RIGHT-SHORING:

CLAIMING COMPETITIVE ADVANTAGE BY MANAGING COMPLEXITY ACROSS THE CHANGING GLOBAL SUPPLY CHAIN.

A White Paper from the Americas
Leader in Supply Chain Management

EXECUTIVE SUMMARY

The dynamics of today's global supply chain are changing rapidly because of volatile fuel costs, increasing wages in overseas location, post-9/11 security concerns, and global economic issues. In this environment, some U.S. manufacturers and parts suppliers are exploring ways to claim a competitive advantage by bringing operations back to, or near to, the United States.

Benefits of this "right-shoring" strategy can include:
- Lower inventory costs;
- Reduced lead times;
- Better service for customers;
- Faster recovery time after supply chain disruptions; and
- Reduced carbon footprint.

Manufacturers that consider this option must evaluate the impact of the new supply chain on their ability to serve customers and remain competitive.

Four key considerations include:
- Capturing, analyzing and managing total landed cost transparency;
- Type of product characteristics;
- Ownership, shipping strategies, and commercial models; and
- Identifying and managing indirect, or hidden, costs.

Crossing borders, whether "right-shoring" or "offshoring," always presents a range of complex options and challenges, such as customs issues, container consolidation, warehousing, transportation, and many more (see Figure 1). Because of the supply chain complexities associated with a global offshoring program, an increasing number of manufacturers are turning to third-party logistics providers (3PLs) as experts in navigating a path that derives the greatest value to the business. In addition, 3PLs can provide existing infrastructure that reduces companies' capital investment and distribution costs.

This white paper will provide supply chain executives with business considerations essential to making decisions about which global sourcing option works best for their company.

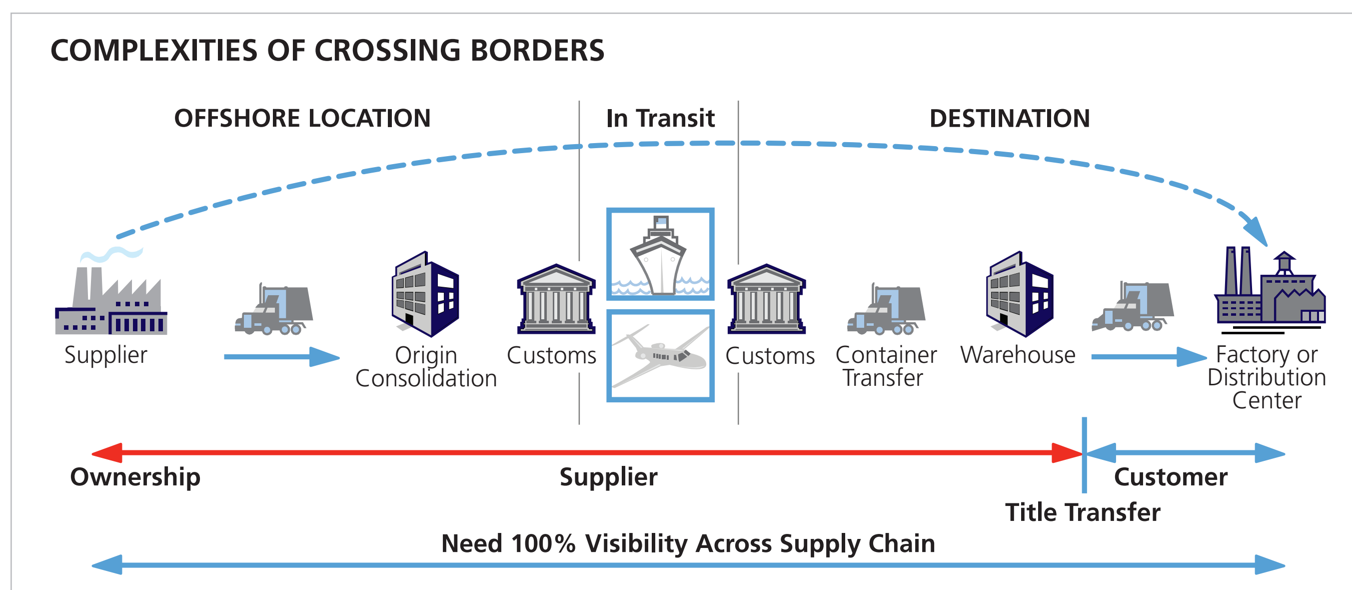

Figure 1.

