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Giving micro-finance the IT edge

Micro-finance can be a vital financial concept for empowerment of India's masses who are extremely poor, and semi-literate. And when IT is added to this financial concept, it can result in great things. Frederick Noronha profiles Hisaab, one tool that aims to do exactly that.

He has been spending time in India even as we start seeing signs of a reverse brain-drain with skills and talent showing up from among expatriates keen not just on understanding their roots, but working to improve things here.

Tapan Parikh (27) says his parents migrated from Baroda in 1972, and he was born in Queens, NY, and grew up "around New York City". After graduating in molecular modelling, he got his Masters' in Computer Science and is currently a student in the PhD programme at the University of Washington. Since 2000 he has been working in India in diverse ventures.

Micro-finance, an attempt to get the poor to help themselves by collecting small sums of money and loaning it between themselves, is all set to get a leg-up from IT if Parikh and his team have their way.

Their new software is in its final stages of readiness to make it easy for simple villagers to undertake complex financial transactions. It's called Hisaab (accounts).

What's unique about Hisaab is that it not only makes the account-keeping process simpler, but also ensures that people with low-literacy skills can use this new package.

"This software has a different kind of user-interface. It has been designed with low-literacy groups in mind," explains Parikh. Instead of names and text, it has more numbers involved. It's obvious, but we often forget that it's easier for the semi-literate to read numbers.

"Users could replace someone's name with a code-number. Numbers are also easier to remember," says Parikh. It's easier to type in a number too.

How the software works seems simple enough, at least in theory: Each month, a group of women meet and puts together Rs 50, 70 or 100, or some other predetermined figure.

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Over time, this generates into a corpus of money that can be used for income generation, tackling sickness, or the loss of a job. Because the group works collectively in saving and loaning out their resources, repayments tend to be high due to peer pressure against defaulting.

"Money is put back, and over time, it grows. This allows larger loans to be taken. The core-goal is to rotate money as much as possible, so it supports productive activity. So, a rupee put in gets used not two or three times in a year, but revolves around 10-11 times if possible," says Parikh.

He says such groups expect to link up with banks and NGOs who are working on micro-finance, and NABARD (the Indian bank for agriculture and rural development), which also offers loans to such self-help groups.

"Due to their collective liability, they have shown better repayment rates. If one person doesn't pay, everyone would be less likely to get a loan. Repayment rates are as high as 90-95 percent while individual repayments elsewhere could be 40 percent," argues Parikh.

"This is not just theory. It works in practice too. It depends on how strong the groups are, and how well managed. You need to build capacity in accounting, management and discipline," says he.

To make the software user-friendly for the semi-literate, it's being built up textually-light, with a greater number of images and graphics. Currently, it is being built up by teams at Media Labs Asia and Human Factors International. HFI is a Fairfield, Iowa headquartered group, which says, "We make software usable." It has its India office in Mumbai.

Recently, the team putting together this software went and gave a demo to potential users in Tamil Nadu. In Madurai, the team met with CCD (Covenant Centre for Development), which is led by N Muthu Velayutham. Feedback was positive.

Its demo version has been done in Flash, while actual development would be done in Java meaning that the software could be run either on the widely used Windows platform, or the increasingly popular GNU/Linux operating system.

"We want this to be an empowering tool (for the villager and micro-credit groups). By being able to manage their own finances in a more sophisticated way, they will now be able to undertake more complex transactions," says Parikh.

For instance, withdrawals and deposits could be more arbitrary and need-based than would otherwise be possible in a more traditional form of accounting. You don't have to save fixed sums of money just because it makes accounting easier. "Complex financial transactions are possible without accounting hassles," says Parikh.

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Bangladesh's Grameen Bank is perhaps the best known model of micro-finance in the Third World. That has come in for some criticism though. "Perhaps over time it has got centralised and institutionalised. But we want to ensure that contact remains with the local people, and to focus on minimum external intervention," says Parikh.

"We are still working on some of the research issues in the UI design. But we are still at an early stage," cautions Parikh. This demo interface design is primarily the work of Kaushik Ghosh, an interface designer from the prestigious National Institute of Design, who works at Media Labs Asia.

Incidentally, Media Labs Asia (MLA) is a network of R&D institutions. To bring the "benefits of new technologies to everyone", it is trying to build partnerships with research institutions, industry and NGOs.

Media Labs Asia has been set-up as a non-profit organisation with seed-funding from the government of India. It has been appointed by the United Nations as its academic and industrial body for the region in the newly created UN ICT Task Force.

Headquartered in Mumbai (see www.medialabasia.org), it has research laboratories created on the campuses of the IITs at Mumbai, Chennai, Delhi, Kanpur and Kharakpur.

Those on the team which have been working on this project are Kaushik Ghosh and Tapan Parikh of Media Lab Asia; and Puneet Syal, Sarit Arora, Abhijeet Thosar and Apala Chavan of Human Factors International, Mumbai.

Tapan Parikh can be contacted at tapan@media.mit.edu. Check out more details about Hisaab at http://hisaab.sourceforge.net