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Going beyond reshoring to right-shoring

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At a glance

The Stanford
Global Supply Chain
Management Forum
reshoring symposium
explores the need for
a more comprehensive
view of strategic
location decisions

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Introduction

For the last two decades, offshoring of manufacturing to low-cost countries like China was a no-brainer for many companies, particularly when evaluated using narrow quantitative-cost measures. Indeed, senior operating and financial executives often had to justify why they did not have more manufacturing in Asia.

Today, that's no longer the case.

Many companies have experienced the downsides of an extended offshore supply chain. This, along with ongoing structural shifts in low-cost regions, is prompting organizations to rethink past decisions. A conclusion will not be easy to reach, however: Companies now must consider a more complex set of factors, with no obvious answer or mandate to influence the decision-making.

Earlier this year, PwC sponsored the Stanford Global Supply Chain Management Forum (GSCMF) symposium, titled Reshoring: Beyond the Buzz, in which senior operations executives discussed the nuances involved in making these decisions. PwC's Stephen Kemper, Principal, discussed our current thinking on the issue, as did contract manufacturing executives and experts, and senior executives from three leading Silicon Valley corporations. The discussion was framed with commentary by Professor Hau Lee, Thoma Professor of Operations, Information and Technology, Stanford Graduate School of Business.

Attendees talked about the situations and factors that drive location decisions, as well as the steps some organizations are taking. The consensus? Most participants agreed that evaluating labor cost savings versus transportation costs provides only a superficial analysis, one that is insufficient for commitment of corporate resources. A more complete and strategic set of issues must be considered before action is taken.

Attendees mentioned four key factors that are often overlooked: the impact of the overall vertical ecosystem (with an emphasis on tooling), the strength of the US manufacturing skill base, the link connecting innovation and manufacturing, and automation opportunities. Many participants also discussed the need to influence government policies to ameliorate regulatory, tax, and skill issues.

Attendees agreed that, in order to balance these issues, companies must conduct meaningful analysis and implement incentives to support the resulting decisions. Throughout the day, participants touched on many emerging factors that should be included in companies' decision-making processes to improve margins.

Understanding the many models of shoring

Reshoring has become a hot topic in both the C-suite and in the operations organization. The interest in reshoring stems from a number of factors. These include political ramifications, supply chain shocks, improved US manufacturing productivity, prominent onshoring examples (Apple, Lenovo, and Global Foundries, to name a few), and shifting economics in low-cost regions.

The intent of the reshoring symposium was to help companies better understand the nuances of evaluating reshoring and related opportunities. The event began with an opening address from Lee, Faculty Director, Stanford Global Supply Chain Management Forum, followed by perspectives from PwC's Kemper, and a panel of executives and experts. Each session included robust Q&A and exchange of ideas.

To facilitate dialogue, PwC's Kemper defined the terms that describe the various location choices. They include:

- **Reshore:** Return or move work back to where the goods and services are consumed.
- **Onshore:** Source or produce work in the country where goods and services are consumed.

- **Near-shore:** Source work from an adjacent low-cost country, near the actual targeted market.
- **Offshore:** Send work from one country to another.
- **Right-shore:** Optimize locations to take advantage of cost, market, and resources for the best overall margin performance and customer satisfaction.

Participants noted that right-shoring, which is typically a combination of some or all of the other approaches, is becoming essential to optimize global footprint and value creation. Thus, while the conference description emphasized reshoring, the discussion ranged much broader and ultimately focused on right-shoring. It was noted, for example, that in cases where reshoring to the US is impractical, executives have instead evaluated the benefits of near-shoring operations to Mexico. In addition, attendees emphasized the tight link between insourcing and outsourcing, a key factor in manufacturing strategy. Lee noted that decisions about insourcing and outsourcing should be made in conjunction with developing an onshoring/offshoring strategy. He recommended that supply chain design be thought of in the context of a matrix with a combination of "on/off" and "in/out" decisions.

A new environment of complexity and risk

Kemper of PwC cited findings from PwC's Global Supply Chain Survey 2013 that demonstrate supply chain leaders today consider more factors in supply chain design and implementation than in the past. According to a separate study by IPC, supply chain executives in the electronics industry focus on a range of issues that include talent, risk, IP protection, sustainability, customer engagement, and quality. This complexity is mirrored in the specific considerations for location decisions.¹

Participants concurred that location decisions are more complex and nuanced today. In the past, Asia was the default choice due to its low labor costs and the fact that the disadvantages of an extended supply chain were not yet fully understood. As companies gained experience with offshoring, they also began to understand the drawbacks to an extended supply chain—higher supply chain risk, lower flexibility, and higher inventory—as well as the anticipated advantages.

Throughout the day, participants discussed various factors that favor or impede location decisions. A common theme was the need to take a thorough and balanced approach, while considering factors beyond simple quantitative cost metrics.

¹ IPC--Association Connecting Electronics Industries, *On-Shoring in the Electronics Industry: Trends and Outlook for North America*, August 2012

Changes and challenges to Reshoring

Participants noted that many of the factors that support reshoring (see Figure 1) are new or were previously not well-understood. An effective assessment of reshoring, therefore, requires a more nuanced and informed approach, one that also weighs current changes and challenges.

