Hidden Risks in Your Offshore Supply Chain

There are many risks when it comes to selecting OEM suppliers. Understanding them is essential to running a successful business. We'll examine the three strategic areas that are key in your decision making: Cost, Scheduling and Compliance.

A publication of

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Costs

Factors that contribute to the complete cost associated with a product

Cost Factors

Labor

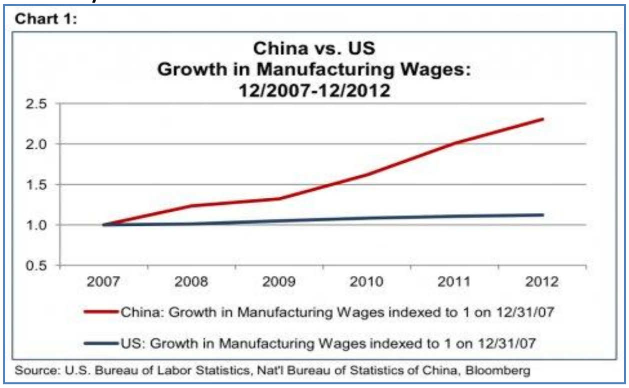
Off-shore labor – For years, China and other countries have been able to capture manufacturing contracts based on hourly rates alone. At first these costs may appear to be cheaper. However, many companies also invest time and money to make sure these low-cost suppliers meet their quality requirements and specifications. Today, the increase in foreign wages has changed the equation. When you factor in all other costs, China is no longer the low-cost provider it once was.

Empowered workers - New emerging middle-class workers in many offshore companies have become empowered. There is a great deal of turnover as workers look for higher pay. In some instances, they may hold management hostage (literally and figuratively) and demand better wages. In 2011, the Chinese turnover rate was 26.3%, compared to a U.S. rate of 17.9%. Higher turnover increases training costs and decreases factory efficiency.

Productivity and Unit Labor Costs – As productivity grows faster than wages, the cost to manufacture one unit of a product decreases. This was the case in the Unites States where unit costs dropped by almost 17% between 2000 and 2012. Conversely, in China they doubled.

IP Loss (Intellectual Property Loss)

Companies large and small have found it very difficult to protect their proprietary design in some foreign countries. Chinese OEMs have become notorious for these infractions. If your product has unique advantages over the competition, you may want to consider keeping your OEM close to home or even manufacturing in-house. Unless you are a large corporation that can afford to take the risk, there is little recourse in many countries to stop IP fraud from occurring.
This is a sad reality with no easy fix.



Cost Factors

Shipping

Many companies fail to understand the full cost of shipping from China and other low -age countries. Depending on the contract, importers may handle picking the goods up at the factory door. Many foreign manufacturers will include FOB (Free on board) shipping.
Factors to consider include:

> FOB – This is the price paid by the manufacturer to get the goods to the port. Depending on the contract, this may be an inland port. Once on the carrier, the purchasing company pays for the remainder of the shipping costs to the final destination (s) as well as import duties and taxes. All of these charges need to be considered to assess total shipping costs. Having aa FOB contract and terms will guarantee all parties know the extent of their financial responsibilities.
>
> Time to market – There is also a cost to any delays that occur in receiving goods for sale. When commitments and timelines are not met, profit is lost. Once a delay occurs, to get merchandize to market in time, some manufacturers have used air freight to expedite the shipping. Air freight can be 10x more expensive than shipping by container, and that can erode margins quickly.

Quality

To be sure they receive the quality required, companies need to work very closely with their OEMs. Many buyers have had to settle for less than perfect output rather than go through the process of returning inferior products. The best scenario is to have on-site quality inspectors; however this may not always be an option. Working through quality issues can be impaired by distance as well as language barriers. It may take additional time to build checkpoints and approval points throughout the manufacturing process, but the extra time can mean the difference between a good product and a poor one.