CHANGING DYNAMICS OF THE GLOBAL SUPPLY CHAIN

For more than 10 years, offshoring has been a primary strategy for maximizing value in the global manufacturing supply chain. However, new factors are driving a re-evaluation of this strategy, particularly rising wages in offshore locations, volatile fuel costs, and the global economic crisis. In addition, security issues and concerns continue to evolve post-9/11 and are impacting decisions about supply chain locations.

RISING WAGES

While low-cost labor was once a key reason for offshoring, wages are rising sharply in emerging industrial markets. Since 2003, wages have increased by 21 percent in Brazil and 19 percent in China compared with just five percent in Mexico and three percent in the United States (Figure 2).

In a recent analysis of North American automotive suppliers by McKinsey & Company, Mexico surfaced as a prime right-shoring location based on labor costs and availability. The report notes that "Latin America (including Mexico) provides an average hourly labor cost savings of about 75 percent, while more distant Asia offers 85 percent savings and Eastern Europe only 60 percent, on average" (Figure 3). Asia's slight advantage in wages can be offset by other costs of doing business there, such as transportation.

The report notes several other advantages for Mexico. The Mexican workforce ranks among the top three countries worldwide in terms of hours worked per year. At 2,281 hours worked per year, Mexico ranked just behind India and the Philippines – and more than 400 hours per year

