# DOES OFFSHORING STILL MAKE SENSE?

**By John Ferreira and Len Prokopets**

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**For years, the concept of offshoring, or moving production and/or sourcing operations to a foreign country, has been the mantra of any supply chain manager looking to cut costs. Now, amid volatile oil prices and an uncertain global economic future, this analysis suggests that might not be such a good idea.**

Just when thousands of manufacturers thought that offshoring a significant portion of their manufacturing and supply operations has given them competitive parity, the game may be changing again. The same factors that made offshoring a sure-fire tactic for reducing costs have shifted dramatically and now are eroding many of those savings. As a result, on-shore and near-shore production is now viable and competitive in many cases.

You may want to hit the hold button before moving more of your supply operations off-shore; many manufacturers are finding that the numbers just don't add up anymore. In fact, a significant percentage of U.S. manufacturers are seriously reconsidering their production and sourcing strategies and even beginning to return manufacturing that they had once moved to low-cost countries.

## The Way Things Were

Over the last 10 years, manufacturers have viewed offshoring as a necessity—one virtually mandated by the price demands of customers and by the cost advantages of competitors that had already aggressively off-shored. The rationale for offshoring was, in fact, a rather straightforward economic one. Suppliers in low cost countries such as China have been able to offer "perceived" prices 25 to 40 percent lower than those available on shore—the typical threshold or tipping point for moving off shore. These reduced prices were made possible by low labor costs, cheap commodities, and favorable exchange rates.

Many manufacturing executives now recognize, however, that quality problems, longer supply chains, lack of visibility, piracy and intellectual capital theft, are also part of the offshoring operation, meaning that not all of the 25 to 40 percent off-shore sourcing savings goes to their bottom line (Exhibit 1