Determining True Costs

To determine if off-shoring your supply chain is truly the right move you can use the [Total Cost of Ownership Estimator ™](#) created by the Reshoring Initiative. This calculator outlines 36 variables that will impact the final cost to the purchasing company.

Scheduling

Factors that impact the time needed to bring a product to market

Scheduling

Lead Time

Distance can make a real impact on the efficiencies and costs of your supply chain. Companies with off-shore suppliers must build in lead time delays into their inventory to ensure they have enough product to meet the market demands. If they overestimate, they risk having surplus product they can't sell. If they underestimate, they end up short on stock and with unhappy customers. These inventory costs can add between 20%-30% to total product costs. Choosing suppliers closer to the consumer provides improved inventory planning and response to market conditions. A new look created by the Op Lab at The University of Lausanne, Switzerland called CDF (Cost Differential Frontier tool) can help companies determine how lead times impact the cost of off-shore sourcing.

Time in Transit

When working with off-shore suppliers, transit time is a big consideration. Companies need to allow not only for the time to port, but from port to destination. Savvy buyers will also build in additional time for potential delays. Worse case, product shipments must be expedited using costlier shipping arrangements. Shipping from China to the East coast, takes approximately 30 days, to the West coast takes less time (on average 20 days.) If your factory is using an inland port initially, it could take several days before the shipment arrives at the ocean access port. Preparing documentation, getting through customs and shipping from the port can add several weeks to the journey.

Factory Delays

Factory delays can lay any strategic plan to waste. Many factors can cause these delays including problems in material sourcing and delivery, worker unrest, or plant overcapacity. When resources are strained at the factory, it creates a bottleneck that can greatly alter time-to-market estimates.

Scheduling

Delivery Delays

This might occur when Customs Officials have found an issue with a product or, a product has been found to be inferior and is rejected. Parts that don't meet the quality standards of the importing company or government agency can cause substantial delays in delivery.

Transshipment

Transshipment occurs when products begin their journey using one form of transportation and end it using another. This might occur when a shipment is not large enough to fill a container and must be consolidated with other shipments to meet the carrier's requirements. Unfortunately, this consolidation can add substantial amounts of time, and these are not easily addressed. If a company chooses an off-shore or Chinese supplier, they should include additional time as a buffer against any unforeseen transshipment delays.

Map courtesy of GRID-Arendal. http://bit.ly/14VYQNa

Compliance

Requirements and government agencies that impact the importation of goods

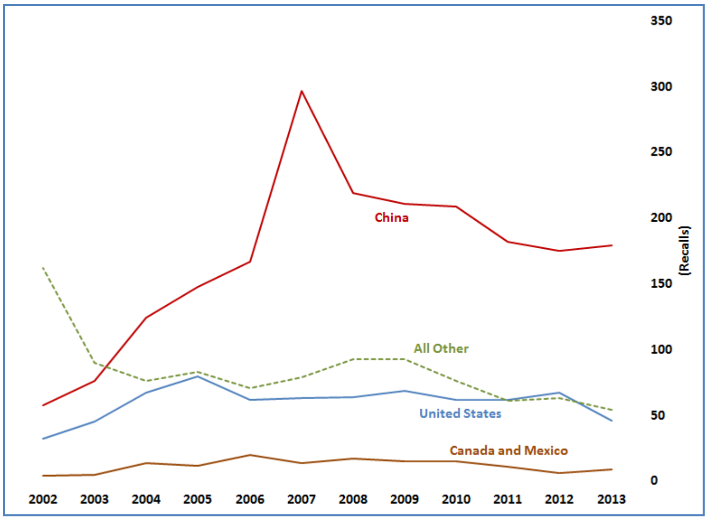
Compliance

Regulatory compliance has become a focus in recent years. Products from other countries, particularly China, face additional scrutiny. From car seats to dog treats, there have been numerous safety problems.

The two key agencies in charge of protecting our product and drug safety are the FDA (Federal Drug Administration) and the CPSC (Consumer Products Safety Commission). Product safety issues have become so numerous that both agencies opened offices and created Chinese language websites to help ensure Chinese manufacturers are compliant with our regulations.

