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The Hidden Costs of Outsourcing to China

From training to supply chain management costs, they're real and worth exploring.

By Shoshanah Cohen and Mark Stonich

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Why do companies outsource their manufacturing operations to another country? According to our recent survey of 180 companies, conducted with *World Trade* magazine in July and August 2003 ("The Global Enterprise: Understanding the Accelerating Trend of Core Business Activities' Offshore Transfer"), there are myriad reasons, which include:

- Achieving greater production flexibility
- Expanding capacity
- Improving product quality
- Enabling better focus on core competencies
- Reducing investment in capital assets
- Achieving a global manufacturing presence

But the most common reason why companies consider an offshore manufacturing partner is to save money: Fully 40% of the survey respondents listed lower costs as their primary driver.

It follows, therefore, that companies look to countries with low material and labor costs when establishing their outsourcing strategy. And with the world's largest low-cost labor force, China offers a highly compelling cost structure. In 1990, less than 17% of U.S. imports from China were deemed "higher value goods," which include products such as semiconductors, electronics, and electronic equipment. By 2001, the percentage of "higher value goods" imported from China to the U.S. had more than doubled to almost 36% (Alan Tonelson, "China Trade: Increasingly High-Tech, Increasingly Head-to-Head," TradeAlert.org, October 30, 2003). This significant growth in its high-tech manufacturing base over the last decade makes China especially attractive to technology-based companies that face constant pricing pressure.

Moving manufacturing operations from the U.S. to China does not necessarily translate into lower total product cost. While labor rates and material costs are easy to quantify, many other costs are not. These include the somewhat intangible—but very real—costs associated with managing cultural and language barriers, overcoming limited supply chain expertise, and coping with a supply chain rendered far less flexible because of the physical distance between the company and its manufacturing partner. In fact, the savings associated with lower labor and materials costs in China may be offset by these incremental costs.

Unfortunately, many companies only understand the magnitude of these costs after the fact—that is, after they are already far down the outsourcing path. Then they discover just how difficult these outsourcing relationships can be to develop, sustain, and improve. They also learn that managing a Chinese manufacturing partner can require a very different skill set from managing a partner in other countries.

Inherent Difficulties with China Partnership

In our experience, several factors contribute to this difficulty. First, the language barriers with mid- and lower-level management can be more challenging than in many other countries. Mexico and Eastern European countries such as Poland and Hungary, which are major manufacturing "destinations" for U.S.-based companies, boast large English-speaking workforces that are comfortable communicating directly with their American partners. Conversely, many workers in China come from rural areas and have less formal education, making communication a major challenge.

Add to the language barrier the fact that many Chinese companies have limited experience with capitalism and with industry-standard supply chain management processes. Their experience may be limited to that provided by their current customer base, making them likely to apply the supply chain practices used for existing customers to any new customers. New products, technologies, manufacturing strategies, or overall supply chain structures can result in long learning curves and increased time to implement new supply chain and operations processes.

The lack of experience and expertise can be compounded by cultural barriers. The typical Chinese company is hierarchical, with tremendous emphasis placed on titles and reporting relationships. Decisions are made by executives and managers and communicated to other employees as pronouncements, not suggestions; this often means that lower-level employees do not question inefficiencies or substandard practices, and, as a result, there is little incentive for proactive decision-making at the lower levels. This is changing as Western companies interact increasingly with plant personnel, but this cultural barrier will take time to soften.

Finally, China's manufacturing capacity has expanded at an extremely rapid rate. Between 1993 and 2001, China's gross industrial output rose from U.S.$480

billion to U.S.$1.14 trillion—an increase from 2.4% of estimated global industrial output to 4.2% in just eight years (Glen Hodgson and Mark Worrall, "China: An Opportunity, Not a Threat," *Asia Economist*, May 2003). The supply of skilled employees has not been able to keep pace, which means that while a factory may be built and ready to produce, it might lack sufficient human resources—including management staff and direct operators—to keep it operational at efficiency levels expected by Western companies.

Attracting skilled operating and supply chain personnel is no small feat. And training them is challenging as well: It can take several *thousand* hours to train an electronics technician. Recognizing that required skills are in short supply, the Chinese government has sponsored all-expense-paid visits to China for potential recruits and holds recruiting fairs in Silicon Valley and other high-tech corridors. China's Minister of Science and Technology, Xu Guanhua, points out that China is carrying out a human-resource strategy that strives to attract high-caliber individuals throughout the world to work in China.

In a study commissioned by a PRTM client in October 2003, we reviewed the operational and supply chain capabilities of more than 70 contract manufacturers (CMs) and Original Design Manufacturers (ODMs) with production facilities throughout mainland China and in Hong Kong and Taiwan. These companies currently operate in 17 geographic locations, including Beijing, Cixi, Zhuhai, Dongguan, Dongguan City, Guangdong, Guangzhou, Hong Kong, Kunshan, Nanjing, Qingdao, Shanghai, Shenzen, Suzhou, Taiwan, and Tianjin. Most plan to expand their operations in the near future by adding new manufacturing capabilities and building additional sites.

