CSCMP's Supply Chain [QUARTERLY]

Going offshore? Look before you leap

Companies looking to source overseas because of cheap labor may be in for some costly surprises.

ALL OVER THE WORLD, HEADING OFFSHORE TO OUTSOURCE PRODUCTION has become so commonplace that it is now accepted as the norm. Offshoring does indeed make sense for many companies, especially those that want to establish a global footprint. Too many, however, outsource production for the wrong reasons.

Lured by the promise of cheaper labor, they are blind to the tactical costs of manufacturing overseas. While they may save money on unskilled labor and by achieving economies of scale, they ultimately will pay more because of longer lead times, increased inventories, the need for more management resources for planning and logistics, and constraints on their ability to respond quickly to changing demand.

Despite these and other hidden costs, offshore manufacturing has become a fact of life. Now the challenge for many companies is to manage the resulting global supply chain effectively. They can accomplish this by conducting thorough research, developing a logical strategy, and managing proactively to prevent problems. Effective management also requires establishing open communication with suppliers about expectations, especially when all requirements are contractual.

If you are considering offshoring some or all of your manufacturing, the following will provide a basic guide to the potential problems, business considerations, and success strategies associated with this increasingly common practice.

Know the pain points

No matter what business you're in, you will find that offshoring brings many pain points to the fore. When outsourcing some or all of your operations, you will have to deal with longer lead times. Their length will be determined by the complexity, variation, and shipping times for the parts or products involved. Longer lead times will also require you to forecast inventory needs more accurately.

In addition, you'll confront cultural and time-zone differences that can make communication difficult and can engender misunderstandings. You'll need to address issues

[BY KEN KOENEMANN]


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of product integrity, quality, and variation. Sometimes you may encounter impractical shipping options. And you may have limited or no visibility into the overseas operation, making it difficult to identify a problem before it's too late to fix it.

The most pressing of these problems are lead times and quality issues. There's no getting around the fact that transit times, not to mention often-forgotten factors like holidays, vacations, and the like in the manufacturing country, will greatly increase a product's lead time. Because every company wants to have sufficient products on hand when its customers want them, you will likely have to stockpile inventory—and that will incur enormous costs in capital and warehousing. Accurate, effective forecasting will help, but even the best forecasts won't remain accurate when they must be firmed up two to six months in advance of production.

Additional pressure to stockpile inventory can result when sourcing a single item from an overseas manufacturer that insists on shipping full ocean containers. This requirement forces you to buy more of a product than is needed at a particular time, which adds inventory, transportation, and storage costs. Moreover, many Asian manufacturers require cash up front for their services. All of these factors can force your company to make larger capital investments than intended.

Another critical issue is maintaining product quality and integrity. A number of incidents involving manufacturers in Asia that produced substandard or unsafe products have made the news recently. Involvement in such a scandal can cost you—not only in lost profits but also in brand loyalty. It's hard to gain back trust once it's been lost.

Quality issues often are closely tied to a lack of visibility into offshore manufacturing operations. If you choose to manufacture overseas, you must be willing and able to closely oversee those operations (or hire someone trustworthy to do so) to ensure that quality standards are being met.

Given all the potential problems associated with offshore manufacturing, you might wonder why anyone would want to do it. The reason is that, at least for some, the benefits outweigh the pitfalls. To make sure that is indeed the case—in other words, that it is not just a matter of *perception* and that the benefits actually do outweigh the negatives—you'll need to do extensive, thorough, and accurate research before going ahead.

Research first

It goes without saying that nobody should jump right into something as complex and fraught with pitfalls as offshore manufacturing without first doing extensive, careful research.

One mistake companies often make is focusing on the lowest purchase price per item instead of considering the total landed cost of sourcing from offshore suppliers. Total landed cost includes such cost factors as transportation, port charges, duties and taxes, insurance, and material. It also includes internal, "soft" costs, such as those for capital tied up in excess inventory and storage and for often-overlooked considerations like the cost of handling inefficiently loaded containers.

Not all products are suited to offshoring. The ones that are most suitable may be those that have long lifecycles, are simple and cheap, do not undergo frequent design changes, will be sold or used in the region where they are produced, and/or require significant manual labor inputs.

