

## **Outsourcing demands diligence in quality control**

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AKRON, OHIO (September 4, 2007) -- Mattel Inc.'s drama and the latest scare over Chinese consumer goods are raising doubts worldwide about doing business with China. But, a U.S. company said the quality of its products improved after moving production from Farmingdale, New York, to China.

Electronic Hardware Corp. went to China in 1998 after it exhausted all internal resources trying to cut costs. In two years, profits increased 48 percent -- and product rejection dropped to just 0.41 percent.

The company took the time -- three years for the transition -- to find qualified plants and employed an intensive inspection system, made possible by the lower labor rates.

With its successful experience in having proprietary and custom-made instrument knobs manufactured in China, the company started a consulting business division: Smart Sourcing Inc. (SSI)

Frank Pellegrino, head of the plastic division, said there is no secret about assuring quality of outsourced products.

"You just need to identify vendors' core competency [and] attitude -- make sure they are as enthusiastic, and put quality control people and systems on the plant floor," he said.

### **U.S. buyers be aware**

"Quality on any products you are sourcing, especially from sources you are not familiar with, has to be a major concern, no matter where they are at or where they buy from," said Craig Messerknecht, vice president of marketing and world product management of mold components supplier D-M-E Co.

He said the Madison Heights, Michigan-based company has had positive experience in Asia, thanks to a strict process of dealing with suppliers.

"The steps we take to issue quality from any source, whether from Bowling Green [in the U.S.] or Beijing, we have the same concerns, and we have the same system in place to make sure the products we bring in are of same quality."

He called for U.S. buyers to be aware of all the risks and not to make assumptions.

"In China, you have everything from an extremely world-class system to the opposite end. You need to know who you are dealing with," Messerknecht said.

American quality standards are several steps ahead of those in China and other Asian countries, according to Jeremy Haft, founder of New York, New York-based BChinaB Inc. "Chinese consumers and producers just aren't accustomed to this quality level."

Haft said some Chinese firms employ alternative and primitive methods of production. For example, unlike in the U.S., a progressive die in China will be split into a series of line dies fed by hand. "The risk of human error will skyrocket in these conditions, and mistakes are much more prone to happen," he said.

But Pellegrino does not believe the problem lies in the Chinese standards and enforcement.

"It's the purchasers' responsibility to see that everything is in place and followed," he said. "If you have people on the plant floor every day, how can [something like Mattel's case] be happening under your nose?"

### **The reality of quality control**

The quality issue associated with overseas manufacturing is no news in itself.

Haft said multinational corporations have struggled for years to bring reliability and visibility to their production in China, while consumers on the whole remained in the dark.

The recent rash of consumer product scandals finally shined a light on the global supply chain and the basics of quality control.

"It's taken us a long time to develop the relationships and the staff," Pellegrino said. SSI now maintains a network of 50 plastic factories in China, with a staff of 35 in Shanghai and seven in the Ningbo office that just opened August 1.

"We have two to four quality control staffers -- engineers with at least five years' experience -- for each of the three departments in Shanghai," Pellegrino said. Three of the seven in Ningbo, Zhejiang province, specialize in quality control, and one lives at the factory.

"We are not there carrying a stick. We are there to help the vendors. They look to us as an aid," he said.

Bingyu Xia, a quality manager at SSI's Shanghai office, said the company uses several procedures to constantly improve the quality of vendors, including evaluation of quality, delivery and service, annual checks and training.

"We eliminate the bottom 15-20 percent every year," he said in a phone interview. The pressure of competition keeps vendors working hard.

Although many blame the long supply chain in China as a loose link in the quality chain, Pellegrino said that is not fair.

Subcontracting happens in the cases of overextended capacity, expedited orders, machinery failure or shut down of power supply, which occurs frequently in China's industrial centers.

But the same level of scrutiny is needed for subcontractors.

"We have the same access to the subcontractors as to the primary vendor. We are not allowing them to take shortcuts," Pellegrino said.

Xia said quality control people have to be on site with subcontractors and attain certification from customer-approved third parties if needed.