This planned expansion is not surprising—Asian CMs and ODMs have been negatively affected by the recent economic climate and are looking for ways to expand their revenue potential. That means becoming both broader and deeper to attract a larger customer base. The breadth of manufacturing services and supply chain management capabilities planned by the companies surveyed, combined with the large number of manufacturing sites they intend to build, are staggering. Their activities will likely exacerbate the existing challenge of maintaining a high level of expertise in all required domains.

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Effective relationship management requires a "high-touch" approach. Both partners must be in close and constant communication throughout the selection, design, implementation, and steady-state management relationship phases. And as with all supply chain partnerships, carefully coordinated change management is critical to success.

It is easy to misjudge the effect a long-distance relationship—and the associated language, cultural, and time-zone challenges—will have on product release cycles, production planning, and other ongoing communications. As a result, companies often underestimate the travel costs to conduct live working sessions with an outsource partner. Heavy travel may be required for months, if not several years.

Many companies also fail to consider the incremental costs associated with a manufacturing operation in an area of the world far removed from the end customer. These costs can be monetary or they can be related to customer service, taking the form of high transportation and expedite costs, reduced supply chain flexibility, low inventory turns, high inventory obsolescence, and poor delivery performance.

Companies that plan to do the bulk of their shipping via ocean are often forced to turn to air shipments far more often than planned. This is done to offset the inflexibility of a supply chain that has four to five weeks of product in transit at any given time. Unless you have excellent forecast accuracy or a product that is easily configurable once it arrives in the U.S., you should pay close attention to the assumptions you make in planning transportation and logistics costs.

Why Go to China?

With all of these potential hazards, why do so many companies outsource to China? Because the promise of low labor and material costs is very real. Depending on the product, moving production to China may offer a tremendous cost advantage. But companies need to pay close attention to the less obvious costs of outsourcing. We recommend the following key activities as part of your due diligence.

Take all potential costs into account when conducting your evaluation—Use the list of costs in this article as a starting point, but also talk with companies in related industries that have outsourced their production to a Chinese manufacturing partner. Even a brief conversation can be invaluable. Our work with clients shows that companies are much more successful in building subsequent outsourcing relationships than they are the first time around. Learn from others' experiences before taking on such a significant challenge. You may learn about pitfalls to avoid and will have a more comprehensive list of quantitative and qualitative factors to consider.

Make sure that the products you plan to outsource are well-suited to manufacturing in China—This will be a primary driver of your total cost analysis. Our rule of thumb is that products that are mature and do not require leading-edge manufacturing capabilities are the

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most likely to result in near-term cost savings if moved to China. These are products with clearly established manufacturing procedures that will have a much flatter learning curve when relocated to a new facility. These products also require less management attention and sustaining engineering. With all the manufacturing "bugs" shaken out, it's much easier to train and monitor the performance of a manufacturing site that is not in your direct control.

Ensure that you have the internal resources to manage a high-touch relationship—The way companies engage and manage outsourcing partners in China is crucial to their success—a "high-touch" model has the highest probability of success. That means clearly defining what is expected of each partner, ideally through a documented joint service agreement (JSA) that supplements any legal contracts, enables both parties to understand their priorities, and encourages continuous improvement on both sides.

In addition, you should ensure that you have a sufficient number of effective supply chain personnel who have had experience managing the transition to an outsourcing strategy and in working with a Chinese manufacturing partner. You need people with appropriate language skills, or, barring that, the ability to work effectively with others who may not be fluent in English. Previous experience is a major factor in easing such a transition—so if your company is doing this for the first time, make sure the people managing the transition are not.

Co-design and co-implement supply chain management best practices with your outsource partner—Don't assume your existing processes will support the new supply chain configuration. The same manufacturing work instructions that are well-understood in your local facility may be incomprehensible to your new partner. Variations in equipment, techniques, and skill sets may require that the entire manufacturing process be re-evaluated and re-crafted to work within the new environment.

The same is true for other core supply chain processes. For example, you will likely have to make fundamental changes to your planning and sourcing processes to work within an outsourcing model. That means that the same key staff members who will be managing communication and cultural issues must also understand what it takes to transform core supply chain processes from your jurisdiction to your partner's.

Don't rely on your prospective partner's sales pitch to determine its level of supply chain expertise—A word of caution: Many CMs and ODMs sell "world-class" supply chain expertise that is based on their overall customer base and not necessarily the manufacturing site your company is considering. Many manufacturing service providers operating in China have grown through acquisition. Assimilating new companies and facilities and achieving consistency in how the overall supply chain is managed take time and a great deal of management attention.

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Understand the capabilities within the site to which you are considering a transition. Forget about any showcase facilities you may have toured at the start of your selection process. You will be getting the expertise at "your" site only, so make sure it can handle the specifics of your products, processes, and volume.

The key to success is making sure all relevant costs and product characteristics are considered. Take into account the mistakes other companies have made. And don't underestimate the difficulties in implementing and managing a manufacturing operation overseas. Do the homework and relationship-building up front that will enable a successful and profitable long-term relationship.

CONTACTS

Western U.S.: PRTM Director Shoshanah Cohen at scohen@prtm.com or +1 650 967 2900

Eastern U.S.: PRTM Director Rick Hoole at rhoole@prtm.com or +1 781 434 1200

Europe: PRTM Director Joseph Roussel at jroussel@prtm.com or +33 (0) 1 56 68 30 30

Asia: PRTM Director James So at jso@prtm.com or +81 (3) 5326 9090

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