Migrating Asia's Manufacturing Online*

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Asian manufacturers have traditionally maintained an edge as a source of low-cost manufactured goods. Their competitive advantage has come in the form of either inexpensive labor or very efficient production lines. As more low-labor-cost countries become easier to access and the internet enables competitors to streamline operations, these advantages are not enough to compete in the 21st century.

Thus Asian manufacturers must embrace use of the internet and web technologies to bring efficiencies to supply-chain and related processes to continue to thrive. They must reassess their role in the value chain, exhibiting a flexibility and adaptability that allows them to react quickly to changing market or partner conditions. They need to embrace a level of transparency to which they are totally unaccustomed and prepare to compete on value offered, not just on providing a quality low-cost product.

Take, for example, Taiwan's Powerchip Semiconductor. A few years ago this firm and Hewlett Packard came out with similar scanners that originally sold for $3500. Today HP sells that same scanner for about $40 and Powerchip Semiconductor has responded to the margin pressure by repositioning itself in the value chain. Now, rather than compete directly with HP, Powerchip Semiconductor has become a manufacturer for HP's scanner. Other Asian manufacturers need to take concrete steps, as Powerchip Semiconductor did, to maintain their status as preferred partners.

First, Asian corporations, especially those based in the more advanced economies of the region, need to continue to web-enable their traditional physical supply chain. This approach will allow them to reduce inventory levels, cut lead times and production costs, and ultimately be more responsive to their customers. One caveat: "It's important to note that introducing technology is not enough," notes Tuck School of Business professor Dave Pyke. "These efficiencies will not be achieved without using the information gained to rethink inventory, logistics, and production planning policies."

Next, firms need to web-enable their financial supply chain, from purchase order generation to final settlement. A survey by the Association of Financial Professionals in the U.S. shows that in 2002 and 2003, 52% of U.S. companies intend to automate these financial processes. Kurt Cavano, Chairman and CEO of TradeCard, a U.S.-based software vendor, points out that Asian manufacturers that sell to these companies will need to make these adaptations simply to work with these firms. Cavano acknowledges these changes can be slow, even in the U.S. He maintains that as recently as 2000, 78% of Cisco System's sales were made online, but Cisco then generated and mailed a paper invoice!

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Third, Asian manufacturers, accustomed to running low-cost commodity operations, must find ways to enhance their role in the overall manufacturing process. As Hanson Cheah, co-founder of AsiaTech Ventures, points out, the focus must be on value offered through being a partner in other aspects of the supply chain process. One possible approach: become collaborators in the product design process. Tuck professor Eric Johnson, who studies web-centric product design collaboration between western manufacturers and Asian suppliers and is Director of the Tuck School's Center for Digital Strategies, says "Asian firms that participate in the design process are better able to migrate their businesses away from commodity products to higher value customer goods". In an era of e-procurement, increased collaboration for supply chain efficiency or for product design, can help set apart a manufacturer, increase the value added, and lock in customers.

Finally, Asian manufacturers must be prepared to outsource where it makes sense. Corporations should examine their core competencies and their cost structures and take advantage of competencies others have to offer. The shift may be to their Asian neighbors in less developed and lower labor-cost manufacturing countries, or, in the case of China, perhaps to regions further inland.

Asian corporations have always been leaders in efficiency and in traditional networking skills. They now must combine these talents with web technology, ingenuity and collaborative flexibility, to create a new competitive advantage that will enable them to retain their role as preferred manufacturers and global suppliers in the future.