## **Is China out yet?**

Will the recent flurry of incidents put a deep dent in China's exports?

Some experts say no.

SSI sees no sign of impact on its business in China.

"We've had questions for products. People are once again asking for certifications that we normally have anyway. They just need reassurance," Pellegrino said.

"As far as our industry goes, I don't anticipate there'll be any significant changes," Messerknecht said, "I don't think it's going to stop U.S. companies from buying tooling or tooling components from overseas. They may think a little harder about some of the quality and lead-time issues and look at the bigger picture.

"The problem is magnified when you are buying from a country that's not nearby, that has different languages and cultures than you are used to dealing with."

The immense volume the U.S. imports from China -- some labeled "Made in China" and some not -- contributes to China being in the spotlight more than other countries, Haft said. But China is not necessarily worse than other countries that the U.S. imports from. "My personal feeling from experience is that China is generally better than a lot of developing countries, in terms of manufacturing and assembly prowess.

"It's hard to turn back a raging river."

Doreen Michelini, president of Chicago-based consulting group China Mexico Solutions LLC said there have always been quality problems in China, just like the U.S., India, Mexico and other nations.

"Because we are closer to the problem and feel more comfortable that U.S. agencies are involved, we minimize the problem," she said.

Even so, Michelini said, orders are not going from China to Mexico because of concerns over quality.

The U.S.'s unrelenting demand for cheap products secures China's position as a major outsourcing destination and offshore production location, Pellegrino argues.

"China's exports are demand-driven, and the particular demand is also price-driven," he pointed out. "People that are manufacturing in China, where would they switch to and at what cost? They are certainly not coming back to the U.S."

Pellegrino said SSI has done some exploratory work in India. "China is still the place to be now. India still is lacking infrastructure."

Haft said multinational corporations that are doing business in China today are always evaluating alternative sources of supply, and many of them are already sourcing goods in other countries. "But regardless of the recalls, there are still many areas in which China's manufacturing environment is superior to other countries," he said.

"It'll be tough for [multinational corporations] just to shift supply, lock stock and barrel, to other countries -- especially when, in many cases, the quality will be even worse," he said.

## **Tips for quality control**

Haft said his company, BChinaB, literally inspects every single product, as opposed to doing statistical sampling.

"That takes a lot more time and money, but it's necessary. Otherwise, you're prone to either greed or mistakes," he said.

While that might not be doable for orders of millions units, SSI's Shanghai quality engineer of plastics Clark Wang said factory operators do self-check every product. For smaller orders, the final inspection can cover all units as well.

For larger orders, "we allocate more people and increase the frequency of sampled inspections," Wang said, "sometimes up to every two hours during the production."

More diligent work in the very beginning would help too. "During contact review, we evaluate the possibility of any problems that could happen in fulfilling the order," he said. "We let our factories involve in the make of quality plans, so that they truly understand all the details."

Xia said he believes attitude of a supplier is the most important in the selection process.

"Many Western buyers only look for factories with certain certification, such as ISO 9000, but certification is no guarantee," Xia said.

Lee Der Industrial Co. Ltd., in the heart of the Mattel recalls, is ISO 9000 certified at all its factories, according to Chinese media.

"Those certified ones can fail too. On the other hand, those without certification can also make high quality products, if they are willing to cooperate," said Xia, emphasizing why attitude is important.

Sometimes, a company's attitude is determined by the deal, itself.

In the wake of policy changes, cost rises and strengthening yuan, Chinese factories have a lot of balls to juggle at the same time. And in harsh conditions, balls can drop.

"We are tough price negotiators, but we don't cut everything out of vendors," Pellegrino said.

He said buyers need a more complex approach of understanding than just a dollar-and-cents approach.

"In some cases, we absorb [the cost increase]," Pellegrino said of SSI's experience. "In some cases, we take the hit along with the factories, and sometimes we are passing it on to the customer.

"If you keep expecting the vendor to eat all this [cost pressure], you are just setting yourself up for something to happen."