

# Success Is Based On People

**R**emember when the trade journals had long articles about the factory of the future? It was going to be an automatic factory with robots and all types of computers and software that would run 24 hours a day without lights. The subtle assumption was that we would eventually eliminate our labor problems through automation. The dream has always been to come up with a "magic bullet technology" that could be installed to solve the "people problems."

For many years, I was part of the automation process as a manufacturer of robots and palletizers. But, from my perspective, only the unskilled or semi-skilled jobs were eliminated. On the other hand, we created a whole host of highly-skilled jobs, to operate and maintain the system.

The future of American manufacturing is not going to be in making low cost, commodity products in high volumes. Most of these kinds of products have migrated overseas. The American manufacturer's advantage seems to be defined by customization, options, variety, fast turn-arounds, new technologies, and many new products. The future looks good for large, complex industrial products at low volumes. These kinds of products will require well-educated, well-trained, and motivated people who can design, operate, service, and maintain the products as well as react to the changing customer needs. I think this is an opportunity to gain a real competitive advantage against foreign suppliers if we can recruit and train the people.

## The Right Resources

In this day of layoffs and recession, how many companies publicly profess that people are their most important resource? More importantly, how many companies describe their people as an asset rather than an expense or a consumable commodity?

Despite the well known need for highly skilled workers, there is a continuous yet subtle assumption that technology solutions are the answer. The sellers of automation constantly push the end of the envelope with their claims of capabilities and savings. A good example is ERP and MRP software systems. In the last 30 years I have seen more systems that did not measure up to the original claims than I have seen installed systems that worked at the original price. There can be enormous

hidden costs in these systems and I have seen many of these systems double or triple from the original quoted price, and many that didn't work or did not produce enough benefits to justify the costs.

But in reality, it takes very good people to implement these kinds of systems and a real dedication to make them work. If the workers are trained and motivated they can often pull the project out of the fire and make it work somehow.

My point is that the technology you purchase is only as good as the people who operate and maintain it. In designing and installing automated production lines for many years, I found that the technological solutions we were providing were often beyond the skill and capabilities of many workers. Sometimes turnover was a problem and we constantly had new employees to train. Sometimes the company had not invested in bringing the skill levels up to the standards of the equipment in the plant. In all cases the *people* were supposed to somehow fit the new process, rather than adopting technology to fit the people or investing heavily in highly skilled people.

## "First We Build People"

The second issue is how the company views its employees. Toyota is the most successful and progressive auto manufacturer in the world. Their chairman, Fujio Cho, has said "First we build people, and then we build cars." The management systems are designed around this basic philosophy. In the publication "The Toyota Production System: Integrating People, Process and Technology" (2006, Productivity Press), the emphasis in many management principles is on people:

1. Establish customer defined value to separate value added activity from waste.
2. Develop a chief engineer system to integrate development from start to finish.
3. Develop a towering technical competence in all engineers.
4. Fully integrate suppliers into product development.
5. Build a culture to support excellence and relentless improvement.
6. Adopt technology to fit your people (rather than hoping the people will fit the new process).

You would think that respecting people and treating them as valuable assets would be obvious, but it isn't for many American companies. The Big Three U.S. auto manufacturers have tried to emulate many of Toyota's processes like Lean Manufacturing, but they just cannot compete. The history of the American auto manufacturers is a union vs. management attitude that has created a culture of distrust and disunion. This same attitude is also reflected in the suppliers who have been pummeled by The Big Three on price discounts and contractual issues for years. This attitude forced many of the tier one suppliers into Chapter 11 bankruptcy, and may eventually force many of the smaller suppliers into bankruptcy. You simply don't hear the American auto makers saying "First we build people."

## Beware The Magic Bullet

American manufacturing workers are the most productive workers in the world. They work long hours, are innovative and creative, and can be the most motivated workers in the world given strong leadership and support.

This fact is supported by data from the Department of Labor's productivity statistics. During the last recession as manufacturing employment declined by 3 million workers, productivity (as measured by output per hour) rose by 7 percent in 2002 and 6.3 percent in 2003. Over the last two decades, manufacturing productivity has grown by 94 percent, which is considerably better than the rest of business where productivity grew by 35 percent in the same period.

My point is that contrary to what you hear from the companies who sell software, computers, machine tools, and automation, technology is not a magic bullet that is going to solve a plant's problems.

Technology is simply the tool used by people who must do the work. If the workers are not motivated, committed, and trained, it doesn't matter how good the tools or the technology are.

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