

**Electronic Banking for the Poor:
the Changing Marketplace,
the Customer Value Proposition,
the Business Case,
the Innovators and
Success Factors**

BSM Finance – S & C Forum

2nd December 2005

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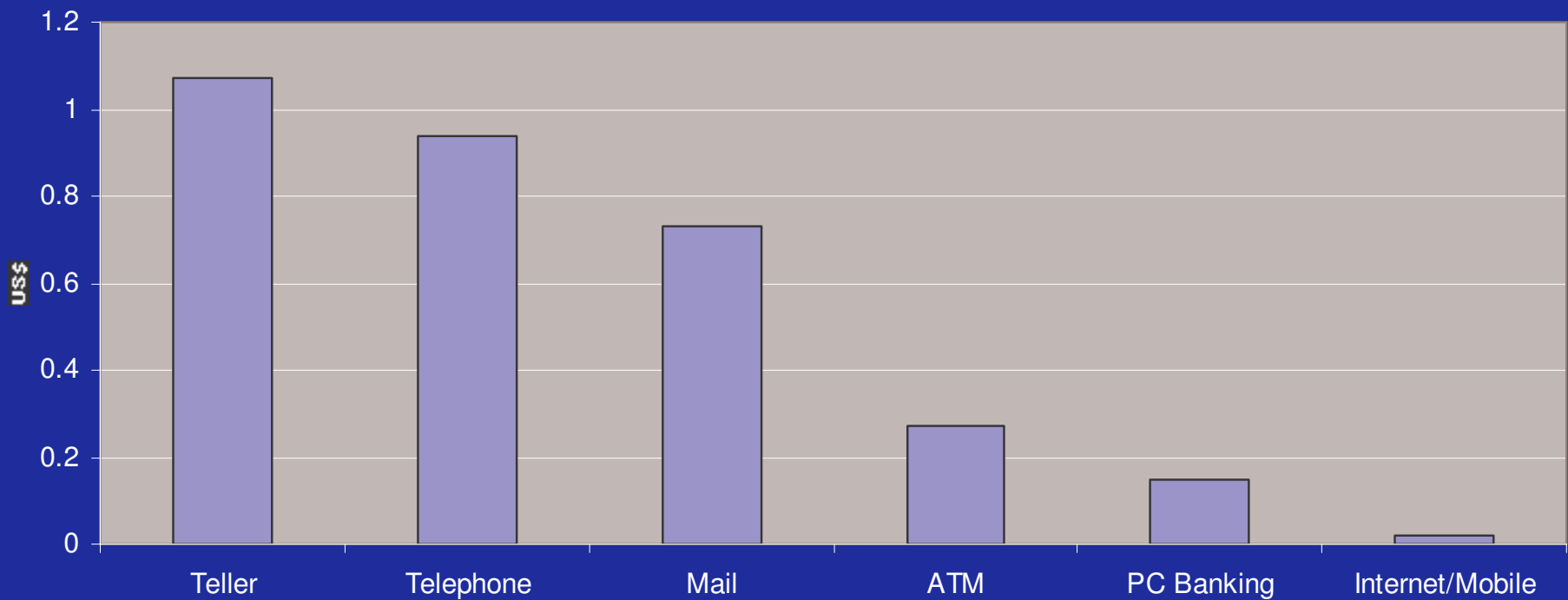
The Changing Marketplace

- Increased competition and the reduced cost of technology are rapidly changing financial markets.
- E-banking is likely to be a significant component of the product delivery and customer strategy of cutting-edge MFIs in the future.
- *Does e-banking not offer the prospect of substantial, if not massive, progress in banking the poor, provided certain threshold conditions are met?*

-David Porteous, FinMark Trust

Why Do It: The Huge Potential of Technological Innovation (1)

