The repatriation of U.S. manufacturing: The case for bringing business home - For CEOs Tech Cell

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Some manufacturing work formerly outsourced to other countries is beginning to return to the U.S. What's behind this shift, and how can fabricators best position themselves to acquire some of this repatriated work?

In January 2004, per the Congressional Budget Office, U.S. manufacturing reached a historical bottom, with employment in the sector at its lowest since 1950. At the time manufacturing had lost some 5.2 million jobs since its peak in 1979. Factors in the decline included the recession that started in 2001 (the same year the People's Republic of China joined the World Trade Organization) and a drop in demand for manufactured goods, both in the U.S. and overseas.

Coupled with the rise of manufacturing output in China (which is now on par with Japan in terms of production), many analysts proclaimed U.S. manufacturing would never recover. Today, however, manufacturing firms—and those that order their goods—are spurring a reversal of that trend, with many actively rebalancing manufacturing strategies to include U.S. production. Savvy assembly and fabrication firms that recognize the underlying drivers can capitalize on this trend to enhance operations and improve bottom lines.

Market Forces

When an early adopter of overseas manufacturing, such as General Electric, announces its intention to bring business back to the U.S., everyone from industry analysts to corporate CEOs takes notice. However, extracting the underlying trend lines from this shift requires looking beyond the media hype.

International outsourcing certainly will continue as a viable and key strategy for manufacturing many products. For example, it would make little sense to bring products with supply chains that are now almost entirely international, like cell phones, back into the U.S. Likewise, with the rapid growth in domestic demand for products in developing countries like China and India, it also makes sense to develop production capabilities in those countries to serve their markets. The "Asia argument" also holds true for ultrahigh-volume products, such as electronics, that have few if any design alterations between models.

Nonetheless, GE and other repatriating firms (including corporate giant NCR) have discovered that for certain products and markets, U.S. manufacturing once again makes perfect sense. In particular, for lower-volume, specialty items for which design changes are fairly common, the case for U.S. manufacturing is far more compelling. U.S. companies that have started insourcing point to the superior agility, speed to market, and quality they find with U.S. fabricators and manufacturing operations.

In its decision to bring ATM production back to the U.S., NCR cited hassles sorting out production glitches, the resolution of which forced design engineers to fly around the globe. Throw into the mix the potential for design alterations in the event of a flaw or other late-breaking issue, and the cost of

"cheap" manufacturing soars.

Customer-Driven

Another factor fueling insourcing of manufactured goods is that customers are increasingly demanding green supply chains. This is similar to the trend in the ’70s and ’80s when customers began to demand that supply chains be ethical in managing their human resources — no child labor, safer working conditions, and better treatment of employees. The pressure for demonstrating the use of green supply chains is especially evident in Europe and the U.S.

Often referred to as a crisis, the environmental challenges faced by China are substantial. Explosive growth has led to severe pollution and environmental degradation. Environmental quality issues in China have become so pervasive that the government is placing stiff export duties on certain high-risk products produced there to encourage firms to go elsewhere. As China makes the investment necessary to clean up its manufacturing, mining, and power generating operations, there will be new inflationary pressures on the price of products and services produced.

Mexico, once the "North American alternative" to China, also faces environmental challenges. As reported by the U.S. Environmental Protection Agency in its “U.S. - Mexico Border 2012” report, the low-cost manufacturing region along the U.S.-Mexico border suffers from “abysmal air and water quality” and a host of negative environmental health problems. Efforts to clean up this supply chain almost certainly will increase the cost of producing products in the region. The U.S.-Mexico supply chain must also address increasingly serious issues related to political instability, drug wars, and concerns regarding international terrorism. In short, the “Mexico option” is also not as attractive as it once was.

The U.S., conversely, is known for its strong environmental quality controls, as well as for other positive stances on issues such as workplace safety and human rights that are tipping the scales in favor of production here. Furthermore, firms with a strong customer base in the U.S. or Europe can realize substantial reductions in their environmental footprint (not to mention shipping costs) by not importing items from halfway around the world. Finally, customers are increasingly demanding sustainability and lean operations from their manufacturers, two areas where the U.S. has a much better record of success than some other countries.

Dollars and Cents

In addition to the agility, quality, and sustainability benefits of insourcing, companies are reaping solid financial payback from it. Because of the time lag involved with bringing products from overseas, companies cannot simply look at the price of a product plus freight to determine their import expense. They must consider the many and significant indirect costs: increased inventory, increased material handling, increased impact of quality problems, and negative impact on cash flow. None of these factors support lean manufacturing practices. International outsourcing also can incur significant costs from lost or miscalculated opportunities, especially for items that are seasonal or for which demand unexpectedly exceeds supply. If a firm is forced to use air freight to bring products to market, the cost per item skyrockets.

Another financial issue is the danger of currency shifts in the Chinese yuan versus the U.S. dollar. Since 2006 the yuan has shifted in value from approximately 8 yuan per U.S. dollar to 6.6 at the time of this writing. In other words, in 2006 50 yuan bought a product costing $6.25; now that same product costs about $7.50.

Take all of these factors into account, and some estimates indicate the price differential between U.S. and Chinese manufacturing operations has dropped from 22 percent in 2008 to 5 percent today. Given the other negative factors mentioned earlier, outsourcing to China has become a matter of saving nickels to spend dollars on logistics, lost flexibility, and eroded customer good will.

Capitalizing on Competitiveness

Of course, for fabricators and manufacturing facilities to attract new customers from these attitude shifts, they must actually achieve the goals these companies seek. Becoming ISO 9000- (international quality standard) and 14000- (international environmental standard) certified is an important step for those firms that want to promote their dedication to quality and green principles. Likewise, firms that want to strike a lean stance must focus on reducing waste throughout their operations, which supports both cost competitiveness and green principles.

Companies looking to source their products in the U.S. also seek evidence of stable growth and business momentum from their partners, paired with a dynamic spirit and nimble operational model. The U.S. is still the world's largest manufacturing economy, producing $1.6 trillion of goods each year (21 percent of global production, nearly as much as Japan and China combined).

In addition to industrial behemoths like Intel and Boeing, thousands of smaller manufacturing, fabrication, and assembly firms are producing best-of-breed, signature products for an increasingly appreciative market. Firms that exhibit passionate dedication to excellence in their operations and encourage it among their personnel will be best positioned to capture the wave of repatriation now hitting U.S. shores.