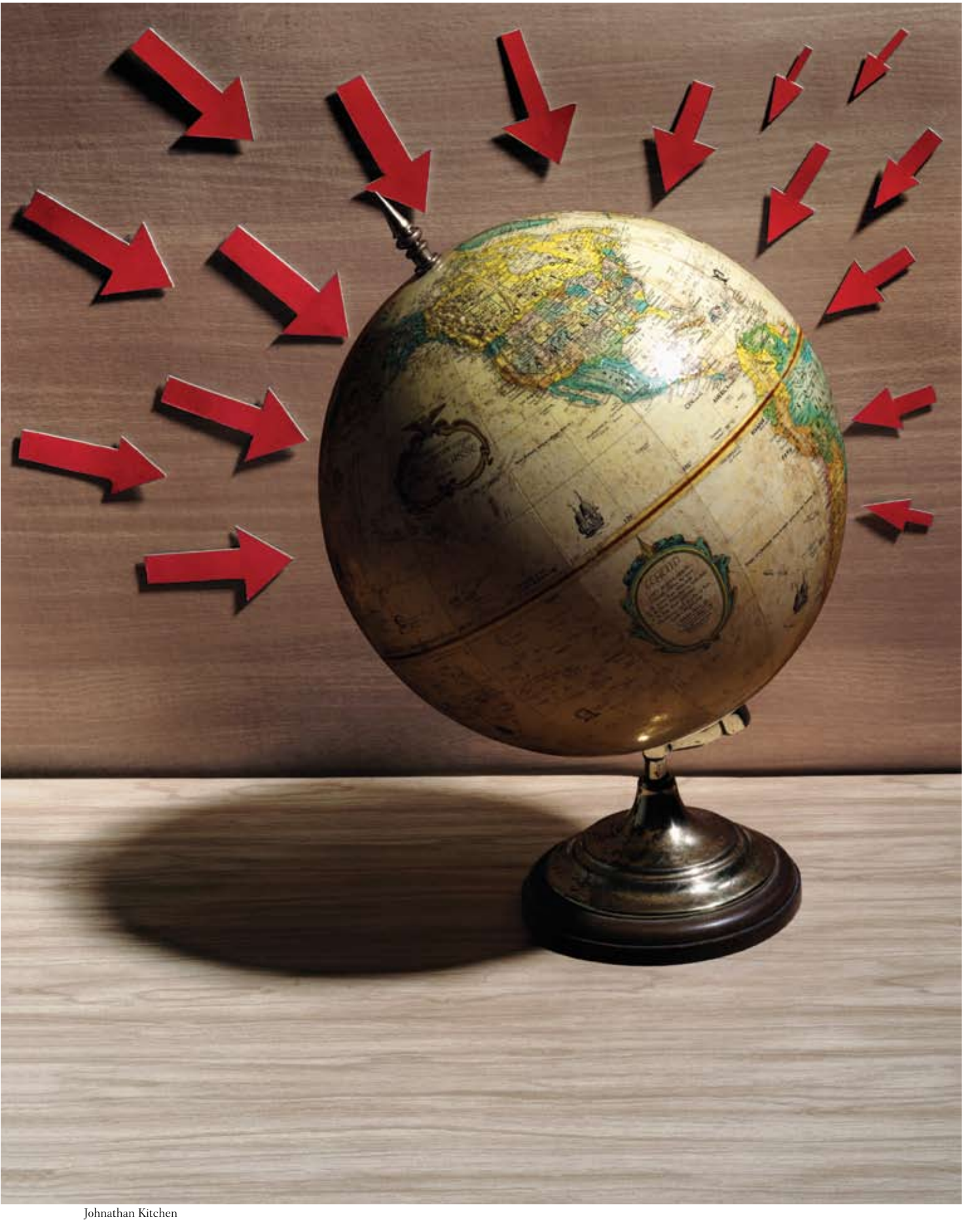

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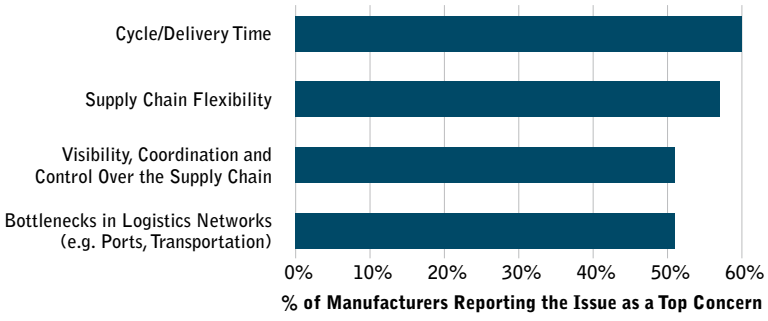
EXHIBIT 1




Source: 2008 Archstone/SCMR Survey of Manufacturers

lists some of those "soft" issues that can impact the overall costs of outsourcing). In fact, the perceived offshoring cost advantage may have never really been that high and likely significantly less when "all-in" costs are considered.

In addition, offshoring has forced many manufacturers to pull back on competitive differentiation strategies based on customization of products and services to customer needs. Offshoring requires shipping container-size minimum orders and months-long order cycle times, thereby reducing the flexibility and responsiveness of companies' supply chains. With inflexible supply chains, companies are no longer able to effectively tailor products and services to unique customer and channel needs. Despite these issues, most executives believed that the sheer magnitude of the offshoring savings overcame the increased costs of doing business and loss of customer-centric capabilities.

However, recent changes in the economic environment have served to undermine the case for offshoring to low-cost countries. In some cases, in fact, the existing drawbacks of offshoring may now make this option the wrong decision in many cases.

## The Wake-Up Call

Off-shore labor and commodity costs are being hit by double-digit increases each year, transportation charges for ocean freight are going through the roof, and many foreign currencies are gaining in value compared to the U.S. dollar. Together, these factors are acting to make offshoring less attractive as a manufacturing and supply chain strategy for many manufacturers—especially when it comes to serving the large U.S. market.

Over the last three years alone (from 2005 through 2008), the costs of offshoring have increased across a broad range of indices:

- Ocean freight costs have increased 135 percent.
- The global commodity price index has risen by 27 percent.
- The Chinese Yuan has gained 18 percent in value compared to the U.S. dollar.
- Chinese manufacturing wages have risen by 44 percent.