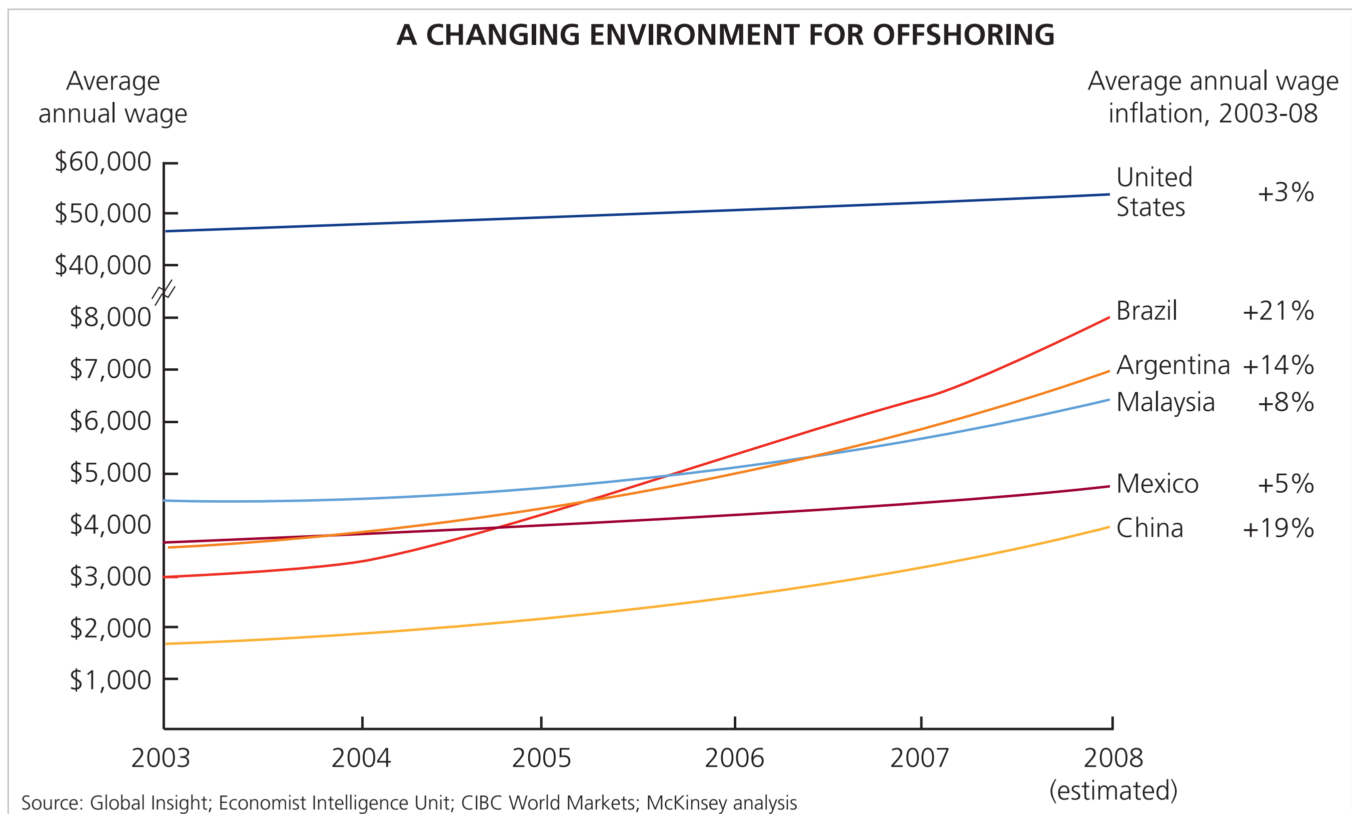

Figure 2.

ahead of its rivals in the Americas – the United States and Brazil. The McKinsey report also notes that "Mexico has a large talent pool of engineers, generalist managers, and finance and accounting specialists."

VOLATILE FUEL PRICES

Global supply chains were significantly impacted in recent years by fuel price volatility. Logistics costs have typically been a secondary consideration in supply chain management. Yet many supply chain strategies, such as just-in-time, lean, and offshoring, depend on low fuel cost.

Between 2003 and July 2008, the price of crude oil soared from $28/barrel to $147/barrel (Figure 4). At that point, the cost to ship a 40-foot container had tripled compared with costs in the year 2000, according to analysis by McKinsey & Company.

Later in 2008, prices dropped dramatically. While some experts predict that prices will ultimately stabilize, businesses must assume continued volatility in the years ahead and plan accordingly. With every $10/barrel increase in crude oil resulting in a $0.25/gallon increase in diesel fuel, this volatility can have a significant impact on supply chain viability.

Because of these factors, parts suppliers and other manufacturers must consider "right-shoring" opportunities that balance the trade-offs between local, near and offshore sourcing and manufacturing.

BENEFITS OF "RIGHT-SHORING"

With cost advantages of traditional offshoring increasingly offset by rising wages and transportation costs, U.S. companies are considering opportunities to bring supplier operations closer to home.

