M-banking the unbanked

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Who are unbanked?

- Poor People
- Informal Businesses

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Poor People

- Nationally representative household surveys in 17 African countries 2007/8
  - 45% of 16+ had a mobile phone
  - 27% of 16+ had a bank account
  - Of those without bank account
    - 54% because they do not have regular income
    - 39% earn to little
    - 6.5% believed they did not qualify to open a bank account
    - 4% did not know how to open a bank account
Informal businesses

- It is risky for banks to serve informal businesses
  - The ability to repay loans is unknown to banks due to lack transaction history
  - Lack of collateral
  - Lack of bookkeeping skills
  - No inventory systems
  - Lack of business plans
2005/6 SMEs from 15 African countries: Out of 10 Transactions, how many are in cash?

<table>
<thead>
<tr>
<th></th>
<th>Informal</th>
<th>Semi-formal</th>
<th>Formal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Supplier</td>
<td>9.5</td>
<td>8.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Local Customers</td>
<td>9.5</td>
<td>8.6</td>
<td>7.2</td>
</tr>
</tbody>
</table>
Public Phones
Sandton / Kampala
Petrol Station in Benin
Zambia
Why should everyone be banked?
Economic Growth / Jobs

- Financial Intermediation (core economic function)
- Private sector needs capital to expand
- Saving is good for the economy:
  - lower inflation
  - cheap capital for banks
Average number of individuals deriving a livelihood from a business (employees & owners)

SME surveys in 2005/6
Entrepreneurship Drivers

Pull Factors

- In Europe people get pulled into get entrepreneurship: self determination, profit, status

Push Factors

- In Africa people get pushed into entrepreneurship: not enough formal jobs available
Access to capital remains biggest obstacle for informal businesses

- mostly through family and friends
- Microfinance only works on peer pressure (e.g., village banks, not suitable in urban areas)
- Informal money lenders are very expensive
- Even formal banking for the informal sector is very expensive: Bank in Kenya provides daily loans to market women at **20% a day** e.g.
Domestic and International money transfer

- 17 African countries
- 8.4% or 7.25 million households send money monthly to another household
- 20.7% of that through bank accounts
- 4.6% send abroad

**Sub-Saharan Africa**

- Inward remittances: 10,917
- Outward remittances: 4,214
- Aid (ODA): 2,889

Worldbank and OECD data 2008

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Demand for Financial Services

- Mobile based transfer mechanisms meet demand partly for
  - Sending money to family in another town or abroad
  - Paying for goods and services over distance (ordering goods from another town, paying bills)
  - Demand met but still expensive

- Unmet demand includes:
  - Loans for unforeseen or special expenditure (funerals, weddings, school fees, sickness, car repair)
  - Loans to start a business
Loans - Banks require:

- Transaction history
  - know their customers
  - predicting divorces 3 months in advance with 95% accuracy
- Salary
- Collateral
- Business plan
- Audited financial statement

Poor people and informal businesses have neither
Current M-Banking Solutions

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Current M-Banking Solutions

No bank account
Mobile based transfers (MPESA etc)
- Mainly for “larger” transfers (not for buying milk or bread)
- Transfers not full banking

Bank Account
Mobile Banking, NFC
- Additional channel to existing bank account
- Useful to the currently banked, unlikely to draw in the unbanked into the financial system
- Inconvenience, cost, ID requirements
# MPESA vs Western Union
## Cost of non-bank domestic transactions

<table>
<thead>
<tr>
<th>Amount in Khs</th>
<th>M-Pesa to Non M-Pesa user</th>
<th>Domestic Transfer Western Union</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Send money to a non M-PESA user</td>
<td>Withdraw cash by a non M-Pesa user</td>
</tr>
<tr>
<td>100</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>500</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>1,000</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>5,000</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>10,000</td>
<td>175</td>
<td>0</td>
</tr>
<tr>
<td>20,000</td>
<td>350</td>
<td>0</td>
</tr>
<tr>
<td>35,000</td>
<td>400</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: MPESA and Western Union 2008
## e-Money compared