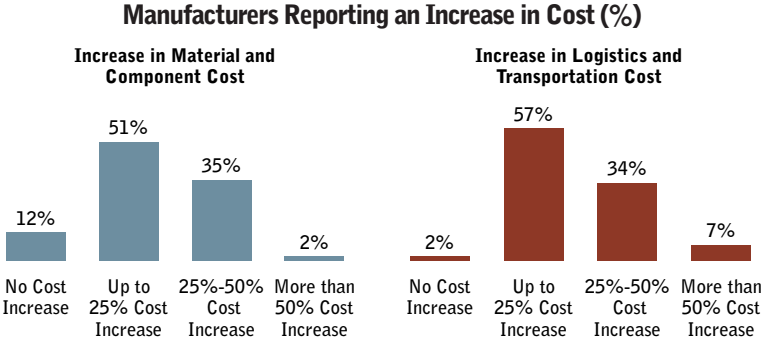
Recently, Archstone Consulting conducted an in-depth survey of thirty nine senior executives from U.S. and European-based manufacturers to assess the evolving footprint of global manufacturing and supply networks.

According to that survey, 40 percent of manufacturing executives report experiencing a staggering increase of 25 percent or more in "core" direct costs on off-shored supply—materials, components, logistics and transportation—over the last three years (see Exhibit 2). Almost 90 percent expect further significant ongoing price increases of 10 percent or more over the next 12 months of 10 percent or more (11 percent of manufacturers report that they expect core offshored costs to increase by over 20 percent).

While these trends will always have short-term fluctuations up and down, the longer-term trend line, according to many economists, points to two developments:

- The re-emergence of the U.S. and some near-shore manufacturing sources as attractive supply markets.
- The potential for the local U.S. supply base to regain some of the business lost to offshoring in recent years.

EXHIBIT 2




Source: 2008 Archstone/SCMR Survey of Manufacturers

While it may be some time before the full implications of these trends is known, it's telling that many manufacturers already have come to realize that positioning manufacturing and supply closer to its customer markets can help overcome many of the "soft" issues associated with offshoring. This, combined with the eroding financial advantage of offshoring, is renewing manufacturers' interest in near-shore and on-shore supply and manufacturing.

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Case in point: When a major specialty clothing retailer in the U.S. had difficulty matching its holiday inventories to demand due to the lengthy lead times required by its off-shore materials manufacturer, it shifted that manufacturing to an East Coast mill that was better able to meet demand with just-in-time efficiency. For the retailer, bringing manufacturing on-shore shortened its supply chain and improved supply chain visibility, enabling decisions to be made faster.

## The True Off-Shore Cost

It appears, interestingly, that the perceived advantages of offshoring may never have been as significant as thought. This is particularly so for manufacturers who sell their products to consumers at home in large domestic markets like the U.S. The actual cost advantage all along may never have been more than 15 percent—and for some products as little as 5 percent—when considering the "all-in" costs of offshoring as understood by applying a robust total cost model (see Exhibit 3). After applying such a total cost model, manufacturers may find that much of the cost advantage of offshoring has been erased. For some products, in fact, off-shore supply might actually have a cost disadvantage!

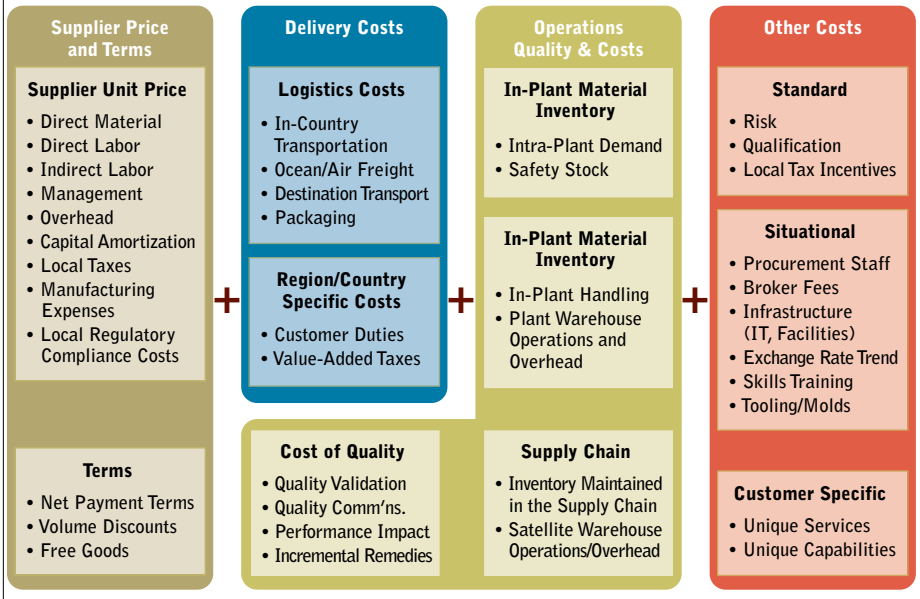
Unfortunately, more than 60 percent of manufacturers that we surveyed apply only rudimentary total cost models, ignoring cost components that contribute up to 20 percent or more to the all-in cost of off-shored production. Many manufacturers look only at the most easily available cost components and therefore see a distorted picture of the relative costs of different manufacturing or sourcing options (Exhibit 4 shows the percentage usage of the cost elements).