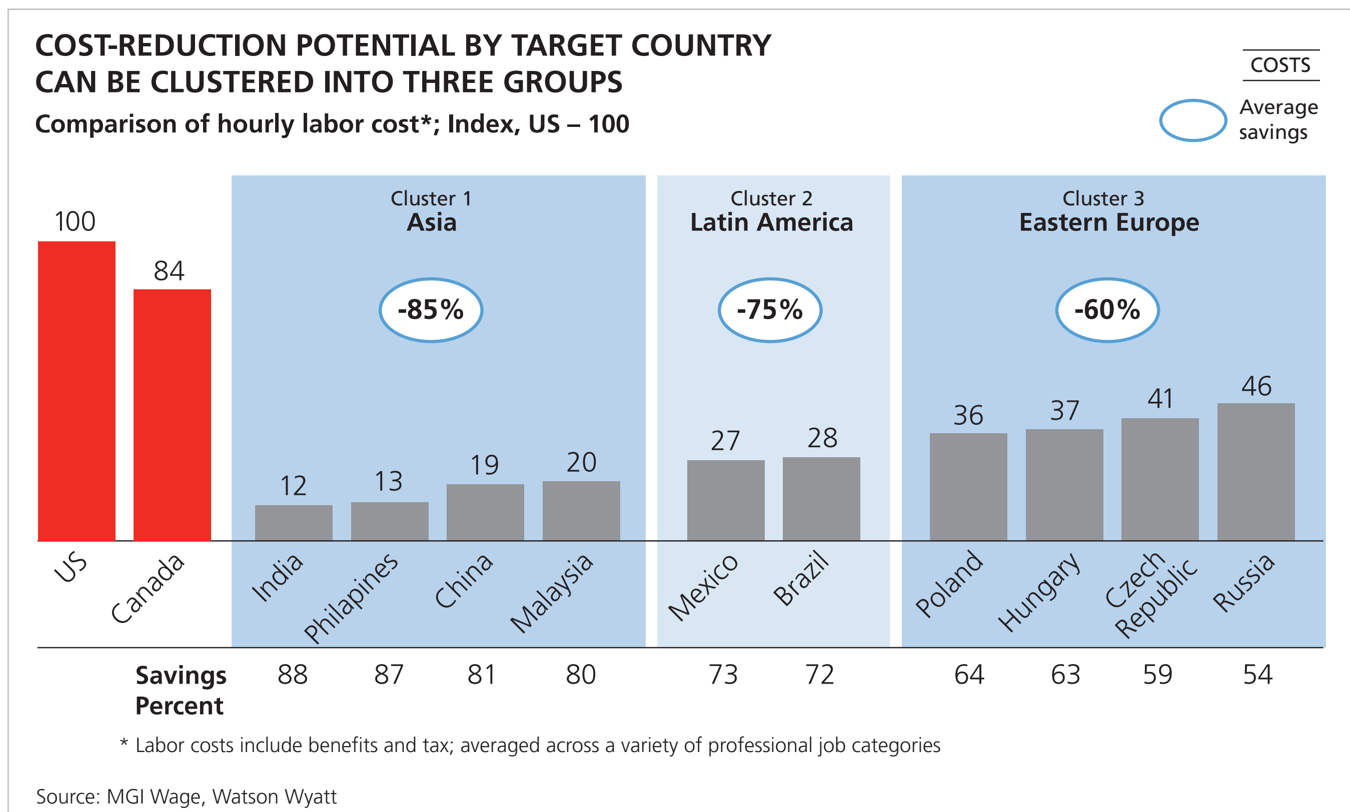

Figure 3.

Key benefits include:

– Transportation cost savings. Positioning inventory closer to the point of use has obvious benefits in terms of reducing basic transportation costs. In addition, companies can eliminate or reduce premium transportation.

– Lower inventories. High inventory costs are perhaps the most significant hidden logistics expenses. With production in Asia or other overseas locations, companies typically carry relatively high levels of inventory near the target market to guard against supply chain disruptions such as storms at sea, strikes at ports, and other issues. This approach also increases risks that the inventory will lose value if prices fall or the product loses popularity in the marketplace. In a challenging economy, lower inventories help companies reduce costs and adjust more efficiently to changes in customer demand.

– Reduced lead times. Manufacturers must consider whether the cost benefits of offshoring outweigh the benefits of shorter lead times when suppliers are closer and can deliver products and materials more quickly.

– Better customer service. With closer proximity to suppliers, manufacturers can respond more quickly to changing customer needs as well as marketplace trends.

– Faster recovery time. When supply chains are disrupted by natural disasters and other factors, a "right-shoring" strategy can result in faster recovery time that restores operations – and keeps customers satisfied.

– Sustainability. With growing concerns about climate change among a wide range of stakeholders, from customers to government regulators, sustainability is a serious topic among senior management. By reducing fuel consumption, companies can save money while cutting CO_2 emissions and improving America's energy independence – key issues for corporate reputation management.

