

Is U.S. Manufacturing Coming Back?

With all the political wrangling and positioning by both our major political parties and the talking heads on TV, sometimes it's hard to find encouraging news. However, I ran across this article in Inbound Logistics magazine. Since manufacturing is a big driver of flatbed freight and we are all concerned with the amount of production that has shifted offshore over the past several years, this article is of special interest. Ironically, Melton Truck Lines does a considerable amount of business cross-border into/out of Mexico and we have noticed that several manufacturers that moved from Mexico to Asia have returned to Mexico recently. Perhaps.....and hopefully there is some truth to this article.



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By Lisa Harrington

Shifting perspectives on supply chain management, coupled with the realities of total landed cost, are driving manufacturers to weigh the benefits of flinging production operations in China back to the United States .

U.S. consumers could see more products labeled "Made in the USA" on store shelves in the near future. As labor rates in China soar and manufacturers discover unforeseen complications at overseas production facilities, many businesses are revisiting the advantages of keeping operations close to home. But are the benefits of domestic production strong enough to spark a true U.S. manufacturing renaissance?

One primary reason manufacturers first looked overseas now leads the list of reasons to re-think offshoring.

"Within the next five years, the United States is expected to experience a manufacturing renaissance as the wage gap with China shrinks and certain U.S. states become some of the cheapest locations for manufacturing in the developed world," predicted global business strategy firm The Boston Consulting Group (BCG) in May 2011.

"All over China, wages are climbing at 15 to 20 percent each year because of the supply-and-demand imbalance for skilled labor," says Harold L. Sirkin, a BCG senior partner. "Net labor costs for manufacturing in China and the United States should converge by 2015. As a result of the changing economics, more products will be made in the United States in the next five years."

Industry experts refer to the resulting manufacturing move from China back to the United States as "reshoring."

Twenty-one percent of North American manufacturers surveyed by manufacturing sourcing Web site MFG.com in June 2011 reported bringing production into, or closer to, North America in the past three months, up from 12 percent in first quarter 2011. Thirty-eight percent planned to research such a move in the next three months.

This trend could greatly improve U.S. employment, says MFG.com CEO and founder Mitch Free, who cites "the multiplier effect," in which every manufacturing job can create up to eight ancillary and support jobs downstream in logistics, retail, and services.

Bullish on 'Made in the USA'

The strength of the manufacturing reshoring trend has believers and skeptics. On the believer side, BCG argues that wage rates in Chinese cities such as Shanghai and Tianjin will continue to increase over the next few years, making them just 30 percent cheaper than rates in low-cost U.S. states, after adjustments are made to account for American workers' relatively higher productivity.

Because wage rates account for 20 to 30 percent of a product's total cost, manufacturing in these areas of China will be only 10 to 15 percent cheaper than in the United States—even before inventory and shipping costs are considered.

"After those expenses are factored in, the total cost advantage will drop to single digits or be erased entirely," Sirkin says.

Companies considering building a new factory in China to make exports for sale in the United States are increasingly likely to get a good wage deal and substantial incentives in the States.

"Lower-cost states can supply highly skilled workers," says Michael Zinser, a BCG partner who leads the firm's manufacturing work in the Americas. "And workers and unions are more willing to accept concessions to bring jobs back to the United States." Finding skilled workers in the lower-cost regions of China, by contrast, can be difficult.

Global technology and energy company GE has put reshoring to work. In early 2011, GE moved production of its energy-efficient water heater from Chinese contractors to its own factory in Louisville, Ky., in order to accelerate cycle time and speed new product launches.

The company took advantage of a 2005 labor contract under which Louisville plant employees are paid an average of \$13 an hour, down from \$22 prior to the agreement. GE also earned state and local tax credits of \$25 million over 10 years, and federal incentives that encourage the manufacture of energy-saving products.

Making the device in Louisville already has allowed engineers to work closely with production managers and assembly-line workers to perfect the product's design via rapid prototyping. By improving the efficiency of the design process, GE has cut per-unit costs by \$20.

A Question of Balance

Labor cost savings are just one factor driving companies to reconsider manufacturing in the United States. To compete more effectively, a growing number of manufacturers are considering shifting operations closer to customers to provide better service, reduce total costs, and enable accelerated growth, according to a survey of 287 manufacturing companies, conducted by market research firm Accenture.

Companies are realizing that the physical location of supply and manufacturing operations can have a significant impact on overall competitiveness. An unbalanced network—where regional supply is physically separated from regional demand—makes it difficult for the organization to deliver on the very customer expectations that drive growth.

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"Getting closer to the customer allows for improved flexibility to respond to uncertain demand and unknown customer requests in an agile way with fast delivery times, while maintaining high quality and optimized costs," write study authors John Ferreira, executive director of Accenture's North American Manufacturing practice, and Mike Heilala, a senior manager in the same practice.

"The ability to do this may not always be the lowest-cost approach, but other value drivers that the customer may require, such as also having the ability to quickly supply customized product or customer-specific SKUs, may be more important," they add.

In some cases, offshoring has negatively impacted companies' competitive advantage, limiting growth and revenue. For example, nearly half of the Accenture survey respondents encountered problems with cycle or delivery time, and 46 percent experienced product quality concerns as a result of offshored manufacturing and supply operations.

A Total Cost Perspective

Manufacturers are beginning to recognize that many factors, such as component price and transportation costs, on which they previously based their offshoring manufacturing and supply decisions, have dramatically changed over the past few years—and those potential cost savings are no longer so impressive.

