Five Strategies for Growing as a Domestic Manufacturer

DEREK SINGLETON

By DEREK SINGLETON

Domestic manufacturing is an unexpected Cinderella story. As the United States clears the worst recession since the 1930?s, manufacturing has grown revenue for the 17th straight month.

Once thought to be in severe decline, the industry seems poised to make a comeback. This is welcome news for an industry used to shedding jobs offshore.

Manufacturing, however, is not out of the woods. To continue on this growth track, and remain competitive, domestic manufacturers will need to adopt new business strategies. Toward that end, we have surveyed the manufacturing landscape and identified five strategies that companies are using to remain competitive. Here we profile each strategy and present case studies illustrating how real companies are putting those strategies to use.

Prepare for Re-shoring Production

More manufacturers are bringing production back to North America. We think the three main drivers of this trend are:

- Increases in the cost of ocean freight transportation, which has increased by as much as 150% since the 2008 lows;
- Longer product delivery cycles that make domestic manufacturers less responsive to consumer demand; and,
- Poor production quality standards that have resulted in the delivery of defective goods.

In addition to these drawbacks, the rising cost of Chinese labor is prompting domestic manufacturers to reconsider their off-shoring habits.

Last year, Chinese inflation rose to 5.1 percent – its highest level ever. Sure, Chinese manufacturing remains far less expensive, but a trend toward higher costs is clear.

These factors, including consumers’ growing environmental and patriotic concerns, are motivating U.S. manufacturers to move their production facilities back to North America. An October survey of nearly 1,400 U.S. manufacturers found that 19% brought production into or closer to North America in the last three months.

Domestic labor costs may be more expensive, but manufacturers are finding ample motivation to re-shore. At the same time, these manufacturers are identifying innovative ways to reduce costs.

For example, Vaniman Manufacturing, a maker of dental parts, was initially drawn to China by the allure of labor costs 50 percent lower than domestic labor. However, Vaniman's labor savings were quickly eaten up by shipping and storage costs. This prompted Vaniman to leave China and locate their production in San Diego.

After the move, Vaniman realized cost savings from reduced transport and storage needs. Ultimately, Vaniman's costs are still 5 percent higher than the cost of doing business in China, but the manufacturer feels the premium is well worth it.

Invest In Your Workforce

Sourcing labor domestically is a challenge as costs are still higher in the U.S. than overseas. To overcome this barrier, domestic manufacturers should invest in workforce training to gain a skills advantage. Instead of focusing on competing on the basis of labor cost, domestic manufacturers should target productivity and skills. A skilled labor force will help push productivity much more than a relatively less productive labor force.

One company to see their workforce investment pay off is Aerofil Technology Incorporated (ATI). ATI recently invested in a lean training program that dramatically increased worker productivity. Workers were required to attend a full year of lean manufacturing training to improve worker efficiency.

In training, workers were taught how to identify and eliminate waste. The work of ATI's well-educated employees helped the company realize a 100 percent increase in productivity and double digit turns in inventory.

Domestic manufacturers should also offer workforce training to recent college graduates. Providing workforce training to this generation will help grow a skilled talent pool for the future. Caterpillar, the heavy equipment manufacturer, increases their labor pool by offering 2 to 3 years of training in human resources, engineering, logistics and more. After completing training, graduates are given professional placement in their division.

Design for the Developing World

Another opportunity for domestic manufacturers to realize growth in the coming years is to produce for the world's emerging markets. Currently, 55 percent of U.S. exports go to emerging markets. This trend is expected to remain strong, so domestic manufacturers should capitalize on the opportunity.

An area of potential for U.S. manufacturing lies in industrial manufacturing. The US still enjoys a competitive advantage in manufacturing machinery such as earth moving equipment, drilling and mining equipment, and high technology. As developing countries seek to industrialize, these products will be in high demand.

Domestic manufacturers should exploit this competitive advantage while it is still present.

In 2010, United Technologies, which makes everything from air conditioners to airplane engines, has seized the opportunity to sell products into markets undergoing rapid urbanization.

This year, United Technologies reported that their new equipment orders from China increased 15 percent. Today, a full 60 percent of their revenue comes from foreign sales. As developing nations urbanize, there is real opportunity for sales growth.

Master Supply Chain Visibility

Domestic manufacturers need to update their supply chain management technologies in order to remain competitive. Too many domestic manufacturers currently rely on spreadsheets and manual processes to manage their supply chains. This is inefficient, expensive and error prone.

To better manage supply chain operations and gain visibility into production, domestic manufacturers should invest in supply chain software. Supply chain software can automate supply chain planning, manage supplier relationships, and provide supply chain execution automation. By automating the process, manufacturers are able to gain productivity, more accurately plan production and reduce cycle times.

Kildeer Mountain Manufacturing (KMM) has gained efficiency by combining radio frequency identification (RFID) technology with supply chain execution software to track incoming inventory and production.

The real-time information provided by the software allowed KMM to cut their cycle times in half. The drop in cycle time increased output and allowed KMM to remain competitive.

Improve Environmental Responsibility

The final strategy for growth is to maintain a positive image by acting in a socially and environmentally responsible way. Why? First, consumers increasingly demand “green” products; this trend shows no sign of abating. Second, federal and state regulations are becoming more stringent. Third, it presents an opportunity for domestic manufacturers to reduce costs and potentially generate new sources of revenue. Let’s explore this last point.

Forty-five manufacturers in Wisconsin have formed the Profitable Sustainability

Initiative (PSI) to demonstrate how companies can go “green” and save money. These manufacturers identified annual logistics savings of $1.8 million. The areas identified for cost savings also boast impressive environmental savings. In the next year, members of PSI will reduce:

- Fuel by 68,800 gallons;
- CO_2 emissions by 758 tons;
- Oxides of nitrogen by 18,944 lbs; and,
- Particulate matter by 680 lbs.

How did they do this? The Wisconsin Manufacturing Extension Partnership uses a structured process to optimize all aspects of plant production, from materials processing to energy use.

For example, one Wisconsin manufacturing firm was able to save $360,000 in materials processing by reclassifying byproducts. Others were able to realize significant cost savings by retrofitting their facilities with energy efficient technologies (e.g. LED lighting). Domestic manufacturers that want an easy way to save should explore these options in their own facility.

In 2011 and beyond, we expect for more domestic manufacturers to implement “green” practices and realize cost savings along the way. Domestic manufacturers that put these strategies to use will be well suited for continued growth in the coming years.

A special thanks to Jason Busch, analyst at Spend Matters [1], for providing helpful insight for this article. For more information, please email derek@softwareadvice.com [2] or visit www.softwareadvice.com [3].

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