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BOTTOMLINE

Low-cost tech helps turn the tables on conventional wisdom

Business At The Bottom Of Income Pyramid

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From literacy testing to innovative eco-tourism, HP Labs India is on a wooing spree. It clearly shows how there's business to be made from information-communication-technology (ICT) even at the bottom of the income pyramid. Here's how:

Way out in Kuppam — a small village in Andhra Pradesh — a farmer takes a literacy test on the touch screen interactive system. While the system asks him basic questions in Telugu, a web camera takes his photograph and prints it out on a certificate with his test results as an incentive.

While this experiment, driven by Dr KSR Anjaneyulu, department director (focusing on language technology) at HP Labs India, might just be a test run for a project like this, the possibility of a state government adopting this to gauge levels of literacy and perhaps even use this medium to enable occupational education is close at hand.

And in yet another spot on the banks of the Cauvery river in Karnataka, a group of scientists try out a unique experiment of using portable technology powered by solar energy for facilitating easy photography, aimed at eco-tourism.

This experiment, consisting of a miniature sub-Rs 10,000 HP printer, attached to an HP digital camera (both products currently available for sale in developed markets) and powered by solar panels (developed in India) is all about being able to take instant pictures and print them on location at minimal costs.

Interestingly, both prototypes according to HP Labs India research director Dr S Ramani were created to showcase how easily low-cost technology for mass deployment could be created in India, fully understanding the needs of the country.

“HP Labs in India is focused on research with a horizon of three years and beyond and for India we particularly focus on language technology and communication including low-cost access devices. But the thrust is on building technology that will have a sustainable revenue model and of course mass appeal,” Dr Ramani said.

In terms of particulars of experiments, the literacy testing solution could be deployed to test literacy levels on a large scale while introducing occupation-specific learning in different communities.

“For example, our research has shown that many a time learning is contextual and generalised learning comes only later. By weaving in Indian concepts and contexts into the system this could be a low cost mass instruction tool for a state government,” Dr Ramani said.

And as for the portable solar-powered instant printing solution, this concept could well emerge as the next small tourism-dependent entrepreneur’s manna from heaven. “Suppose we make this equipment, which will probably cost Rs 17,000-20,000, available for rent and especially at well-known tourist locations, it could be offered as a fun service for travellers to get themselves instantly photographed. And that too at a small cost and good quality. This could also be suitable as a technology for researchers when on the move,” he added.

Dr Ramani also draws a strong co-relation between HP Labs’ focus and the paper presented by Harvey C Freuhauf Professor of business administration, University of Michigan Business School, CK Prahalad and Professor of strategic management, University of North California, Stuart L Hart, on strategies for sustainable development at the bottom of the pyramid.

In the paper, the worldwide population of 6 billion people is organised into four key tiers of the pyramid with the top representing the top purchasing power parity (PPP) of \$20,000 dollars plus, while tiers 2-3 represent \$1,500-20,000 and the bottom tier represents 4 billion people and less than \$1,500 of PPP.

Instead of the traditional focus on the top of the pyramid, the theory being proposed says that it is viable to have a business model when looking at the bottom tier as well by selling small-priced items to an extremely large number of people. This kind of focus forces a rethink on conventional wisdom on technology and business models as well as sustainable development. In fact, it places the bottom of the pyramid as a potentially attractive market for a business savvy multinational corporation.