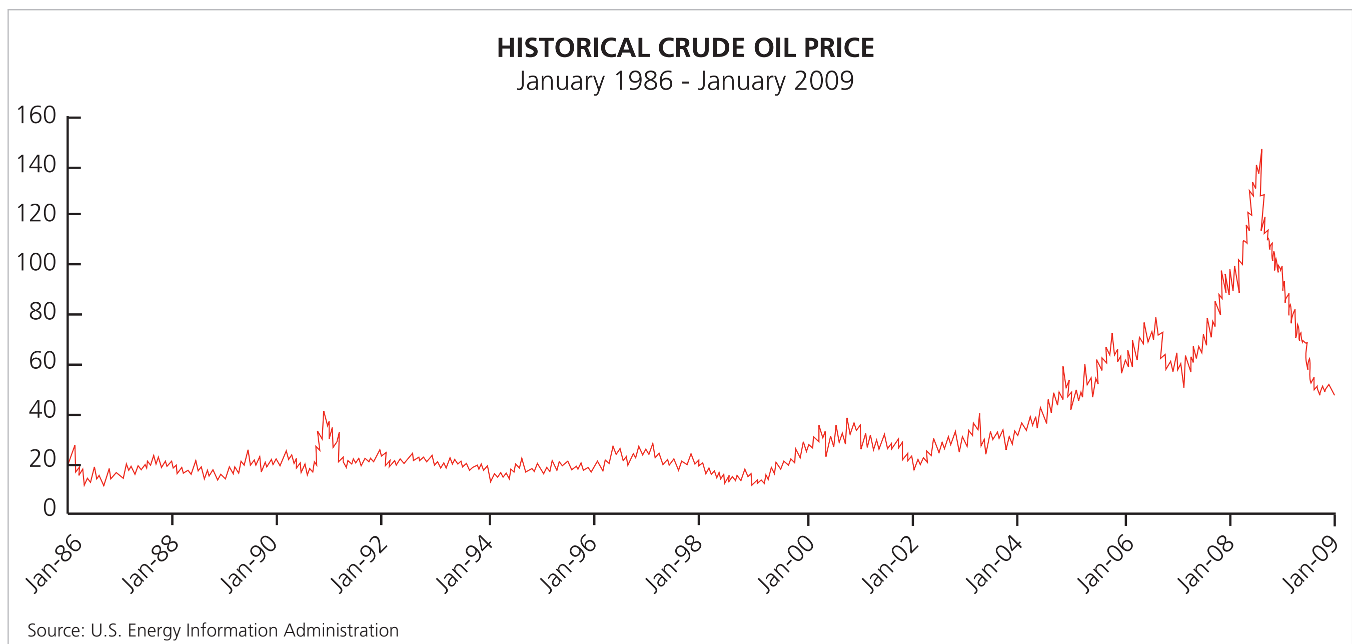

Figure 4.

THE RIGHT-SHORING DECISIONS: 4 KEY ISSUES

Is it time to consider right-shoring for your company? Evaluating the opportunity involves a variety of complex factors. Four key issues include:

1. Total landed cost transparency
2. The type of product
3. Ownership and shipping strategies
4. One-time costs and risks of moving production

1. COMPARING TOTAL LANDED COST

To make informed decisions, companies must be able to capture, analyze and manage all supply chain costs – known as total landed cost transparency – for both options. Total landed cost includes production expenses, such as labor, raw materials, property, plants, and equipment. It also includes two types of logistics costs – direct and indirect.

Direct logistics costs include transportation, warehousing and customs fees. The assessment is generally straightforward.

However, indirect logistics costs are too often ignored or under-estimated. Every country has hidden costs related to the maze of legal, cultural and logistical details essential to operations. Assessing these costs requires an experienced partner with local expertise.

Indirect logistics costs can represent a major portion of a product's total logistics costs. For example, a recent DHL Supply Chain analysis shows that indirect costs such as obsolescence and lost sales represent 89 percent of the logistics costs of a shirt. Direct logistics costs such as transportation, warehousing and IT were a small part of the expense. The analysis shows that indirect costs also represent a significant portion of the logistics expense for cars and personal electronic devices.

Without a complete understanding – and control – of total landed costs, companies experience "value erosion" that undermines their strategy for offshoring. As shown