As the hard costs of offshoring continue to rise—though ups and downs will occur—the impact of numerous soft costs rarely included in off-shore models is becoming painfully obvious. Consider:

- The lost visibility into long supply chains resulting from offshoring that reduce a manufacturer's ability to "sense and respond" to local market and customer demands (the potential offsetting lever is increasing working capital).
- The necessity to manage container loads of goods driving a focus on larger lots and more precise forecasting rather than mass customization as a competitive differentiator.
- The reduced ability to use supply chain opera-

EXHIBIT 3

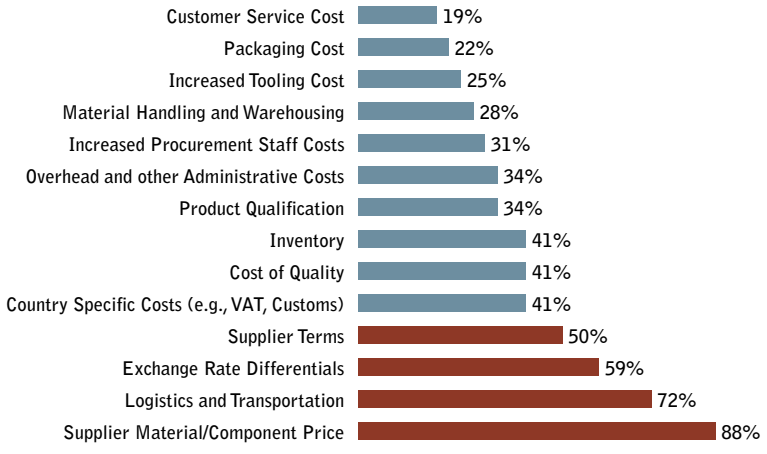
**Best Practice Elements of a Total Cost Model**




Source: Archstone Consulting

EXHIBIT 4

**Manufacturers Reporting Use of the Cost Element in Total Cost Model (%)**




Source: 2008 Archstone/SCMR Survey of Manufacturers

tions to help drive competitive advantage by providing customers more customization, increased SKUs and more flexible ordering patterns.

- The cost of resolving product quality issues, including loss of materials and/or costs to ship products back for remanufacture; delivery cycle delays, and relationships with vendors and customers put at risk.
- The need for extra warehousing and related costs to support high inventory levels because the long supply chain does not permit proper responsiveness to market needs.

Fortunately, awareness of the need for a more sophisticated total cost model is emerging among manufacturers. Nearly 70 percent of manufacturing executives we surveyed view total cost analysis of options as one of four top key capabilities needing development in order to rebalance their manufacturing and supply networks. They also see as important a comprehensive manufacturing and supply strategy; changing internal mindset to a longer-term, total cost view; and the ability to increase supplier capability and capacity.

**An overwhelming majority—nearly 90 percent—of manufacturers** are contemplating a change or have already changed their manufacturing and supply strategy.

Our experience in assisting manufacturers to evaluate their options indicates that a best practice, total cost model should be comprised of at least four key cost elements. As depicted in Exhibit 3, they are:

- Supplier price and terms.
- Delivery costs, including logistics, region/country-specific costs, and cost of quality—validation, communications, performance impact, etc.
- Operations and quality costs, including in-plant material inventory and handling; inventory maintained in the supply chain and satellite warehouse operations; and overhead.
- Customer-centric supply capabilities.
- Other costs, including such standard costs as risk and local tax incentives, and situational costs such as procurement staff, broker fees, infrastructure technology and facilities, exchange rate differentials, and tooling and mold costs.

