

## Medical Device Sector May Find Expansion Opportunities in India

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By Lynn Yoffee

Most Americans are familiar with call-center outsourcing to India. But in a trend that may be gaining momentum for the medical device industry, more jobs in this sector might be headed overseas. And those jobs aren't just manufacturing components – they run the full gamut from research and development through to product launch.

A survey conducted by *Knowledge@Wharton*, the online business journal of the Wharton School at the **University of Pennsylvania** (Philadelphia), and **HCL Technologies** (Noida, India) reveals that medical device companies see outsourcing as a competitive and cost-saving advantage.

The survey included 264 responses from medical equipment manufacturers, vendors and other industry experts. Of those, 39% indicated that they were involved in medical device manufacturing or sales, and 35% in consulting or research. A variety of company sizes were represented as well, about half from companies with less than \$500 million in annual revenues, and half with more than \$500 million. HCL was prompted to conduct the survey based on customer demands.

"We've been working with medical device manufacturers in the U.S. and Europe now for seven years, working with customers based on pure vendor relationships," Pradep Nair, head of HCL's Life Sciences & Healthcare Practice, told *Medical Device Daily*. "Just in the last 24 to 36 months, customers are coming to us asking us to launch a product in India or Asia. There has been an uptick and we wanted to understand more about the market needs."

Previously, HCL clients primarily sought cheaper programmers for technical assignments. "Today," said Nair, who is based in Florham, New Jersey, "That relationship is changing to a partnership." HCL client companies are moving beyond cost-plus transactions for services on an hourly basis to agreements based on fixed bids or even profit-sharing in partnership agreements.

The survey, which was intended only to examine outsourcing issues related to India, found that:

- Although 72% of respondents indicated they have never outsourced any product development work, many respondents see relatively high potential benefits from outsourcing, particularly in manufacturing (51%) and IT (46%).
- Communications ranked as an issue of concern, partly because of low English skills among vendor employees, and partly because of glitches in telecommunications. "People overestimate the value of global IT teleconferencing and communications. Often, these systems do not work nearly as well as advertised," one respondent said in the survey.
- Most of those surveyed were optimistic about the capabilities of outsourcing partners: 84% agreed with the statement that "an outsourcing partner can appreciate the complexity of your varied supply chain and support you through the consulting and execution piece alike" and 78% said they do not intend to restrict R&D to their home country.

Medical device manufacturers' fears of intellectual property loss seem to be relatively low. Ronnie Toddywala, of **Johnson & Johnson** (Sommerville, New Jersey), said in his response that those fears are often just an excuse not to move forward. "Yes, they may be able to steal a circuit, but the question is,

what would they do with it? In most cases, the key IP is already filed, and it takes much more than a circuit to bring a product to life. Device manufacturers own the surgeon relationships that are key to developing the right product with the right clinical and economic evidence. That part of development is difficult to replicate,” Toddywala said.

- Cultural differences also can exacerbate communication problems. Although only 19% of respondents said that “cultural synchronization” was an extremely important factor in the decision to enter into an outsourcing relationship, a number of respondents said that their outsourcing projects have foundered because of cultural differences.

### **Warnings on the horizon**

While the survey paints a positive picture of medical device industry outsourcing, it remains a hot-button political issue for many in the U.S.

Alan Blinder, a professor of economics at **Princeton University** (Princeton, New Jersey), former economic advisor to President Bill Clinton and former vice chairman of the Board of Governors of the Federal Reserve System, often writes and speaks out against sending jobs overseas. He has described outsourcing as a third Industrial Revolution that, by his estimate, poses a risk to the employment of as many as 42 million workers in the U.S.

“It’s going to be painful because our country offers such a poor social safety net to cushion the blow for displaced workers,” Blinder wrote in a *Washington Post* op-ed column. “Our unemployment insurance program is stingy by first-world standards. American workers who lose their jobs often lose their health insurance and pension rights as well. And even though many displaced workers will have to change occupations – a difficult task for anyone – only a fortunate few will be offered opportunities for retraining.

“There will also be great political strains on the open trading system as millions of white-collar workers who thought their jobs were immune to foreign competition suddenly find that the game has changed,” wrote Blinder.

Similar fears have yet to really hit the medical device industry as a group. The **Advanced Medical Technology Group** (AdvaMed; Washington) has not issued a position statement on outsourcing. “This is not one of our priority items and therefore we are still looking into it,” an AdvaMed spokeswoman told *Medical Device Daily*.

### **Easy entry into emerging markets**

Nair said the market for medical devices is growing in the U.S. and Europe at a rate of 7% to 8% a year. At the same time, Indian and Chinese markets are growing at 25% a year. Reaching those Asian markets will require substantial changes in product design, user interface and cost structure.

“The biggest [change] is learning to build medical equipment at the right price point,” Nair said. “In the U.S., a dialysis machine might cost \$1,400, whereas in India, the market will only bear a machine priced below \$600.” In such a case, Nair said that an offshore partner is really “the only game in town. Who else can help you?”

Saikat Chaudhuri, assistant professor of management at the Wharton School, said one of the most surprising survey findings was that he expected to see a lot more conservatism when it came to doing things like R&D abroad. “I thought there would be a lot more resistance. As you go upstream, it’s hard to do these kinds of jobs from a distance.”

But he points to major U.S. firms that already are involved in major outsourcing endeavors.

“Look at **Cisco**, they use a lot of vendors, but they are also creating another entity in India. You have to see where you can get more work done. Look at the Japanese auto industry. Look at how the Japanese have created jobs in the U.S. It’s part of the global economic cycle. If you protect jobs [when it might make more sense to outsource overseas] then those firms become less competitive and they can end up

like a **General Motors** and that would be a catastrophe [to the U.S. economy]," Chaudhuri said. "Look at the airlines. They are shifting more capacity from domestic routes to international traffic. So they might serve the U.S. less, but they are ultimately surviving by doing that."

One HCL executive cautions that medical device makers should maintain realistic expectations. "Understanding the capabilities of the outsourcing service firm is important," said M. Venkatesan, associate vice president of embedded systems for HCL. "Often, for example, the experience level in the hiring organization is much higher than in the vendor – say, engineers with 15 to 20 years of experience at one company compared to an outsourcing firm where even senior engineers will typically have only six to seven years of experience. These issues tend to sort themselves out over time, once the younger engineers have proven their mettle to the client."

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