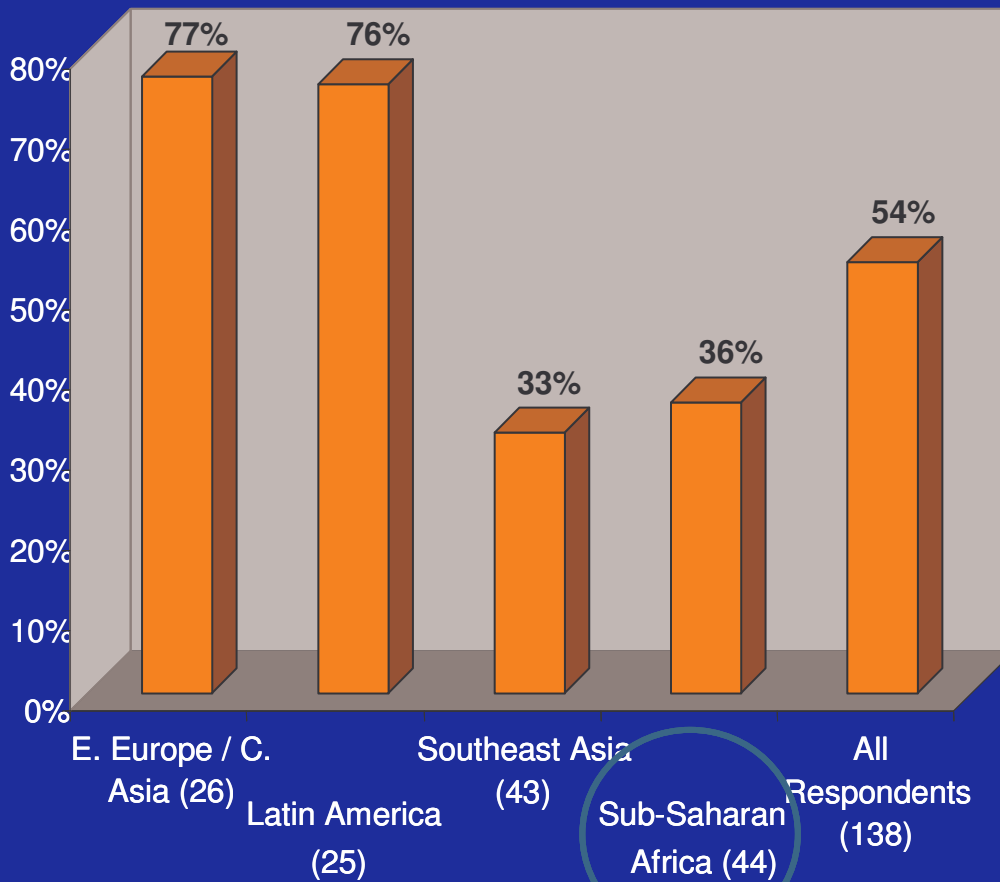
TRANSACTION COST PER DISTRIBUTION CHANNEL



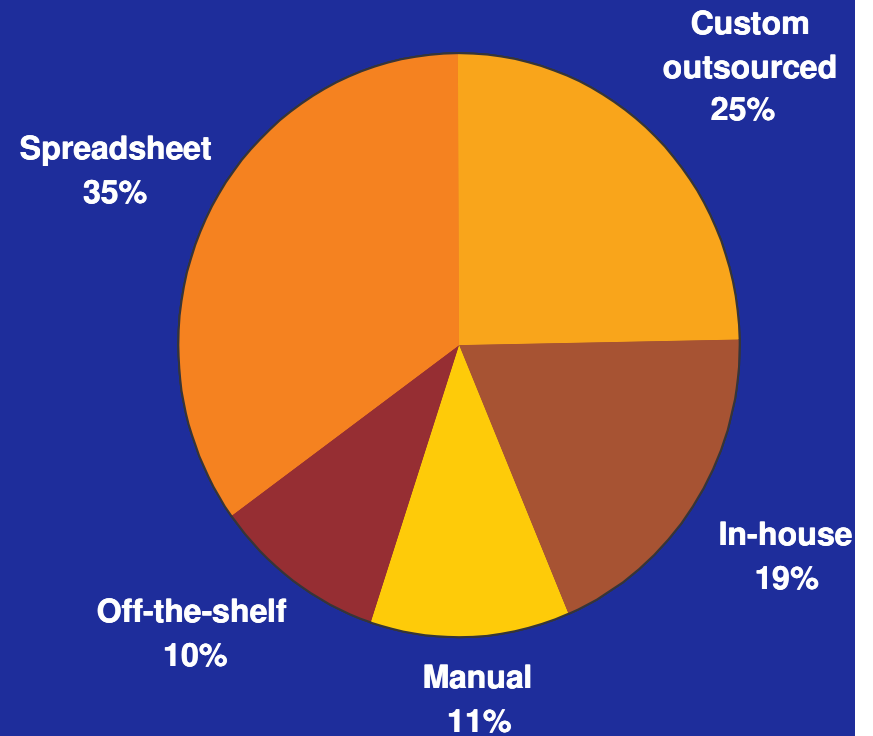
Source: BAI

But Low Levels of Computerisation in Microfinance

Computerization by region



By type of MIS



What Is Electronic Banking?