"We need to focus more on total landed cost and make more attempts to achieve enterprise-wide leverage," one executive told us. "This will require of us greater focus on near-shoring and other global low-cost countries besides China."

## A New Opportunity Emerges

Manufacturers have always wanted to mitigate supply chain risk through a multi-region strategy. This approach will become more important in the future, particularly for those whose manufacturing and supply operations are approximately geographically matched according to the local demand and customers.

The door is beginning to reopen for the migration of manufacturing to near or on-shore. An overwhelming majority—nearly 90 percent—of manufacturers are contemplating a change or have already changed their manufacturing and supply strategy (see Exhibit 5). When viewed in light of many manufacturers' all-too-recent drive to offshore operations as rapidly as possible, this is truly a striking change in direction.

Moderating a panel discussion on on-shoring at Northwestern University's Kellogg School of Management last year, Kevin Meyers, president and owner of Superfactory Ventures LLC and president of

Specialty Silicone Fabricators, a global manufacturer of silicone components for the medical device industry, noted that 70 percent of attendees opted to attend the on-shoring seminar over a number of others on the program agenda.

"Imagine that," he reported on his blog, "that a contrarian subject like on-shoring being more popular than going green, sustainability, and especially merger and acquisition topics at a top-tier graduate management school…it really comes down to the only true reason to off-shore is to get closer to the customer base."

As a *Business Week* article by Pete Engardio titled, "Can the U.S. Bring Jobs Back from China?" noted, "The economies of global trade are starting to tilt back in favor of the U.S. to a degree unseen in a generation." (*Business Week*, June 19, 2008)

A critical question many manufacturers will need to ask is: "Having off-shored our operations and supply networks, which ones should be returned on-shore or near-shore, and when?" The answer may be difficult to answer, and will be different for every manufacturer and product. Thirty percent of executives report contemplating some change, while 59 percent are changing their strategy. Of those changing strategies, 26 percent are relocating manufacturing and sourcing and 33 percent are being more selective in making offshoring decisions.

One of the key impacts of the offshoring challenges is the need to rebalance manufacturing and supply networks. This re-balancing includes a shift of manufacturing to North America from China and other regions. Companies' manufacturing and supply plans for the next three years (according to the Archstone/SCMR survey) indicate that North American manufacturing stands to grow 5 percent over and above local market demand. This expected increase is the largest in the world and represents a market reversal of offshoring. These plans also indicate that China manufacturing will decline by 2 percent relative to local market demand as North American offshoring declines and as lower cost production moves to Eastern Europe, India and other Asian countries.

With more manufacturing and supply networks migrated back to the U.S. or near-shore, emphasis can again be placed on market and product strategies—product development, new channel integration, and meeting customer expectations for value, service, timeliness and innovation, not just low cost.

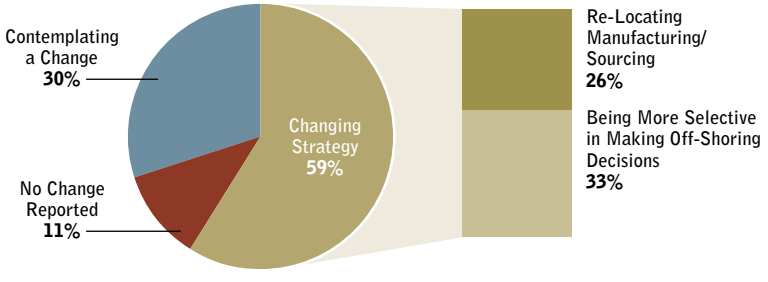
**The migration over the years of manufacturing off-shore** has decimated the local manufacturing infrastructure and its highly skilled engineering and technical workforce.

Comments from three executives who were surveyed on their future manufacturing and supply plans highlight these trends:

- "There is serious consideration being given here for near-shore (Canada/Mexico) and on-shore operations in lower-wage states like Arkansas and Alabama, etc."
- "Our supply chain management group is developing new sources in North America to replace that lost during the last wave of offshoring."
- "We are considering the fact that our customers require on-time delivery and the fact that we can charge a premium for that if we can deliver consistently on short-fuse needs."

