

The Reshoring option: Maybe it's time Bringing production back has its own set of challenges

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The common perception is that manufacturing jobs left the U.S. decades ago for low-cost labor overseas, and the country has settled into its international role as a service economy. Actually, government data shows the high point in manufacturing jobs was in 1978, with levels remaining steady as late as 2000, followed by a decline in the number of jobs as well as the sector's percentage of the total economy. Although we are settled into the build-it overseas paradigm, a number of factors are causing U.S. manufacturers to consider moving production back home.

Companies receive a lot of fanfare when they move manufacturing back home, and there is definitely evidence that this transition, termed Reshoring production ("Reshoring") is increasing. A non-profit organization, the Reshoring Initiative, estimates that 80,000 jobs have been

added to the U.S. since 2010 through Reshoring, providing a job multiplier effect equivalent to 160,000 jobs.

Apple, General Electric, Google, and a growing number of other companies have brought some level of production back to the United States, but, at this point, the reality is that the transition is more of a trickle than a torrent. While companies add production in the improving economy, they still continue to add production overseas. A survey by the Boston Consulting Group released in late 2013 found that most large U.S. companies plan to move some production from China back to America, or are considering it. There's enough logic behind Reshoring to make it a bona fide trend that could result in a long-term balancing of the supply chain.

What are the driving factors and how could Reshoring benefit my company?

Several factors are driving Reshoring. These factors can be broken into three categories; landed cost, hidden cost, and risk management. Companies can avoid international currency fluctuations, tariff and logistics headaches, and better protect trade secrets and patents by producing in the U.S. The abundant supply of natural gas in North America helps keep operating costs reasonable, and local and state governments are eager to recruit manufacturers by offering tax incentives and enterprise zones. Most importantly, companies are analyzing the competitive advantages of better quality control and a shorter, more responsive supply chain, which are keys to a constantly changing technology-driven marketplace.

By definition, Reshoring is bringing production back to the U.S. In general, the move to Reshore is being driven by a shrinking gap in landed cost per unit for the developing world relative to domestic production. However, there are a variety of hidden costs, business risks, and organizational fatigues associated with having an elongated supply chain and managing a far-flung operational footprint. Disassociating from countries with sometimes questionable business practices such as China, India, and Mexico is an added benefit to Reshoring. Lastly, many U.S. municipalities are offering tax-abatements, grants, and other incentives in order to attract manufacturing employment to their region.

The main item driving the Reshoring phenomenon is a rapidly shrinking gap in landed cost between the developing world and the United States. Labor costs in China are rapidly inflating, while U.S. labor costs have remained flat for over a decade. In fact, the Boston Consulting Group estimates that total cost for manufacturing in China and the U.S. will converge by 2015.

The boom in domestic natural gas production has created a huge cost advantage for domestic manufacturers. This phenomenon has led to a dramatic cost differential relative to other regions of the world. Not only does natural gas power the nation's factories, but it is also a key raw material of certain products, such as plastic, ammonia, hydrogen, methanol, and feed stocks. Also, over the last decade, the Chinese renminbi has seen a 30% appreciation relative to the U.S. dollar.

In addition, there is the cost of managing remote suppliers or production facilities. While most companies usually factor in certain costs associated with travel to the production sites, many companies underestimate the managerial requirements of global business. This leads to a situation where the business is inadequately staffed in either numbers or capability relative to the new business requirements.

Another area that is typically not fully considered is the cost associated with an elongated supply chain. With lead times reaching eight weeks, any production disruption or quality issue can become very expensive to a manufacturer. The age-old desire to have a transportation mode that is "faster than a boat, but cheaper than an airplane" appears to be destined to outlive us. Thus, small disruptions in supply can become quite costly when airfreight is required, rather than risking delayed production, to keep customers satisfied. Also, a quality issue discovered at the customer may require the screening of the more than two months of inventory sitting on ships between the factory and the customer.

The one aspect that is rarely understood and almost never calculated is the "hidden cost" associated with foreign production. Traditional low-cost manufacturing countries inevitably have a very large, elephant in the room: corruption. According to Transparency.org, countries such as China, Malaysia, India, and Mexico all have Corruption Perception Indices of below 50 on a scale of 100 (with 100 being the least corrupt). Corruption manifests itself in a variety of manners, including illegal payments, the deliberate omission of quality processes, theft of intellectual property, and violation of human resource laws.