During the course of the day, participants identified five specific obstacles to reshoring: A limited vertical ecosystem, the skill base of US manufacturing companies, company internal incentives, US tax and regulatory policies, and design for automation challenges.

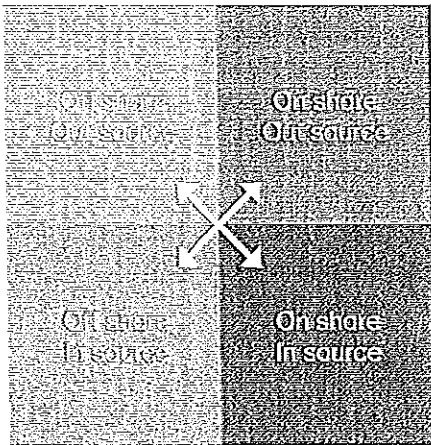


Figure 1

Limited vertical ecosystem: While a company may decide to reshore specific value-added activities, its unique vertical value chain is critical to maximizing the potential speed and flexibility of reshoring. But some participants note that if the vertical stack, tooling capabilities in particular, is not available locally, reshoring benefits will not be fully realized. While an electronics company may be able to move a surface-mount technology (SMT) line back to the US, for instance, it is not easy to create the rapid-tooling capability that is available in China. One speaker noted that a lack of investment in his company's vertical supply base forced it to increase overseas sourcing—in countries with little local demand.

US manufacturing skill base: Specific manufacturing skills are required to boost productivity and improve quality. Participants noted that these skills have atrophied in the US as the focus on manufacturing—by companies and students—has waned. Conversely, companies are enthusiastic about co-locating manufacturing and design as a means to improve innovation, processes, and results.

Internal company incentives: In general, internal company incentives focus on tangible cost reductions that are often translated to the supply base to achieve quarterly cost reductions. This focus makes it difficult for the supply base to reshore along with its customers. Typical incentives also discourage softer considerations, such as risk reduction and service levels, in customers' reshoring decisions.

US tax and regulatory policies: Participants noted that US policies are a major roadblock to reshoring and represent a significant need for improvement. While change is difficult to make, even at the state level, one prominent Silicon Valley executive urged attendees to work together to improve these policies and develop educational initiatives. Participants agreed that this type of action could be beneficial to the entire vertical ecosystem.

Design for automation challenges: Speakers noted that higher cost countries should leverage technology to mitigate their transformation cost disadvantage. Doing so, however, will require that companies redesign products and processes to facilitate automation.

In the wrap-up session, Lee observed that some reshoring issues can be controlled, while others cannot. Companies must not only assess existing tradeoffs when making reshoring decisions, but also consider how they can transform their operating environments to advance the case for reshoring over the long term. As examples, Lee cited that a company's product design needs to work with its "shoring" strategy—companies can't have a product that requires a lot of manual labor and expect that it will be

as profitable to make it in the US as it would be in a developing country.

In closing, Lee noted that other obstacles may be beyond a single company's control, but added that they can be influenced by a unified effort—if that effort is funded and appropriately coordinated. In other words, companies can't decide to reshore on their own—they need to make sure their supply chain partners will support its strategy and be willing to make the necessary investments.

The gist of reshoring: What goes where

Reshoring may be rife with obstacles and nascent in most verticals, but the trend is very real. And it is becoming increasingly viable due to factors that have emerged since the onset of offshoring.

The reshoring symposium revealed a maturing perspective on reshoring and attendees gained a deeper understanding of factors to consider regarding their supply chain network (see Figure 2). Most agreed that it is essential to evaluate a combination of reshoring, onshoring, near-shoring, and offshoring in order to right-shore and optimize supply chain networks. The decision is not simply whether to reshore or not, but rather which activities to place in which location.

A deep, disciplined analysis is required to make informed location decisions. The assessment demands executive judgment to ensure that both hard and soft factors are considered and that incentives are aligned. Companies should plan not only a multi-year roadmap, as is common in most transformation initiatives, but also define key breakeven points that will enable them to react to internal and external changes. Only then will they maximize supply chain performance.

Pros & cons: Key reshoring factors to consider		
	Pros	Cons
Cost	<ul style="list-style-type: none"> Lower U.S. energy costs Lower transport cost to serve U.S. market Lower inventory carrying costs Design for automation potential 	<ul style="list-style-type: none"> Labor cost differential
Regulatory	<ul style="list-style-type: none"> Strong IP protection Favorable exchange rate trends 	<ul style="list-style-type: none"> US tax and regulatory policies
Access/talent	<ul style="list-style-type: none"> Proximity to US market demand 	<ul style="list-style-type: none"> Limited vertical ecosystem US manufacturing skill base
Solution/risk	<ul style="list-style-type: none"> Higher quality solutions Tighter link to innovation Lower supply chain risk Improved sustainability 	<ul style="list-style-type: none"> Company internal incentives

Figure 2

*To have a deeper conversation
about how this subject
may affect your business,
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