There are several reasons why these types of products make good candidates for offshore manufacturing. For one thing, when products have longer lifecycles, there is less risk associated with carrying enough inventory to compensate for long lead times. For another, it may be more cost effective to outsource items that are cheap enough that quality isn't a concern; that is, if it's less costly to scrap bad parts overseas than it would be to manufacture in the home country to the quality standards required to avoid scrapping bad parts.

Other strong candidates are parts or products that will be sold near the site of manufacture or will be shipped to another offshore location for assembly. Manufacturing products in the region where they will be sold results in shorter lead times, lower inventories, improved customer service, and higher profits. Moreover, buying a component offshore for use in an assembly that is produced in the same region improves lead times and flexibility while reducing working-capital requirements.

Finally, when it comes to labor, the value-added content can be as important as the cost of wages and benefits. When a product with low value-added content is manufactured in a process that eliminates waste, it may actually be cheaper to produce it locally rather than offshore.

After determining which products are suitable for outsourcing, it's time to consider where to produce them. Not all offshore locations are created equal, and—as noted earlier—cheap labor shouldn't be the only deciding factor. While investigating various locales, consider not only labor costs but also managerial costs (which may not be as inexpensive as many people assume); protections provided for intellectual property; the availability of utilities and other infrastructure, including associated trade-offs (for example, good roads versus poor roads); and local culture—especially as it pertains to business and legal practices.

All of these considerations will come into play in another important step: creating a "value-chain map" that captures all of the costs and operational data (such as cycle times, inventory, and so forth) associated with your product's journey from the offshore facility to its final destination. Visualizing each point in the value stream, from order to delivery, makes it possible to predict where problems might occur—and to take steps to prevent them from happening.

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Prevent problems

Once you've completed that "homework" and (with the aid of a value-chain map) have developed plans to address every identifiable contingency, you can take steps to help ensure the success of your offshoring venture.

Perhaps the best advice is to do everything possible to avoid problems in the first place! And that's essentially what the following suggestions are all about. They may seem quite basic, but these preventive measures are often overlooked when companies focus simply on cheap labor.

- Perform comprehensive assessments of offshore suppliers to ensure that they are capable of meeting your expectations. Look at areas such as manufacturing capabilities (such as productivity and quality) and capacities, quality systems, technology and technical expertise, ability to comply with specifications, cost structure, and financial stability.
- Lay out terms for agreements and partnerships in contractual form. Specify exactly what you need with respect to quality, cost, delivery, and service.
- Communicate regularly and clearly with offshore suppliers. Don't assume that an offshore manufacturer understands what you require. Put expectations in clear, unambiguous writing, especially with respect to quality, and be prepared to follow up.
- Use key metrics and a scorecard system to understand if product is flowing as planned. Establishing a system for tracking and measuring performance—much like those you use on the home-based manufacturing floor—will allow you to assess offshore performance at a glance and will provide early warning when product flow is getting off-track.
- Visit offshore manufacturing sites regularly to find and solve problems before they become big enough to affect your company's ability to profitably meet its customers' requirements.

Weigh the facts

Offshoring can be a logical and cost-effective way to improve your company's competitiveness, but as we've seen, there's more to it than simply choosing a manufacturing site or finding a contract manufacturer overseas.

Ensuring success requires learning and weighing all of the facts before contracting with an offshore supplier. Map the value chain, understand your total landed costs, visit the potential supplier, and thoroughly assess its capabilities to be certain that the right partner has been selected. Once you've chosen that partner, document all of your requirements regarding order volumes, product specifications, and operational details in the contract. And finally, monitor offshore suppliers no differently than you would your own manufacturing operations.

Going offshore can improve your competitiveness and open up new markets; just remember to make that decision based on facts that take *all* costs into account. And once you've decided to manufacture overseas, stay vigilant and continue to carefully monitor and manage your supplier. △

Ken Koenemann is the managing director for the Lean Value Chain practice at TBM Consulting Group, Inc. He can be reached at kkoenemann@tbmcg.com or at 800-438-5535. Learn more about how we approach lean value chain improvement at www.tbmcg.com/lvc.