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M-banking and M-payments for social impact

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<http://research.microsoft.com/research/tem/>



Computer-skills camp in Nakalabande,
Bangalore

Understand potential
technology users in
developing communities

Adapt, invent, or design
technology that contributes
to socio-economic
development of poorer
communities worldwide

M-Banking/M-Payments

A project exploring household impact, social context, and UI/UX challenges among low-income, 'unbanked' populations

Partnership w/ Consultative Group to Assist the Poor (CGAP)

Research activities

- **Exploratory focus groups** with G-Cash and Smart Money users in Manila
- **Interviews** with small business owners in India about mediated credit relationships
- **Profiles** of Equity Bank and M-Pesa users in Kenya
- **UI/UX assessments** of low-literacy users of Wizzit in South Africa, G-Cash and Smart Money in Philippines, and a mobile-savings pilot in India
- **UI prototypes** for low-literacy users



No universal m-banking experience

Regulatory Structures

- KYC
- Anti-money Laundering
- Interest
- Bank partners

Technical Platforms

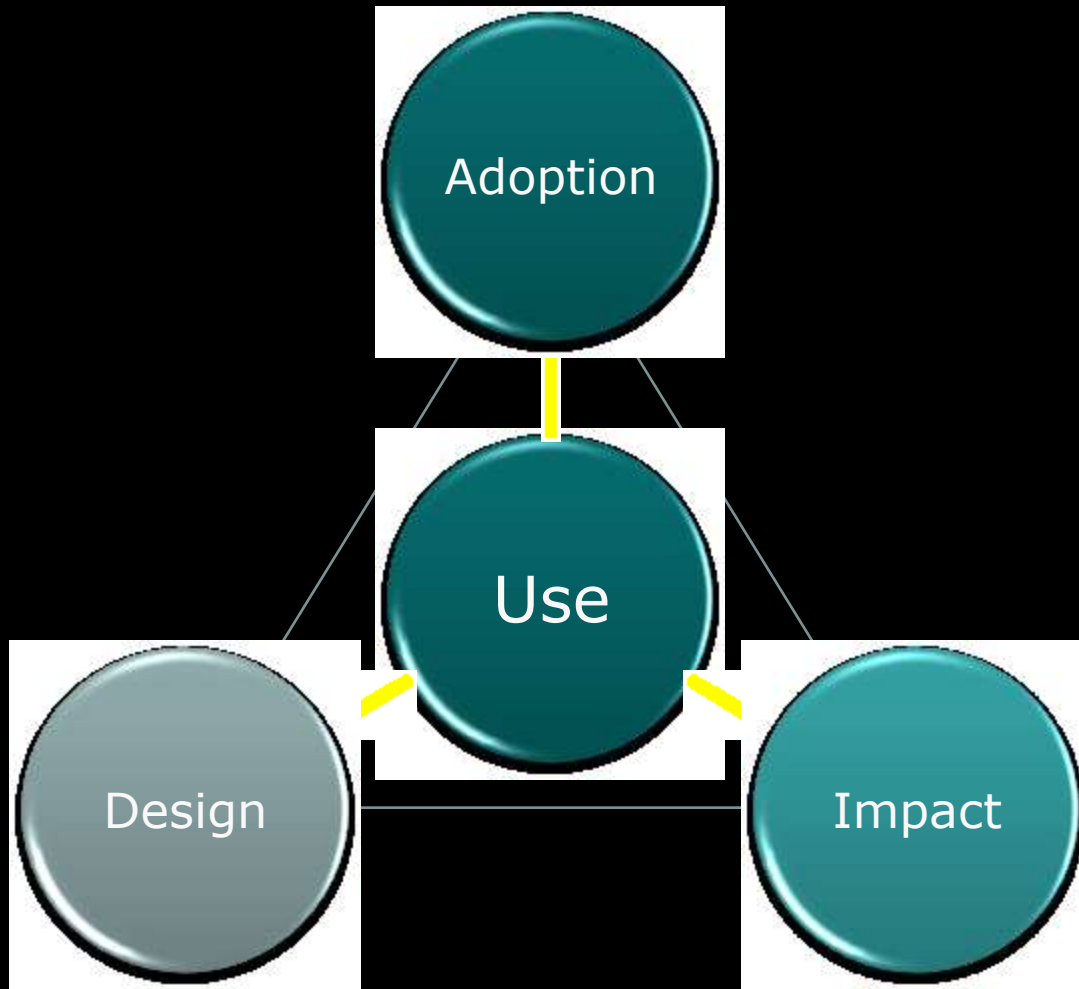
- Airtime only
- SMS
- USSD
- GPRS/Java
- Browsers
- Smart cards

Features /UX

- Agent Network
- Languages
- Texting norms
- Fee structures
- Where funds are held

Store value, cash-in and cash-out, and transfer value between accounts

Linking adoption, impact, design and use



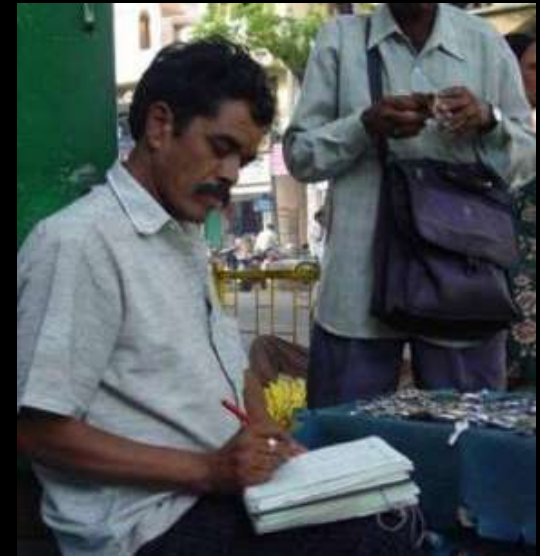
One's enthusiasm depends on expectations