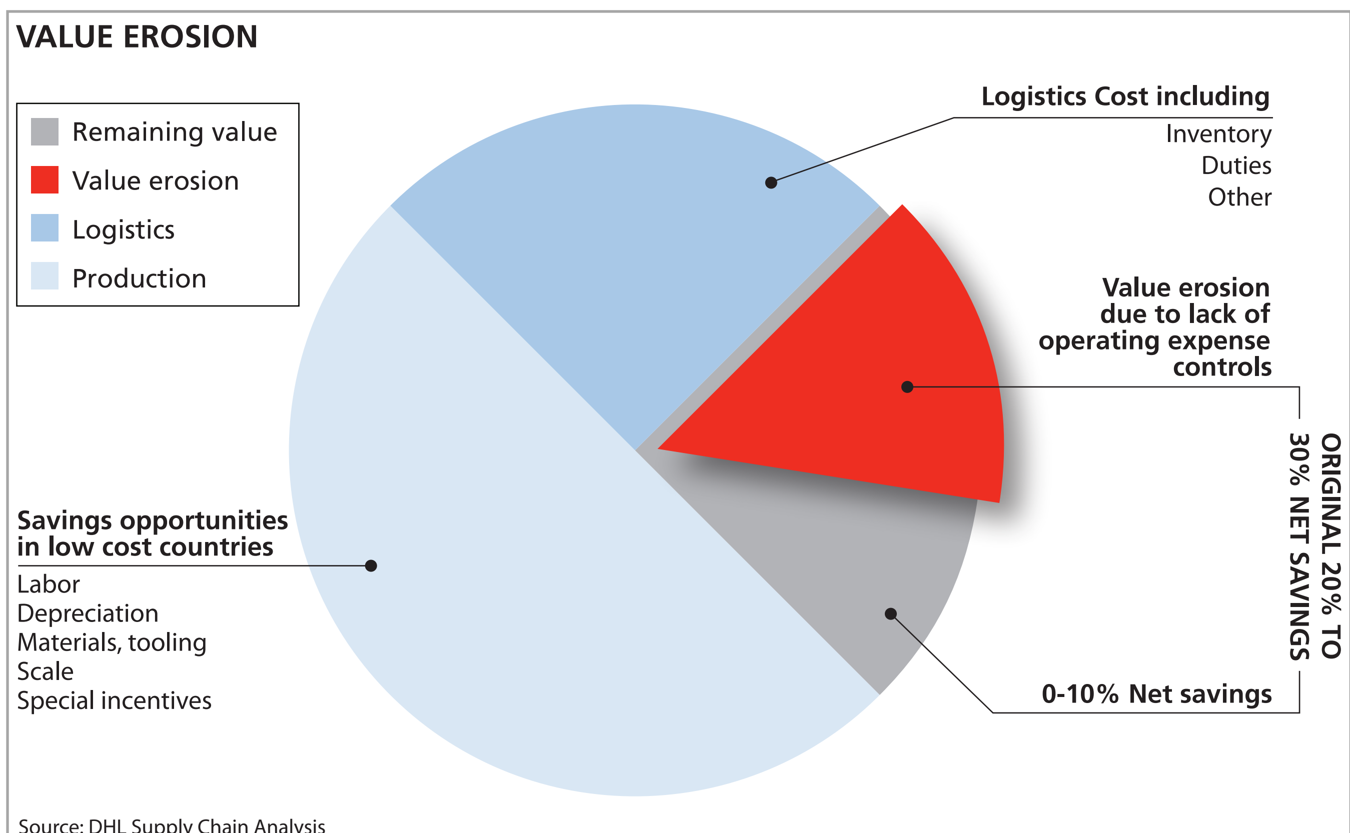

Figure 5.

in Figure 5, companies can attain a 50 percent savings in production costs by offshoring. Once essential logistics costs are added – both direct and indirect – the net savings are reduced to about 20 percent. But if the complexities of international global supply chain management are not managed properly, companies add a "red zone" of cost that erodes the value of the offshore strategy.

2. PRODUCT TYPE

While some products may still be ideally suited for offshore production, others are ideal for "right-shoring." These products typically have some or all of the following characteristics:

– Complex design. Products with complex design may require closer collaboration with the manufacturer or company's headquarters. Easier access to the supplier location – even simply being in the same time zone – may be a significant business advantage.
– Desire to protect intellectual property. Pirating has been one of the unfortunate byproducts of offshoring. Closer proximity of right-shoring can increase management oversight and help protect intellectual property.
– Large size/weight. A product's size and weight is a major factor in shipping costs. With unpredictable fuel prices, it may be cost-effective to right-shore production of larger products, ranging from servers and copiers to TVs and auto parts.
– Proximity of raw materials. Given unpredictable transportation costs, it may be cost-effective to bring production closer to the source of raw materials rather than continuing to ship overseas.
– Short lead times. Closer proximity to the manufacturer can speed delivery times and responsiveness to the point that it may offset the cost advantage of an offshore operation.