According to the FDA website “Based on the volume of imported products from specific areas, problems that have been associated with products over the years and value to be derived from leveraging the activities and resources of trusted foreign counterpart regulatory authorities, U.S. FDA has established a permanent in-country presence in China, India, Europe, Latin America, and Sub-Saharan Africa.” “ To protect American consumers by ensuring that these rapidly increasing Chinese imports are safe, effective, and comply with U.S. science-based standards, FDA must adopt a new regulatory approach: it must increase its capacity for inspecting and analyzing Chinese products before they are shipped to the United States.”

Recalls Under Consumer Product Safety Commission Jurisdiction By Country or Administrative Area of Manufacture, 2002-2013



Source: Economics and Statistics Administration analysis using data from the Consumer Product Safety Commission.

Compliance

CPSC Compliance

The Consumer Product Safety Commission's regulations and acts impact many imported goods that we use every day. They have the authority to enforce the product safety standards outlined in the following acts:

Consumer Product Safety Act (CPSA)
Consumer Product Safety Improvement Act (CPSIA)
Federal Hazardous Substances Act (FHSA)
Flammable Fabrics Act (FFA)
Poison Prevention Packaging Act (PPPA)
Refrigerator Safety Act (RSA)

The list of products included is extensive and includes most items made for children, many chemicals, batteries, art supplies, clothing textiles, rope, rugs and some household appliances. It is the responsibility of the importer or purchasing company to understand whether or not their product or part needs to meet any of these regulations. While the product itself may not be on the list, one of the component parts may need to meet special guidelines.

To be sure the products comply with CPSC regulations; suppliers must verify that all parts and materials are also compliant. This can become complicated when multiple suppliers are involved. There have been reports of suppliers claiming compliance when the end product did not meet the standard. Several years ago, lead paint was found to be used on children's toys. Obviously, this was in violation; however many foreign suppliers are often not aware of the composition of the materials they use. If a product is in violation and it is seized by customs, the purchasing company may face penalties, may need to destroy the faulty products or make revisions to meet safety standards.

Compliance

FDA Compliance

The FDA oversees and regulates food, drugs and cosmetics. This is not an easy task. Counterfeit drug makers have become so sophisticated at mimicking legitimate drugs that Chinese authorities work in tandem with the US to stop their proliferation. New food safety regulations passed in 2011, require importers verify the safety of all imported food. High-risk foods must be accompanied with third-party verification.

According to their website "As part of FDA's activities intended to protect the health and safety of U.S. Consumers, FDA often conducts inspections of foreign establishments that produce FDA-regulated articles intended for use in the United States." The key here is "FDA regulated articles." Off-shore producers must be sure they understand what the requirements are to meet FDA regulations.

It is the responsibility of the purchasing company or importer to understand if their product falls within FDA's regulations. If it does, the off-shore manufacturer or supplier must be registered with the FDA, and the registration must be verified. Some factories have been known to misrepresent their registration by using the qualifications assigned to another manufacturer.

Many purchasing companies either have a presence at contracted manufacturer's factories to monitor compliance with FDA and CPSC regulations or they hire third party vendors to monitor the process.

Ethical Sourcing Audits

Tragedies in China, Bangladesh, and India, have underscored the need for purchasing companies to be aware of how their suppliers operate within their countries. Consumers are demanding that working conditions, hours and wages improve in these impoverished areas. In response, many companies have established Ethical Sourcing Audits as a part of their overall corporate responsibility mandate. These audits may include verification of working conditions, documentation of employee policies, on-site inspections and employee interviews.

Compliance

Customs

Customs is the last stop on the product's journey from an overseas supplier. Since the 9/11 tragedy, the role of the Customs agency has expanded to include border protection as well. Today the CBP (U.S. Customs and Border Protection) is concerned with making sure products coming into this country pose no threat to our National security. This oversight includes inspecting containers and shipments to insure that no tampering has taken place. They are also responsible for collecting all duties, taxes, fees and tariffs.