Automated Teller
Machines



Personal Digital
Assistants



Mobile
Branches



Interactive
Voice
Recognition



Internet
Banking



Point of Sale Devices



Cell phone
Banking

Automated Teller Machine (ATM)



Pros

- Cost effective
- Increase hours and accessibility
- Innovations to support semi literate... biometrics and talking ATMs.

Cons

- Require power, communications
- Regular cashing
- Central database
- Support infrastructure
- Appropriate locations often limited

ATM Growth In Kenya



Personal Digital Assistants (PDAs)



Small, handheld digital computers that can run specialized programs to manage MFI and client data and perform financial calculations

Requirements:

- Well functioning MIS
- High speed access to MIS data from branch offices
- Capable technical support
- Solid institution and good products

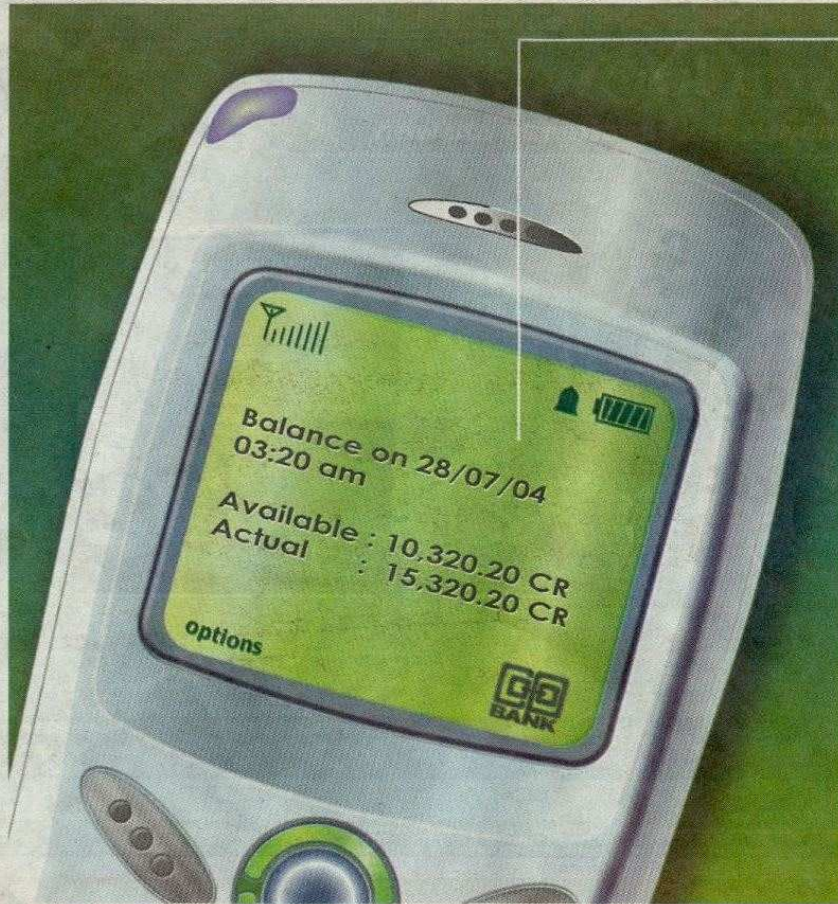
Pros

- Increased productivity of field staff
- Applicable to range of tasks
- Can run various software programs
- Standardize procedures
- Reduced volume of paper records
- Reduce labor costs

Cons

- High initial and maintenance costs
- Long development process (9 months to 2 years)
- Need for custom designed database applications

Mobile Phone Banking



Access your bank account anytime, anywhere.

The new M-Banking service from Co-operative Bank lets you access your bank account from anywhere, anytime, wherever you are. You can now:

- ✓ Get automatic alerts when your salary is in your account
- ✓ Request a mini-statement
- ✓ Check your account balance
- ✓ Pay your utility bills
- ✓ Top up your airtime

All at the touch of a button!