To build, deploy, regulate, or assess m-banking/m-transactions systems, *integrate research on actual use*

There is actionable information **in these links**

Use: Existing Payment Mechanisms

“it is no longer acceptable for prospective providers not to inform themselves of what their future clients are already doing and what services they appear to need”, Ruthven (2002)



Not just Western Union....

- Hand Carry
- Pawn shops
- Post office
- “Flying money”/Hawala, etc.
- Busses (txt me the bus #)

The world’s 200 million diaspora used *something* to transfer \$320B in remittances

Hundreds of millions more use various strategies to save money

An ongoing repertoire

Use: Socially Embedded Transactions

“Family only... It is only to our relatives... If it is friends, then it is a loan. It is difficult, because we are not rich...we are already having difficulties sending to our parents so we cannot send to our friends anymore.”

“My friend asked me for a favor...he was our neighbor in Bacolod... Now he is my officemate. He asked, and please send to my sibling and then I will pay you on payday”



Manila focus groups

Lending vs. Giving vs. Paying

of
transaction
partners

Size and
frequency of
transactions

Handset
sharing

Domestic
Dynamics

Use: Mental models of mobile money

Is it a wallet, a box, or an envelope?

- There are few ways to wrap or “gift” a digital money transfer
- How mechanics of system are (mis)understood (SMS to the ATM?)
- Lots of transactional assistance observed in Kenya, India
- Trust in the various elements of the network – agents, hardware, software, operator
- Misalignment in expectations and metaphors between operators, analysts, and users.
- Navigation and interface issues for low-literacy users



Linking use and impact assessment

Example: A Kenyan water seller

- Migrated to Nairobi, whole family remains in village
- With MPESA, he has increased from 2 transfers to 3 per month
- Saves the 800ksh cost of the trip back home
- New amounts are smaller
- But the cumulative monthly transfer is sometimes larger (3000-6000 ksh instead of 3000-4000 ksh)



Linking use and impact assessment

What does using 'unbanked' imply about our view? Or 'transformational'?
Sorting through the first-order effects alone will take time.

Primary

- Lower fees
- Smoother or more frequent transfers
- Higher productivity (travel and waiting time)
- Lower risk
- Use for savings
- Access to credit(?)
- Paper trails for credit assessments(?)
- New transaction partners(?)

Broader

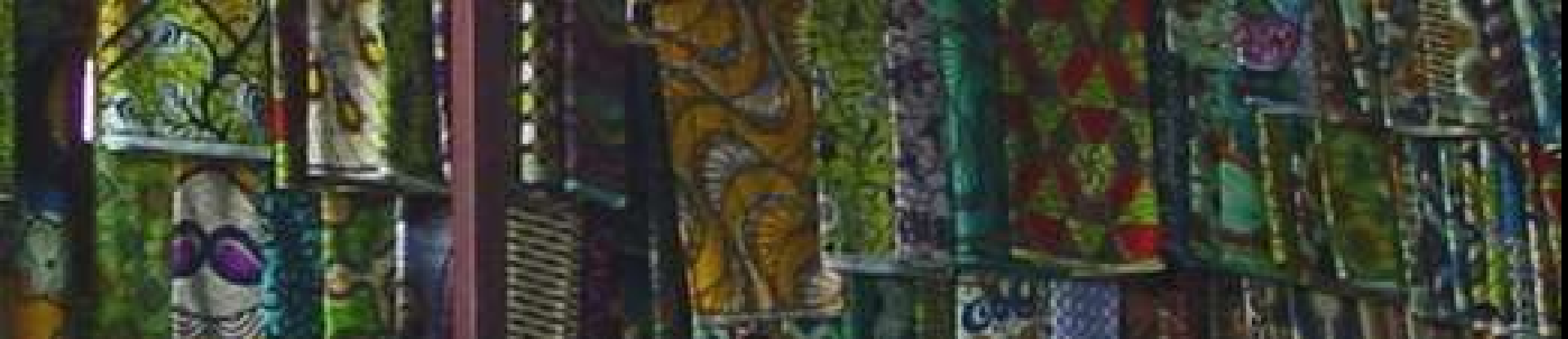
- Altered rural-urban flows
- Changed dynamics in stretched families; gender differences?
- Changes to small enterprises
- Long-term 'life events'(?)**
- Macroeconomic impacts (taxation, formality, float, money supply)(?)



Adaptations for directed impact

	P2P transfers	Payments	Disbursements	Aggregations
Current	Remittances	Utility bills, airtime	Payroll, government benefits	Fundraising, new lending models
Directed impact	Community models, disaster response	Microfinance Loan Payments	NGO operations (field staff) Incentives (health, education, etc)	Crowdsourcing

Successful interventions will review and learn from emerging norms of use



Thank You!

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www.research.microsoft.com/~aratan/FSD.htm