Japan: smaller market and average transactions but more transaction and users

<table>
<thead>
<tr>
<th></th>
<th>Value of m-money transactions (Billion USD)</th>
<th>m-money customer in million</th>
<th>transactions in million</th>
<th>Average value of transaction USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>2.9</td>
<td>18.5</td>
<td>267.84</td>
<td>9</td>
</tr>
<tr>
<td>Kenya</td>
<td>4.26</td>
<td>9.48</td>
<td>177.69</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Intelecon 2011
Obstacles to serve informal sector and the poor profitably

- Cost asymmetries:
  - Cash expensive for banks but cheap for informal businesses
  - Manpower is expensive for banks but micro-credit is very manpower intensive

- Information asymmetries:
  - Lack of transaction history
  - Inability to demonstrate profitability of cash business
Possible Solution?
Mobile wallets at zero transaction cost
African banks make their money to a large extend from fees

Deposit fees limit the money banks can raise cheaply (savings are cheaper than central bank)

Instead banks should be making money from financial intermediation, channeling savings into productive investments

Scrapping bank fees for deposits, withdrawals and transfers would provide banks with:

- cheaper access to capital
- higher transaction volumes
- better tools to assess the creditworthiness of their customers
Mobile Wallet & zero transaction cost

- Alternative transaction mechanism to expensive formal banking system
- Transacting electronically as convenient as cash... and free
- Telcos can provide subscribers with multiple accounts associated to their mobile phone
  - one for airtime
  - one for money value
  - one for savings...paying interest
- At point of transfer from money to airtime wallet, VAT would be applicable and a reverse transfer would not be possible eg
Mobile operators love mobile wallets

- Customer retention
- Prepaid customers can load airtime anytime anywhere
- No loss in the distribution channel (currently between 10-25%)
- No need for scratch cards
Banks should love mobile wallets

- Replacing cash transaction with electronic ones would build up transaction histories
- Extend overdrafts automatically (without bankers involvement)
  - Overcoming information asymmetry (lack of knowledge of customers)
  - Overcoming cost asymmetries
- Micro credit, micro venture capital, micro insurance
Cash - Wallet Relationship

**Cash Out**
- ATMs
- Cash-in businesses such as petrol stations and supermarkets love to give out cash and have the amount directly put into their bank account...earning interest directly...and reducing cash in store

**Cash In**
- Cash expensive for banks to handle
- African banks struggle to raise savings (development banks been springing up for that purpose for the last 20 years in Africa)
- Salary payment to M-wallet
Regulatory Aspects: Telecom and financial sectors are similar

- Crucial for economic and social development
- Few players (oligopolies) and need to be regulated in public interest
- In future the different sector regulators will have to work together
Who dominates this relationship: banks or mobile operators?

- **Mobile operators dominate:** open to more banks but may exclude other mobile operators.
- **Banks dominate:** open to other mobile operators but may exclude other banks.
- **Economic perspective:** Mobile payment system that allows transfers and interactions between any bank and any operator.
  - Develop industry standards for mobile money based on open access principles.
  - Regulate (similar to mobile call termination).
Conclusion

- The unbanked are unbanked for a reason. They will only consistently transact electronically if there are no transaction costs and if doing so is convenient and secure.

- Serving the unbanked profitably and sustainably requires a radically different approach. Tweaking the existing banking system will not achieve a breakthrough.

- Mobile wallets have the potential to provide an urgently needed breakthrough.
Conclusion

- Banks need to get back to basics and focus on making money through financial intermediation rather than through transaction fees.

- Convergence of two such heavily regulated industries means that challenges are unlikely to be met unless policy-makers lay the ground rules for innovation.

- Policy-makers and regulators need to safeguard that evolving systems serve the broader objectives of economic growth and development as well as protect consumer interests, while creating an environment that encourages and rewards innovation.