India companies turn to internal training for IT expertise development

Sheila Riley
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Indian companies are beefing up their workforce requirement with internal educational programs and on-the-job trainings designed to quickly improve the expertise of new recruits especially in the high-tech industry.

These steps have been taken due to problems with the subcontinent's uneven education system, which many companies believe is still lagging in the areas of technology research and development, according to researchers with the Kansas City-based Kauffman Foundation.

"How the Disciple Became the Guru: Is it time for the U.S. to learn workforce development former disciple, India?" authored by Harvard and Duke researchers, looks at 24 Indian companies in emerging sectors, including IT, business process outsourcing, software, pharmaceutical, and retail, financial, hospital, and education services.

All have grown quickly in spite of major roadblocks—what the report calls "skills shortfalls and talent shortages".

"Indian industry does not rely on its education system to provide with what it needs," said Vivek Wadhwa, a fellow at Harvard and the lead author of the study. "Companies act as surrogate universities. They hire for aptitude and potential, not specialized technical skills."

Taken on their own, India's workforce development efforts aren't unique or innovative. U.S. and European companies have had such programs in place for decades.

The innovation comes from integrating programs into day-to-day operations and systems of career advancement; the use of technology in managing the processes; and the decision-making that is based on them, the report stated.

India's top five IT companies—TCS, Infosys, Wipro, Satyam, and HCL—hired some 120,000 new employees in 2007, most coming straight from Indian universities, the report stated.

Training of what companies describe as "freshers" is a major part of corporate strategy, with CEOs and senior employees often deeply involved. It can be lengthy—and costly.
Take the case of Infosys. Most of its engineering recruits take an intensive 16-week program costing over $6,500 per new hire. Non-engineer new employees do a three-month program, and computer science recruits do a six-week program. India's successful workforce development poses a question, Wadhwa said. If internal workforce training can turn products of a weak education system into first-rate engineers and scientists, what could be done in the U.S., where workers have some of the best education in the world?

"India's system produces world-class engineers and scientists," Wadhwa said. "It may be time for the U.S. to learn from its former pupil and take a hard look at our business methods in the search for ways to maintain our competitive edge."

It's true that the Indian model works well, but that's for India-specific reasons, pointed out Santosh Kurinec, who heads the microelectronic engineering department at Rochester Institute of Technology.

India lacks a sound accreditation system for higher education. The workforce absorbs and trains most students who graduate from unaccredited institutions, she said.

"What India is doing is a good thing because it's keeping the youth engaged in technological development. That's very important for the economic and political stability of a country," Kurinec said.

But while it makes sense for India, the U.S. is another case, she said. "This system works for India at the moment, but the U.S. shouldn't compromise its own educational system," Kurinec said.

Instead, the U.S. can add another layer of education—taking students from two-year and community colleges and giving them workforce training.

"That can be added on to the current system, which produces leaders and innovators," she said.

There are other steps U.S. colleges and universities can take. A good example is the cooperative education program in RIT's engineering department, which allows students to have paid employment while still pursuing their education, she said.

"This is another model that should be enhanced for the U.S. to stay competitive," Kurinec said.