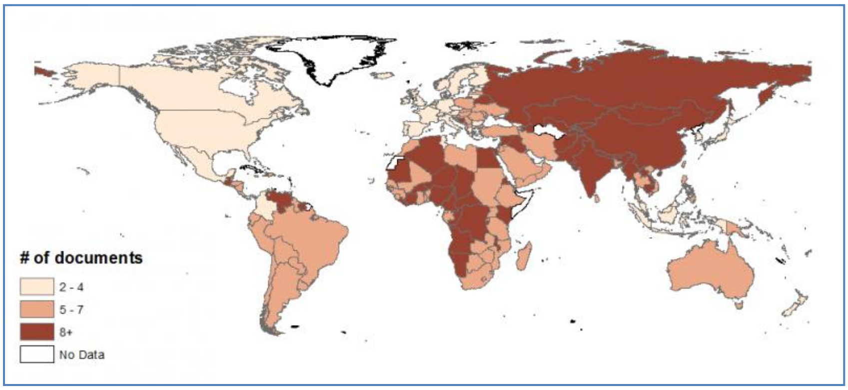
The increased scrutiny of imported goods has placed some additional burden on importers. All shipments must be clearly marked with details regarding the contents including country of origin. Other information may be required based on the product. Food, drugs and other classifications must follow additional guidelines.

The CBP is also tasked with the responsibility of insuring illegal drugs do not cross our borders in shipments. Narcotics smugglers are known to stash contraband in shipments. For this reason, the CBP inspects all aspects of a shipment including the containers, pallets, boxes, etc. The bottom line is this; it is the responsibility of the importing company to ensure the CBP has the information they need to execute their duties as efficiently as possible. Failure to do so will add time and expense to the process. Worse case, the imported goods might be impounded or confiscated for failure to meet customs regulations.

The U.S. Customs and Border Protection Agency has provided a publication entitled "Importing into the United States" with specifics on importing requirements, sample documentation and a list of prohibitions and restrictions. Some companies use custom experts or licensed customs brokers to help facilitate the process.

Total Number of Documents Required Per Shipment to Export Goods

Source: Economics and Statistics Administration analysis using data from the World Bank, Doing Business project.



Supply Chain Checklist

COSTS

- ☐ Total shipping costs (F.O.B. or other)
- ☐ Contract outlining financial responsibilities of supplier
- ☐ Time to market delay (estimated cost to ship via air if needed)
- ☐ Labor cost to re-train workers
- ☐ Productivity weighted unit labor costs
- ☐ On-site quality inspectors
- ☐ Legal cost to defend IP property

SCHEDULING

- ☐ Estimated lead time to receive and ship goods to market
- ☐ Overstock to cover inventory demands
- ☐ Time in Transit
- ☐ Estimated delivery delays (worse case)
- ☐ Transshipment timing consideration
- ☐ Estimated factory delays

COMPLIANCE

- ☐ Products meet customer's quality standards and product requirements
- ☐ Products, parts, and materials are compliant with CPSC regulations
- ☐ Products are compliant with FDA regulations as required
- ☐ Third party verification for FDA supplied as required
- ☐ Supplier passed ethical sourcing standards
- ☐ Customs regulations are met
- ☐ Shipments clearly marked with country of origin
- ☐ Estimate fees, taxes and duties owed to CPB

Conclusion

Eliminating off-shore risks

Everything we do in business has some inherent risk to it. The goal should be to minimize the risk as much as possible. Knowing the pitfalls and what to look for will help. Knowing how to source on-shore suppliers can also mitigate these risks. More companies today are looking for suppliers that are closer to home to fill their needs. Companies understand the value of producing goods closer to the end-use consumer. An agile manufacturing environment allows companies to respond quickly to trends and consumer demand.

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