Even once all costs are identified, there are still business risks that must be assessed. Is your organization willing to accept the risks associated with an eight-week supply chain? Do you feel comfortable ensuring that there's no oversight of quality? Will your plant or supplier be part of a scandal related to environmental issues or worker rights? Can you endure the potential public relations issues associated with fraudulent or scandalous activity? Is your business valuation based on the intellectual property associated with your product, and can you risk having this copied? All of these questions must be addressed as part of your global manufacturing strategy.

Build an analytical model

Moving production back home is not a simple matter, and critics of Reshoring have valid points. Companies do everything they can to keep employee counts low. A robot does not suffer from repetitive motion injuries or other fatigue. There is a greater abundance of highly skilled workers overseas today than ever before, — and a shortage in the U.S. Critics argue that there is also an experienced management shortage, an insufficient ecosystem, a lack of scale, and in some cases, lack of political commitment.

Middle market companies don't have the resources and international sophistication of large multinationals. Smaller companies do not have the capital to take the risk of rebuilding the domestic supply chain. New supplier arrangements must be made. Plant location near supplier networks and a well-trained workforce is particularly important. Do you build redundant tools or ship the existing tools from overseas? What is your inventory strategy to support the transfer? Who owns the tooling and how do you transfer it effectively to the U.S.?

Companies also need to create a project plan, or model, for the transition. If a foreign contract manufacturer hears you are leaving, the supplier could refuse to issue credit for accounts receivable, thereby creating a cash on demand situation, or just stop working for you altogether. If you have a foreign legal entity, liquidation might be challenging depending on the local laws. Moving cash out of a host country can be difficult to impossible. In short, there is no telling how the host country will react.

The decision model should take into consideration tax implications and strategies, as well as real estate analysis. The company should factor in all costs, including transportation, energy costs, inventory, wages, and other supply-chain-related costs. Once assessed, a decision can then be made as to the appropriate course of action.

Companies that made the move

Based on information collected by the Reshoring Institute, many companies have successfully Reshored.

GE invested \$800 million in Appliance Park, bringing back the production of water heaters, refrigerators, washers and dryers. The union facility in Louisville, KY, employs over 1,300. The company found that collaborating on design with employees was easier. In addition to tax incentives to return to the U.S., the company cited inventory and delivery problems and rising total cost of production in China.

Scovill moved a button plant from China back to Clarkesville, GA. The reason for the move was higher labor costs, the rising Yuan, and a quarter of their Chinese employees did not return to work after a holiday.

Bailey Hydropower moved from its 100,000 sq. ft. hydraulic cylinder facility in Chennai, India, back to a 60,000 sq. ft. plant in West Knoxville, TN. The reasons cited were faster delivery and fewer supply chain and quality issues.

Motorola recently moved production of its flagship smart phone, the Moto X, from China to a Flextronics plant in Fort Worth, TX. About 2,000 employees are expected to be hired. Besides the marketing appeal of "Made in America," the company said it could innovate and make repairs more quickly in the U.S.

Local governments can make it attractive to Reshore. When appliance maker Electrolux was deciding whether to move its Canadian plant several years ago, it considered Juarez, Mexico, and Memphis, TN. Memphis contributed land and cash, making it too attractive to turn down.

Conclusion

In 1978, the U.S. saw a high of 19 million manufacturing jobs and there were still as many as 17 million in 2000. It was followed by a sharp decline and the numbers have decreased every year, with small exceptions during the past two years, to just under 13 million. Expressed as a percentage of total U.S. employment, manufacturing has declined steadily from 20 percent in 1940 to about 10 percent today, according to the U.S. Department of Labor, Bureau of Labor Statistics.

As things stand today, Reshoring must prove it is more than a public relations stunt. The loss of manufacturing plants and employment continues to be a major trend, but with competitive incentives and benefits, the outlook of Reshoring is promising. While it won't bring us back to the manufacturing employment levels of the 1960s and '70s, Reshoring can help balance the supply chain with some components made here, some overseas, and some "near-shoring" in Mexico for certain products. To reap the benefits of Reshoring and avoid difficulties during transition, companies should carefully plan for and execute their Reshore move to ensure that their supply chains are not disrupted.

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