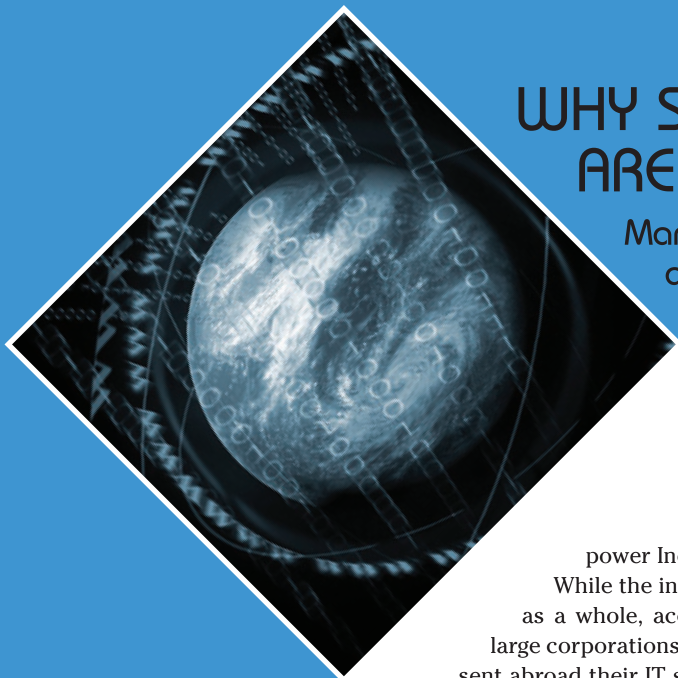

WHY SMALL TECH COMPANIES AREN'T OUTSOURCING

Many are Focused on Product Innovation – and That's Difficult to Shift Overseas

By Vivek Wadhwa

A common misconception is that today's outsourcing trend was driven by the tech industry. Even *The Wall Street Journal* ran a recent front-page article saying that Silicon Valley had helped power India's outsourcing boom by shifting sophisticated technology jobs there. While the industry does indeed outsource, it has had a minimal impact on the trend as a whole, according to new research. The leading outsourcers have actually been large corporations such as General Electric, Citibank, and American Express. Many of them sent abroad their IT systems, which are different from the innovative software products that tech companies develop. In fact, few tech companies outsource core product development, because it just isn't practical to send this type of innovation offshore. Most are small or midsize businesses and can't achieve the economies of scale that larger businesses stand to gain from outsourcing.

The tech industry has never made up more than 15 percent of the outsourcing market, says Carnegie Mellon University professor Ashish Arora, who has researched outsourcing extensively. Banking, finance, and insurance account for about 40 percent, followed by telecom (17 percent), and manufacturing (12 percent). Arora includes the product development that companies such as Microsoft, Adobe, and Cisco perform in their offshore locations in his estimates.

New research by Columbia University professor Amar Bhide helps explain why tech companies don't outsource core product development. Bhide interviewed the CEOs of 106 tech companies and concluded that the problems with outsourcing innovation greatly outweigh the advantages. His report, set to be released on July 20 at the Kauffman-Planck Summit on Entrepreneurial Research in Dana Point, California, suggests that fears of outsourcing in the tech industry are greatly exaggerated.

Bhide's research focused on venture-backed companies, which are usually better funded than most startups and which often receive encouragement from investors to go offshore. But the reasons why most did not outsource apply to nearly all small and midsize tech companies.

Competitive Advantage

Of the 106 companies he interviewed, 19 performed some product-development-related functions in their offshore offices. Of these, 11 were developing a core product abroad, and the rest were developing ancillary subcomponents or doing other work. An additional 29 companies had some relationship with outsourcing companies, but only five of these were for core products. Most of the work done abroad was related to data entry, customer support, and testing/quality assurance. Companies had overseas operations for a variety of reasons – some had no choice, and others saw opportunity.

A few companies that said they had to be abroad were developing products such as semiconductors, which have innovation embodied in physical goods. They explained they needed high-volume, low-cost production to remain competitive. Others were reselling foreign-developed products and said they needed to use the specialized skills and assets of their offshore partners. Some companies were founded abroad and moved to the U.S. or acquired a foreign company. Most of these couldn't move their development to the U.S. – it was disruptive and expensive. And there were issues with obtaining U.S. visas.

According to Bhide's research, the top reason tech companies chose to go offshore was for competitive advantage: They could get a wealth of highly educated workers at a fraction of the cost.

This allowed them to dramatically increase their development capacity and add product features that would otherwise not be cost-effective. Companies also benefited from having 24/7 development, so that one team could be fixing errors while the other slept. Venture capital firms also provided strong encouragement for companies within their portfolio to leverage the capital efficiencies of offshore development.

But only four of the 16 companies that were developing core products abroad, either in their facilities or through an outsourcing partner, had actually chosen to do so. The rest were founded or acquired abroad. The CEOs gave many reasons for not being able to develop their core products abroad:

Hurdles to Going Overseas

1. Communications/customer needs. Developing a product requires a deep understanding of customer needs and extensive user interaction. Locating R&D personnel away from customers limits the ability to develop innovative products that meet market needs.

2. Components must fit together. Complex software is more like a Swiss Army knife than a meat cleaver. The blade, bottle opener, and screwdriver have to work in an elegant manner and can't be developed independently. In a similar way, software development teams need to work closely together.

3. Management bandwidth. It is a lot more challenging to manage diverse teams at multiple locations and in different time zones. Additional layers of management are often required.

4. Fewer developers can often produce more. In the tech world, scaling up development teams doesn't always lead to greater productivity. Small teams are often the most innovative and productive.

5. Skills scarcity. The specialized skills and mindset that tech companies look for are hard to find. For example, India doesn't have programmers who have grown up to understand the intricacies of computer game development because few can afford the high-speed Internet connections needed for playing these games. Swiss programmers tend to be more process-oriented and less innovative. And Russian programmers usually have language issues, according to the study.

6. Intellectual-property issues. The greatest concerns were about China, where it is almost impossible to protect trade secrets, and piracy is rampant. Employees often leave to start ventures that compete directly with their foreign employers, and the laws provide little protection because they aren't enforced.

"The tech industry has never made up more than 15 percent of the outsourcing market"

7. Competition for talent. In countries like India, potential employees place greater value on the brand and prestige of the company they are joining than on stock options in a company no one has ever heard of. They put a premium on job security and career opportunities. So companies such as Infosys and Wipro get their pick of talent. And these outsourcing companies usually assign their top performers to large corporations that provide them with multi-year, multimillion-dollar commitments rather than to their small clients.

Not for Outsiders

I've founded two technology companies that outsourced some product development to Russia. I was one of the pioneers in outsourcing and have lived through the difficulties and know of the potential rewards.

But if I were building a new technology, I wouldn't trust an outside team to innovate for me. Outsourcing testing and support is one thing, but when you're starting up, all you have is an idea. You learn as you go, and can never predict what will captivate the market. You simply can't outsource your success to others who don't have as much skin in the game as you do. Bottom line: entrepreneurship and innovation are alive and kicking in the tech world. It won't be outsourced. This is one of America's greatest strengths and will help the country keep its edge in a globalized economy. **N**

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