"In the first part of the rush to China, engineering and manufacturing leaders made outsourcing decisions based only on production and labor costs," notes David Morgan, CEO of D.W. Morgan Company, a global transportation and logistics provider based in Pleasanton, Calif. "Logistics wasn't invited to the party. Companies thought they would save 50 percent, but ended up saving only 10 percent once they factored in all the supply chain variables."

Many companies included only a small number of direct costs in their offshoring cost-benefit analyses, according to the Accenture study. They neglected to factor in such cost variables as taxes, country regulations, customer service, quality, inventory and other supply chain costs, human capital, and currency rates.

"This reliance on direct costs to the exclusion of other legitimate cost factors distorts the business case for offshoring, and likely many decisions to offshore were incorrectly made," Ferreira and Heilala note.

Although some industry experts support the reshoring trend, others believe it is too soon to say a significant shift is occurring. John White III, president of consulting firm Fortna, explains that the examples of companies reshoring to the United States are anecdotal, and don't represent a major trend. "I don't see a lot of companies reshoring from China, Indonesia, or other lower-cost countries," he says.

Companies may be pulling manufacturing operations from those countries, but they aren't necessarily relocating them in the United States. They may be nearshoring to Mexico, instead.

"Suppose I can manufacture a widget in China for \$2 but it costs \$1 to ship it here, and takes 80 days," Morgan says. "I can produce the same widget for \$2.50 in Mexico, but it costs only 25 cents to get it here, and takes 15 days. Nearshoring, then, is the better option." About 25 percent of Morgan's high-tech clients are relocating production in Mexico.

Global Sourcing Here to Stay?

Melville, N.Y.-based MSC Industrial Direct Company, a direct marketer and distributor of metalworking and maintenance, repair, and operations supplies, distributes approximately 600,000 industrial products from 3,000-plus suppliers to 320,000 customers. Global sourcing is here to stay, whether operations are in Mexico, China, or other countries, says Doug Jones, the company's executive vice president of global supply chains.

"There is just as much opportunity in global sourcing as there was five years ago—if not more," he notes. "We used to be focused on China, but our Shanghai office now is looking at a number of countries."

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There is pressure to source in America, and MSC Industrial Direct's product offering takes that into account. "The way we go to market is to have a 'Made in the USA' product in every category," Jones says.

Global sourcing does bring challenges, however. The company follows a rigorous process to qualify a new production source, with a focus on quality. MSC also weighs the impact of lead time on cost and service.

"We realize our service model increases from 10 or 15 days to 180 days from purchase order to receipt if we source in China," Jones explains. "We weigh the additional investment in lead time and inventory, currency valuations, and other factors, and make sure our total landed cost (TLC) still looks good."

Monitoring TLC is no small task at MSC, which maintains a global sourcing team dedicated to managing it.

Making the Right Decision

Many companies still struggle with manufacturing location decisions. To help them evaluate suppliers and markets, and make better sourcing choices, Stephen C. Rogers, former director, worldwide purchases mastery at Procter & Gamble, and executive professor, Williams College of Business, Xavier University, developed a nine-step query process (see sidebar, page 46). Rogers recommends taking a total landed cost approach, but being realistic about reshoring.

"It's expensive and difficult to bring manufacturing plants back to the United States, even if you kept the building," he says. "Companies underestimate the challenge of training workers and building self-directed manufacturing teams."

The "concentration of value" concept should also figure into the sourcing equation. "A laptop that sells for \$1,000 is small and very high value. You can ship a lot of them a great distance and it still makes economic sense," says Rogers. "Laundry detergent, however, is a completely different value equation. It retails for \$8 a bottle, so making it in China makes no sense."

Adopting a total cost approach to manufacturing location strategy is a complex task.

One way to determine production sourcing options is to focus on the business case and conduct a tipping point analysis. This assessment considers myriad factors from a supply chain perspective, including risk, flexibility, efficiency, and return on assets.

The tipping point analysis should begin with the product. "Start by asking whether you should limit, change, or modify your merchandising assortment," White advises. "These decisions create a ripple effect across the supply chain. Limiting assortment decreases inventory. Fewer products to plan results in better consolidations, so you can consider different modes and flows."

Once a company makes these decisions, it can evaluate tipping points. "Ask the question, 'If any of the assumptions and variables change significantly, at what point do I change my supply chain?'" White suggests. "For example, does a 25-percent transportation cost increase trigger a supply chain design change?"

How companies respond to tipping points varies depending on where they start. For a best-in-class company, for example, justifying a change typically is a bigger challenge because it may produce only a two- to three-percent improvement.

Rebalancing Supply

Recent reshoring and nearshoring moves by large firms suggest that, while there may not be a groundswell toward reshoring production to the United States, companies are rebalancing their supply to get closer to customer demand.

Over the next three years, nearshoring is likely to continue. The direction manufacturers take will depend both on their customers' requirements and on the product itself. More customized products, and those

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with less stable or difficult to predict demand patterns, will require carefully matching supply to demand location.

Products that require less human labor and are turned out in modest volumes, such as household appliances and construction equipment, are most likely to shift to U.S. production. Goods that are labor-intensive and produced in high volumes, such as textiles, apparel, and TVs, will likely continue to be made overseas.

As the reshoring debate rolls on, shifting perspectives on supply chain management, coupled with the realities of total landed cost, will persist in driving change. For now, the U.S. manufacturing reshoring trend remains neither all renaissance nor all hype, but something in between.