Talk to our personal bankers in any of our branches and get connected to next generation banking and you'll never have to queue to check your account or pay your bills again.

GO BANK CO-OPERATIVE
BANK OF KENYA



banking at your finger tips

MicroSave

Market-led solutions for financial services

The Customer Value Proposition

Features, Accessibility, Affordability, Usability

Features: Key Product Features

Back to Cash	Ability to obtain cash using the solution
Value Added Services	Airtime top up, bill payments
Accessibility	Widespread access points and transaction methods
Money Transfer	P2P money transfer is often a big expense
Inexpensive	Cash is perceived to be free

Features: Access Points

Post Offices	Countrywide, but IT aware and connected?
Petrol Stations	Countrywide, but in the right location and accessed by poor?
Merchants	Often targeted at high end customers?
ATMs	No assistance and generally urban locations
Cellphones	Countrywide (?) but link into cash?

Affordability: From the Client Perspective

- Cash is perceived to be free, so any solution needs to be priced appropriately
- Fees should be sensitive to a large number of low value transactions
- Many existing solutions, charge on a value based model... is there a need for a different pricing model for the poor.
- For certain types of transactions, for example, money transfer it may be possible to charge a premium

Features: Ease of Use / Transparency

Uniformity of service	Services are provided in a uniform manner
Assistance at service points	Either through merchants or assisted bank service points
Statement Printing	Shows recent history on the electronic account
Balance Enquiry	Printed or on screen balance
Transaction Receipt	Receipt printing by ATM or POS device

The Business Case

Functionality, Partnerships and Models

Determining Your Functionality

Some of the steps

- Understand customer needs
- Build a Customer Value Proposition considering what is already available in the marketplace
- Consider the strategic partnerships required to deliver that solution
- Consider how your solution can build the volume to provide returns
- What implications does this have for distribution strategy
- Consider the costs in time and money of developing a particular functionality... avoiding scope creep
- Develop a financial model to test assumptions
- Consider impact on your other products

Some of the Partners

Application Service Provider	Provides solution
Banks	Provide legal home for deposits, enable clearing
Communications Provider	To provide secure real time communication
Transaction Processor	Often called a Switch
Regulators / Legislators	Payments system and interpretation – deposit taker
Card Issuers	Issuers of the card, and EMV

Partnerships, Control and Risk

- It is important to see and plan around issues of control. If you are a regulated bank you may have substantial control if you are an MFI, you will have much less.
- Consider your partnership agreements very carefully as they introduce Counterparty Risk.

The Business Model

- It is often critical to build volume... to do this you may need to build several channels
 - Person to Person... money transfer
 - Business to Business... Airtime resellers, distributors
 - Business to Customer... Airtime
 - Government for pensions payments and salaries
- All on a different transactions based pricing model

The Innovators

ATMs: Prodem and ICICI

- Prodem
 - Lower cost
 - Manufactured locally to Prodem specifications
 - Biometric
 - Speaks three languages to assist customers to use the machine

(See Handout)
- ICICI
 - Very low cost
 - Manufactured locally
 - Designed to
 - count money note by note
 - for cash to be removed on a daily basis
 - operate only in observed, secure environments
 - Therefore no need for expensive mechanisms, or safes.

Mobile Phones: Wizzit

- A new initiative in South Africa... one of four recently launched mobile phone banking initiatives in the country!
 - Menu driven
 - Uses low technology solution, compatible with the oldest and cheapest phones
 - Teams of sales agents on a commission provide a large number of people who can train customers on how to use the solution
 - Tipping point in usage, after three uses a month it can become a favoured payment mechanism.

Banking Correspondents

- Four Brazilian banks are using Banking Correspondents, who have a computer and a modem to sell services. Using this model they have reached 8 million Brazilians compared to estimates of the microfinance industry of 300,000.

Banking Correspondents - Brazil



Source CGAP Draft Study

Success Factors

Success Factors

- Commitment and vision
- Strong banking system, or decision to outsource
- Progressive introduction of features
- An attractive Customer Value Proposition
- A strong business case
- Supportive retail, communications banking and regulatory environments
- Lessons learned from earlier e-banking initiatives
- Ability to share infrastructure costs
- Financial education, assisting clients to use the solution.
An important element is building trust

Electronic Banking for the Poor:

What Lessons can be learnt by
Rural Finance Institutions
and Donors?

