Review: Design Studies for a FMS for Micro-credit Groups in Rural India
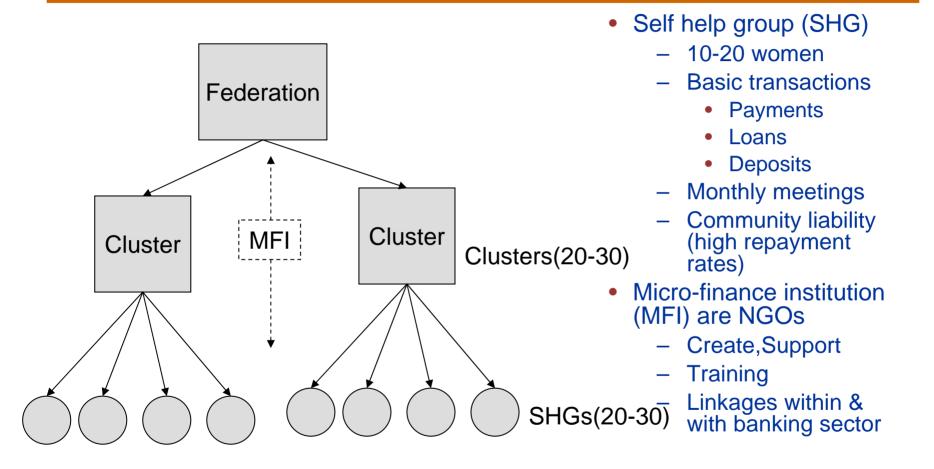
Anonymous MIT Student

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General Overview

- Authors – Tapan Parikh(UW), Kaushik Ghosh(MIT), Apala Chavan(Humanfactors)

- Design a User Interface
  - Needs Analysis
  - Iterative Process
  - Prototyping

- Target – Community based micro-credit groups

- Focus – Rural India (Aurangabad, Madurai)

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Micro-Finance in India

- Self help group (SHG)
  - 10-20 women
  - Basic transactions
    - Payments
    - Loans
    - Deposits
  - Monthly meetings
  - Community liability (high repayment rates)
- Micro-finance institution (MFI) are NGOs
  - Create,Support
  - Training
  - Linkages within & with banking sector

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Micro-Finance Issues

- High Illiteracy (43% - 286 million Adults)
- Documentation at various levels
  - Tracking finances, credit
  - Better management of funds
  - Law requirements
  - High volume (small transactions)
- Remote Areas
- Technology limitations

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Numeric Interfaces – Field Visit 1

- Genesis at Self-employed Women Association (SEWA) bank in Ahmedabad
  - "Oh, we can understand numbers fine, We can even do most simple calculations ourselves. It is only text and words we have a lot of difficulty with."
- Field Visit 1 : Aurangabad
  - Contextual Studies
    - Notebooks & Ledgers
    - Help for educated kids attending school
    - Sequential entries (tabular, ordered by name)
  - Paper prototypes

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Field Visit 1

- Paper Prototype
  - Understood well
  - Good Feedback

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Figure 2 – "An early keypad-based paper prototype."
In Parikh, Tapan, Kaushik Ghosh, and Apala Chavan.
"Design studies for a financial management system
for micro-credit groups in rural India," In *Proceedings
of the 2003 Conference on Universal Usability*.
Vancouver, British Columbia, Canada: ACM, 2003.
doi:10.1145/957205.957209.

Field Visit 2 – Madurai, TamilNadu

- More Mature SHGs managed by CCD(Covenant Centre for development)
  - Started 150 SHGs, 4 Federations
- Context
  - Studied all levels, spending more time
  - Verification of learnings from Aurangabad
  - Relatively higher literacy
  - Schools kids and literate man involved
- Prototype
  - Interactive prototype (laptop) testing
  - People familiar with computers
  - Quick learners, ability to use touch device

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Field Visit 2

- Prototype feedback
  - Does not match notebook format
  - More colors
  - Thrown off by Abrupt menus

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Figure 5 – "An interactive prototype…"
In Parikh, Tapan, Kaushik Ghosh, and Apala Chavan.
"Design studies for a financial management system
for micro-credit groups in rural India," In *Proceedings
of the 2003 Conference on Universal Usability*.
Vancouver, British Columbia, Canada: ACM, 2003.
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Field Visit 3 - Madurai

- Extended 2 month study
  - Focused groups(32 women, A to D – order of literacy)
- Icons correlated to ideas are better!
  - Led to new interactive prototypes
  - Frequent sessions, rapid development
  - Direct feedback from users
- Final Design emerged
  - Well understood by 3 groups, D got quite familiar

Final Design

- Tabular Data Organization
- Numeric Data Formats
- Icons
- Iconic Legends (audio feedback)
- Discrete Task Spaces
- Color

Image removed due to copyright restrictions.

Figure 6 – "One of the final successful designs…"
In Parikh, Tapan, Kaushik Ghosh, and Apala Chavan.
"Design studies for a financial management system for micro-credit groups in rural India," In *Proceedings of the 2003 Conference on Universal Usability.* Vancouver, British Columbia, Canada: ACM, 2003. doi:10.1145/957205.957209.

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Conclusions

- Context is very important!

- Numeric to Iconic Correlation

- Importance of physical models and tangible artifacts (touch & feel)

- Learnt the entire system – MIS being developed

- Hybrid technologies (paper using RFID etc)

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Questions

- Why not just Ahmedabad (first study)?

- Quest for focused lead Users?

- Does this help? – Study was not for mobile phones

- Experiences with UI design so far?

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