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### **WEB EXCLUSIVE!**

What Your Mother Never Told You About Outsourcing to China

Thinking about moving your manufacturing to China? It's not an easy process, so be sure it's the right decision.

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China. The world's factory. Low cost. Fast-growing economy. Capabilities range from product design to manufacturing. It has a large skilled labor pool. And everyone seems to be outsourcing something there. As such, a medical device manufacturer might ask, "How can my company take advantage of it?" You can guarantee that product development firms hear this from every other client that walks in the door.

The truth is, the best way for you to take advantage of the "Chinese miracle" might be to either avoid it completely or, perhaps, hope your competition outsources there. That's not to say that China cannot be an attractive outsourcing candidate. But chances are that it isn't right for you or your medical product. This article explains why China is not ideal for all medical devices. But to help you decide for yourself, this article also provides a simple tool for making such a decision.

### **Why All the Urgency to Outsource to China?**

Let's start by understanding exactly why China can appear so attractive in the first place. To be blunt, there are a lot of North American businesses outsourcing something to China in a variety of industries. They must have good reasons for doing so. The primary drivers include the following:

- Low-cost labor, which translates to low-cost R&D and manufacturing.
- Perceived faster time to market (round-the-clock design and manufacturing).
- A multi-billion-dollar competitor does it (aka Big-Box Retailer syndrome).

Unless a company is designing and building products for sale in the Chinese domestic market, the most persuasive attraction is simply low cost. China takes advantage of labor rates that are currently an order of magnitude less than that in the United States. The country highlights this driver with investment in infrastructure, education, and public relations campaigns. And it works very well. However, bear in mind that labor rates are not static. In 1990, the average annual wage in China was roughly \$600. By 2002, it was \$1,329. While this is still quite low relative to domestic U.S. income, it is climbing rapidly and the labor cost advantage will continue to erode over time.

Many might be lured by the idea that business runs all day, everyday. You can work during the day, and your Chinese partners will keep going while you sleep, right? In truth, it rarely works this way. The reality is that everything just takes longer. Product development and production is almost never a trouble-free activity. Dealing with challenges is always difficult, but if the work is performed locally, a company can at least respond by pulling together the team quickly to resolve a problem. If there are 13,000 miles between team members, the difficulties can be amplified. It is likely that local reps will be up at night to deal with problems on the phone, and that information transfer will take longer because of the a 12-hour time difference.

This is not to say that China is out of the question. There are several situations for which China outsourcing can work very well, as follows:

- Low-cost, high-volume consumer goods design and manufacturing.
- Consumer electronics.
- High volume plastic injection molding services and tooling.
- High-volume sheet metal design and fabrication.
- Ongoing material cost reduction.
- Fast design cycle times.
- Really large corporations (think WalMart).

If your product or company matches these situations, then China can provide a great opportunity. Most medical device manufacturers, however, do not fit into these categories.

### 10 Questions to Ask Before Outsourcing to China

Many device makers believe they *must* outsource in China. The first thing to realize is that a decision to outsource in China is extremely strategic and requires significant efforts in terms of people, time, and money to implement and manage. Obviously, an OEM wants to be reasonably sure that this is the way to go before investing that level of effort. To meaningfully address this challenge, use an "Offshore Outsourcing Triage" tool to quickly size up the situation. It consists of 10 questions, as follows:

1. Does my company require high-product volumes?
2. Can I predict product needs consistently at least six weeks in advance?
3. Does my organization already have outsourcing experience in China?
4. Is the company financially sound with outstanding credit?
5. Can I use any material my outsourcing partner decides to put in a product?
6. Are most of the product's end-users located in Asia?
7. Is there little to none of my intellectual property in the product?
8. Is anyone else outsourcing a similar type of product in China successfully?
9. Is the product only required to conform to standard commercial regulations?
10. Does my organization have experienced R&D and supply-chain teams in place?

If at least eight of the questions can be answered "yes," then China might a good option. Otherwise, don't bother. To make a final determination, review the questions in a little more detail.

**High-Volume Products.** Consider a *high volume* in the context of consumer devices. Think MP3 players or plastic dog bowls. High volume will vary somewhat by product, but generally you should think in terms of thousands per month as something that will attract the attention

of a Chinese partner. This number is also important in the context of what other products a Chinese partner might be building alongside your product. While you might consider your 200 pieces a month as earth-shattering in your market, the Chinese partner who builds 10,000 pieces a month for another customer will prorate his attention, or assign the C or D team to your product, accordingly.