Rural Outreach

Rural Outreach Challenges

- High costs of e-banking infrastructure and low volume of transactions, leading to limited access points and low value of transactions
- Limited power and communications networks
- In many countries, especially in Africa many rural transactions are still not monetised
- Lower levels of education, literacy and technology awareness
- Higher costs of maintaining and serving solution... for example cashing up ATMs.

So Are Mobile Phones The Answer to Rural Outreach?

Mobile Phones – The Potential

- The biggest attraction of mobile phone banking to financial institutions is vast available network of mobile phones.
- Mobile phones now outnumber fixed lines in Africa and networks are expanding fast.
- Handset manufacturers are able to offer relatively cheap handsets even those offering sms only services.
- However, the challenges in operating a mobile phone banking are significant.

Mobile Phone Banking Challenges



- *Phone Ownership*: Many poorer people don't own a phone, but can borrow one from a neighbor or family member.
- *Loss of SIM*: This often occurs whilst "SIM swapping".
- *Charging the Phone*: Costs in Kenya to charge a mobile phone range from Ksh.20 upwards, and may involve a trip into the local town.
- *Old phones*: Not all phones have the same functions and capabilities with many of the poorest having access to
- *Liquidity of Agents*: Where phones are used to access cash the agent has to have money available

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Mobile Phone Banking Challenges

- *Availability of Network*: In more remote locations it is difficult to obtain a signal on a mobile phone
- *Receipt*: Mobile phones can not produce a printed audit trail for transactions
- *Guaranteed Transaction*: SMS based transactions are not guaranteed to be made
- *Usability*: The solution must be designed to be as simple and foolproof as practical.

Mobile Phone Transactions Issues

- *Convenience for customer*: The requirement to maintain cash on the card, which cannot be used elsewhere is unpopular
- *Loss of balance*: Depending on whether the solution is a “e-purse” or an “e-wallet”
- *Additional transactions*: To maintain cash on the card requires additional transactions for which there are usually fees
- *Completing purchases*: Customers often do not have sufficient balance on the card to complete a particular purchase, though they have money in their account

Mobile Branches



Equity's Mobile Branch

- Travels one day per week to remote locations
- Currently more than 50 locations are being served
- A unit typically operates from a branch with a timetable that follows local market days in local trading centers.
- It makes a small profit based on charging a slightly transaction fee for providing a remote service...
- Can use V-SAT for secure communications
- *See MicroSave study on Equity's mobile branch*

The HP – RTS Solution

- A Point of Sale device based solution working with Uganda Microfinance Union.
 - Creating merchant based banking services
 - Bringing services to more remote areas
- However, there are many challenges
 - Developing sufficient volume of transactions per merchant
 - Incentives for the merchant
 - Maintaining relationships.
 - Strength of the back office systems

E-Banking and Microfinance

Will It Happen? If So What Will Happen?

E-Banking and Microfinance?

- Not will it happen, but when and how?
 - In some markets it already is happening, the impact is more gradual than some predicted but we could be reaching a take off point...
 - Significant investments are being made
 - Replacement of passbooks with cards
 - ATMs are rolling out
 - Common Switches are being developed
 - Mobile Phone companies are investing
 - Microfinance institutions are becoming regulated

E-Banking – Implications for MFIs?

- Increased competition, new actors in providing financial services
- Banks moving down-market and into new markets
- A new banking divide – in more rural areas and difficult to reach customers (but remember this exists already... it is the definition of the divide that is changing)
- Significant changes in microfinance practices

Donors and E-Banking

A Role for Donors?

- Investing in new initiatives?
- Documenting and dissemination of lessons?
- Comparative policy and legislative environment?
- Extending infrastructure to rural areas?
 - Post-banks, Cooperatives?
- Public / Private partnership: Challenge funds?
- Financial Education?
- Studying impacts on MFIs

Some Guidelines

- This is a complex subject, so guidance is unlikely to be found in one place – so consult widely before making decisions.
- Form a network of key donor contacts in e-banking to share initiatives.... A role for CGAP.
- CGAP Donor Brief 23, *MicroSave* papers.
- Use expertise, its expensive, but otherwise you will risk relearning lessons that have been learned before... in Africa this often comes from South Africa.
- Use subsidy selectively for leverage and risk coverage.