EXHIBIT 5

**Manufacturers Reporting a Changes in their Manufacturing/Supply Strategy (%)**




Source: 2008 Archstone/SCMR Survey of Manufacturers

## Barriers to Moving Forward

It is prudent to note some barriers to re-establishing sourced or production capabilities on-shore or near-shore. The migration over the years of manufacturing off-shore has decimated the local manufacturing infrastructure and its highly skilled engineering and technical workforce, including many skilled shop-floor maintenance workers. Much of the supplier networks that served those industries have disappeared as well.

Re-establishing a manufacturing footprint in the U.S. will require

# Big Export Opportunity for U.S. Manufacturers

**By Gerry Mendelbaum**

While the outsourcing storm is far from over, the U.S. is becoming a relatively less costly place to manufacture than at anytime in the past five years. When combined with other significant advantages, the overall cost to get a product to its point of use is making U.S. manufacturers an increasingly competitive lot.

The implications of this phenomenon are significant—for example, a product that a U.S. manufacturer would have sold for $1 in 2003 in China, Europe, Great Britain or Japan would now cost between $0.69 and $0.85 due to the decline of the U.S. dollar relative to their respective currencies. Similarly, a component that a U.S. manufacturer might import from one of those same countries has effectively increased in price between 15 and 31 percent over the same five-year period.

As currency exchange rates and other economic factors neutralize the previous cost disadvantages of taking U.S.-made goods to global market, other factors further enhance the ability of U.S. manufacturers to compete overseas. For example, in general, U.S. products have a higher quality and are more tightly regulated than products from many other countries. Logistics and technology infrastructures shorten lead times and make U.S. companies easier to do business with than others in traditional low cost countries. Further, U.S. protection of intellectual property is as high as any country in the world, a key consideration for foreign companies looking to source components.

Many manufacturers, especially those that have been operating globally for many years are in a good position to exploit these trends. Often they have long-established operations in many export markets and have existing customer channel relationships.

Companies seeking to enter new export markets can draw upon channel partners that offer expertise in local rules and regulations associated with domestic (e.g. China) selling of foreign (U.S.) products. These local partners often have industrial and retailing contacts and work with U.S. companies to strategize and eventually distribute products in their local markets.

The case for aggressive export growth by U.S. manufacturers is even more compelling when factoring in the projected growth of those key markets. Countries such as China, India, Brazil and parts of Western Europe are projected to grow by double digits over the next five years. Gaining market share now, while U.S. made goods enjoy the advantage of a weak dollar.

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a strong commitment and investment to rebuild the critical capabilities. Workforce availability and skills, site planning, construction, and infrastructure rebuilding to support operations won't be easy or accomplished quickly. Capital to rebuild may be difficult to access and federal, state and local tax incentives and other support will be required. Additionally, manufacturers will need to identify and develop a network of nearby suppliers with the appropriate capabilities and capacity.

Manufacturers looking at moving operations and supply networks back home should also carefully assess their internal operational capabilities—are those capabilities intact, or have they been outsourced and supporting assets and skill sets lost? Can the capabilities be re-established here, by whom, and how soon? Manufacturers also report that a new internal "mindset" is necessary to fully capitalize on the new economic dynamics of bringing production and supply on or near-shore—specifically companies cited the following as important:

- Becoming very effective at developing a network of capable local suppliers.
- Building the internal capability to correctly analyze the total, all-in cost of their manufacturing and supply options.
- Developing a comprehensive manufacturing and supply strategy to guide individual sourcing and supply decisions.

## A Framework for Success

As we have indicated, the evolving global footprint of manufacturing and supply networks may be changing again, in favor of the U.S. As part of your planning, we suggest approaching your manufacturing and supply sourcing decisions from a holistic perspective: evaluating the company's market and customer demands and competitive strategy against a clear and comprehensive understanding of total cost.

Manufacturing or sourcing at home or closer to home may create a competitive cost advantage, but it may also allow something more important—enabling your company to differentiate itself by tailoring products, offerings, and services to the multiple customer segments and channels you serve. Enabling this type of improved customer responsiveness is likely to increase revenue while decreasing cost—a powerful competitive advantage.