**Predicting Product Needs Six Weeks in Advance.** This is important. Six weeks is the minimum amount of time that it generally takes for an order to a Chinese partner to be received, built, tested, packed, containerized, placed on a ship, clear customs twice, be unloaded in Long Beach, and delivered to your doorstep. One of the important economic concepts to understand when outsourcing is that the product transportation costs are significant. If product needs are not predictable enough to deal with a four-week trip across the Pacific, then a company risks running out of product, having too much product on hand, or having to fly the supply in. Transporting products by air is very expensive and should be avoided.

**Previous Outsourcing Experience in China.** Although some firms have successfully done business in China without prior experience, it is difficult. Unless someone in the organization has some experience, contracting a team may be a good option. There is a Mandarin phrase that sums up how business is conducted in China: *Guanxi*. Simply put, successful business in China relies on a solid set of relationships, networking, and influence. If a firm is not tapped into the Guanxi-way from the start, its chances of success are close to zero. Guanxi determines who gets priority, who gets attention, who gets the best price, and which team deals with a firm's product. Remember too that Guanxi implies that the OEM must spend considerable time in China working with partners. When calculating the cost of outsourcing, don't forget those monthly trips to China, which can cost \$5000 per person per trip. Also calculate the time spent in transit and the effects of jet lag. It adds up.

**Financial Security, Even with Outstanding Credit.** Do not underestimate the importance of a strong financial position. If an unexpected event occurs, a company rep will likely need to spend considerable time in China dealing with it. Travel costs can build quickly. Freight expeditors and air shipment costs for prototypes and samples are expensive. Perhaps most important is that many Chinese partners require that a letter of credit be in place before they start working with a client. If company credit is less than perfect, dealing with China might lead to a precarious financial position.

**Product Material Changes.** Most of the time, the origin a memory chip or fastener doesn't really matter as long as it works in the application. However, for many medical products, it is a regulatory requirement to know where a part comes from and who makes it. If a product cannot adapt to substitutions without extensive prior testing and approvals, it should not be put at risk for such occurrences.

**End Users in Asia.** If customers are located in Asia, then the supply and shipping costs could be worthwhile. However, successful product delivery in other Asian countries implies that the firm already understands the challenges and opportunities.

**Intellectual Property.** Reverse engineering and unauthorized copying are real problems in China. A product that has patent protection or contains trade secret technology might be at risk. It is important to remember that the Chinese government does not place as much emphasis on transparency, as does other countries. China is still an emerging economy and much of it is state controlled. Even if a company finds evidence of a patent infringement, it can be expensive and difficult to obtain remediation. This situation is improving, but the fact remains that business is conducted differently in China than in the United States, European Union, or Japan.

**Similar Products Being Outsourced.** The reason to this question has to do with whether there is evidence of an infrastructure in China that can build your product. It is not unusual to have entire cities in China focused on certain types of products. For example, the city of Chongqing aspires to become China's Detroit. There are streets and neighborhoods that have building after building of machine tool makers. Evidence of other companies that have built products similar to yours is a good sign. It is far more difficult to be the first company

to have its type of product manufactured in China.

**Regulations.** China does a good job of testing and certifying to regulations such as UL/CSA product safety and FCC/CISPR requirements. However, if a product requires certain types of FDA approval, it is important to perform due diligence on the manufacturer to ensure that it understands and can deliver on these requirements.

**Experienced R&D and Supply Chain.** It is absolutely critical that you have experienced people available to you to work with any potential offshore partner, China or not. Problems and issues will always arise, and if you don't have the people available to address them quickly and effectively, the problems might not be resolved correctly. Always remember that your customers view you as the supplier, not your Chinese partner when they have a bad experience with your product.

## Summary

Outsourcing to China can be a great option provided there is a good match between a company, its products and business needs, and the strengths of China. Without due consideration of these strengths and weaknesses, any benefits can evaporate quickly.

In general, products that succeed in China are based on "commodity" technology. The product should be high volume, and a company should not make the decision primarily on price. Most important, be honest about the company's needs and expectations. If needed, find a partner to help manage relationships.

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