Products better suited to traditional offshore manufacturing are standardized, low-complexity items. These are typically mature products requiring a large amount of low-skill labor (see below).

3. OWNERSHIP AND SHIPPING STRATEGIES

In evaluating current offshoring operations, companies should assess ways to offset volatile fuel prices through a variety of ownership and shipping strategies. For instance, companies can find ways to ship larger lot sizes with less frequency to save on transportation costs. This approach can also involve configuring lots sizes, shipments and packaging to meet a company's specific needs.

Companies can also look for ways to:

– Manage demand and supply variability;
– Consolidate and de-consolidate shipments more efficiently; and
– Optimize modes of transportation.

Companies must also evaluate various inventory ownership options that can have a major impact on the viability of offshore operations. Examples include:

– Vendor owns inventory, which is typically delivered Duty Unpaid (DDU) or delivered Duty Paid (DDP);
– Seller owns all inventory and typically pays all transport from supplier factory;
– Free Carrier (FCA) or Ex-Works (EXW), in

PRODUCT DEVELOPMENT ATTRIBUTES

Favorable for Offshoring	Favorable for Right-shoring
– High labor content	– Design complexity
– Standardization	– Intellectual property requiring close protection
– Product maturity	– Capital intensity
– Skilled labor in-country	– Large size/weight
– In-country production required by government	– Proximity of raw materials

which buyer pays for transport from port of export; and
– Cost, Insurance & Freight (CIF), in which the selling price includes the cost of the goods, the freight or transport costs.

4. ONE-TIME COSTS AND RISK ASSESSMENT

The right-shoring analysis must include one-time costs. The company must establish a new manufacturing facility in the right-shore location – and also manage the costs of exiting the existing offshore plant. The analysis must include a thorough evaluation of the costs and complexities of relocating equipment and management personnel.

Equally important, the company must assess risks involved in the right-shoring strategy. Is there a readily available workforce with the appropriate skills? What are the security and safety risks? Is the political situation in the offshore location stable?

Finally, what will be involved in replicating the supply chain? This analysis must include each component and ensure every detail is covered. Fortunately, this process is becoming less complex as more suppliers operate globally and are able to expand in existing right-shore locations.

CROSSING BORDERS: 6 PAIN POINTS

Working across borders is always a challenge, and it is essential to understand each country's "pain points" in evaluating right-shoring vs. offshoring. Companies must ensure resources are in place to:
– Understand local trade practices and import/export regulations;
– Provide fully equipped on-the-ground local resources to solve problems;
– Manage legal, cultural and logistical details;
– Minimize investment and hidden costs in the foreign supply chain infrastructure;
– Secure visibility in the supply chain; and
– Understand how key product development characteristics impact the supply costs and related sourcing strategies.

PARTNERING WITH A THIRD-PARTY LOGISTICS PROVIDER

Given the complexity, some manufacturers are partnering with a third-party logistics company (3PL) to help evaluate and implement right-shoring decisions. The 3PL you choose should offer:
– On-the-ground expertise to uncover all hidden costs and ensure accurate evaluation of total landed costs;
– Ability to operate in both countries to facilitate the transition, which is typically organized in phases to ensure the supply chain continues to operate reliably;
– Existing infrastructure such as warehousing and transportation to help save money in fixed up-front costs;
– Expertise in rapidly deploying a predictable and controlled supply chain using proven IT systems and operational processes;
– Existing local partnerships and relationships that can streamline the transition and ongoing operations; and
– Transparency of costs, proactive management of information and control over flow of materials.

CONCLUSION

The global economy continues to evolve rapidly, driven by opportunities to reduce labor costs. These opportunities, however, are at least partially offset by the increased costs of managing quality, energy, sustainability and challenges associated with the extended supply chains.

Companies must stay flexible to adapt to changing conditions affecting the global supply chain. Evaluating whether right-shoring makes sense for your company requires in-depth expertise and global resources. The right 3PL can play a key role in helping manufacturers adapt–and win.

Raising expectations.

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