage.

Now is the time for manufacturers to realize the potential in their information and understand that their current downturn creates the opportune time for unlocking it. Layoffs and "waiting for the storm to pass" are not the best methods to get through these tough times. They in fact become part of the problem. We should not cower from these stormy economic winds. We should use them to race faster and further than the competitors. Let's exploit this downturn.

Brett Holland, President of Akoya, wrote this article for AEM.

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