

MicroSave Briefing Note # 21

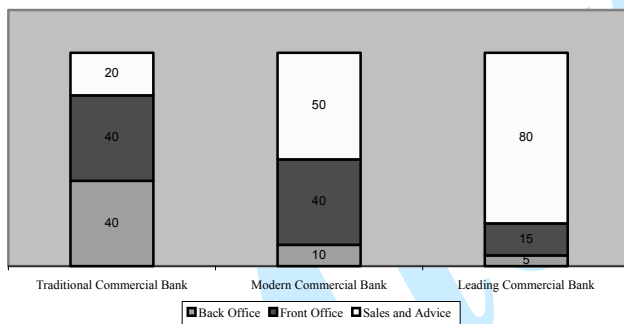
Meeting the Challenge – The Impact Of Changing Technology On MicroFinance Institutions (MFIs)

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Why Conventional Banks Have Not Set Up Shop to Cater for the Poor

Until recently, banks rarely provided banking services and products designed for the poor. It simply was not profitable to do so. Banking was a costly and labour-intensive task for all concerned. Banks needed huge branch networks filled with tellers, checking clerks, forms, and files. The back office at branch level was often as large as the front office. Customers were required to stand in long queues at inconvenient times, complete complex forms, and in the case of the poor, receive service that was not geared to customers who had limited time, or literacy. Over and above this, credit processes were devolved from methods developed for corporate banking, and relied heavily on collateral. Costs were closely related to the structure of branches. The figure below depicts how technology is changing the way branches are organised and with it, the cost structures of branch banking.

BRANCH SPACE AND TIME ALLOCATION

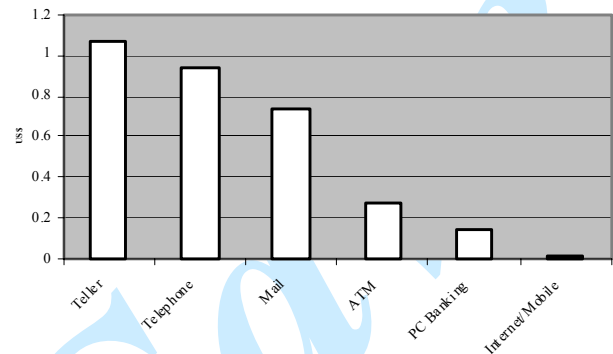


One of the only way banks could maintain profitability amid their high transaction costs, was to limit branch networks and focus on customers with relatively high balances in their accounts.

The Impact of Technology

Technology in banking is no longer the stuff of science fiction. The proceeding figure showcases the *dramatic* savings (per transaction) in space and people that technology can bring to retail banking. This can be even of the cost of transacting through different channels.

TRANSACTION COST PER DISTRIBUTION CHANNEL



More dramatically demonstrated through a comparison with costs falling dramatically, banks can now afford to consider providing banking services to people with much lower income levels.

Automated Teller Machines (ATMs) & Point of Sale (POS) Technology

ATMs revolutionised banking upon their inception 30 years ago. Their deployment was delayed for over 20 years in many African countries due to their cost, the often inadequate telecommunications (now solved by mobile phones), and electricity supply. Until a decade ago, ATMs were bulky, expensive, and difficult to maintain and replenish, requiring many thousands of transactions to achieve profitability. Nonetheless, ATMs gave their owners a huge comparative advantage, and it was often the case that the bank with the biggest ATM infrastructure maintained their position as market leader. This began to change as banks began to allow *switching* (using Bank A's ATM card on Bank B's ATM). This dramatically reduced the cost of entry for new banks. Increasingly, financial institutions have also been able to deploy POS devices in locations that often provide the same functionality as an ATM at a fraction of the (already reduced) cost.

In more and more markets, banks share ATM and POS infrastructure, allowing any participant in the switch access to a far larger network at far less cost. Securing access to the switch is an important strategic challenge for many emerging banking operations and is often the key to the low cost distribution of funds to low income customers.

¹This briefing note has been produced in collaboration with Genesis and Ben & Duminy and Associates – consulting firms that specialise in assisting banks and MFIs in Africa to meet the strategic challenge of technology. For further information please contact: Richard Ketley on rpk@genesis-analytics.com

Plastic Cards: A Technology Impossible to Ignore

Even in Africa, commercial banks in many countries have migrated almost all of their customers to electronic channels, using debit cards (where cash is debited directly from the account and the transaction does not execute unless sufficient funds are available) at ATMs and POS devices. Card technology has further reduced costs, achieved high levels of processing efficiency, and radically altered bank business models. Furthermore the cost of implementing a plastic strategy has fallen dramatically in recent times. Once the initial fixed cost (which are also falling) has been covered, the ongoing costs are comparatively small. Increasingly, South African banks are relying on debit cards to deliver banking services to the poor. While cash transactions *do* sometimes still take place in the banking hall, banks have a clear agenda to phase these out.

Mobile Phone Technology: The Answer for Africa?

The most exciting new technological development in banking is mobile banking – using a mobile phone to execute transactions. This is rather like internet banking, but on a small screen (it is to be distinguished from telephone banking in which individuals speak to a call centre).

The potential of mobile phone based banking in developing countries dwarfs that of the internet. There are now over a billion mobile phones worldwide (and the number grows daily), as opposed to less than 400 million internet users. In a country like Uganda, the number of mobile phone users exceeds internet users *by a factor of ten*. Mobile phone ownership reflects an entirely different socio-economic profile. A mobile device is always with the user, unlike a desk based internet access point. In South Africa, banks process 550 *million* transactions for mobile "top-up" (recharge) annually! These transactions are a convincing testimony to the scope and potential of mobile banking.

Mobile phone based solutions have great potential in Africa:

1. African markets are *not* saturated with alternative payment channels (ATMs, POS and branches).
2. Cell phone ownership is high, while internet access is comparatively low. Low income individuals often prioritise mobile phone payments (more often than not on a prepaid basis) above some basic expenditures.
3. Poor physical infrastructure often makes it difficult to reach a bank.
4. Cheque usage is very important in economies

with large networks of small traders each of which needs to pay suppliers and is subject to a high degree of fraud (particularly amongst small and medium enterprises), long clearing times and heavy investment costs for the banks. Cheque usage can be replaced by mobile payments.

Mobile payment solutions are already operating in Zambia and have been very successful in the Philippines. Widespread use of mobile payments would transform the very *definition* of a bank. Using mobile technology, Person A could give Person B cash, Person B would debit their own account and credit A's account, using his or her mobile phone. This simple transaction would eliminate the need of Person A to physically make a trip to the bank or ATM to receive or deposit cash.

Mobile banking could eradicate the security concerns previously associated with informal saving mechanisms. For instance, if an MFI sent a representative to collect deposits at a marketplace, depositors would feel more comfortable handing over their deposit (or loan repayment) if they received a text message on their cell phone confirming that the bank account in question had been instantly credited. (Market trader person A, hands cash to deposit collector B, B receives cash, debits B's account and credits A's account on mobile handset).

Making it Happen

This briefing note does not delve into the technical complexities of setting up the infrastructure or alliances necessary to benefit from a mobile payments system or plastic strategy. But the message is clear - technology is changing the entire banking landscape. The poor are more and more becoming a viable target market for conventional banks. MFIs need to understand this challenge or risk becoming irrelevant.

MFIs cannot afford not to develop an appropriate technology integration strategy. This strategy should:

1. Understand the challenge and opportunities in the emerging switching environment in their economy and the opportunity for mobile payments.
2. Explore the advantages and disadvantages of developing alliances and partners with the formal banking sector so as to remain competitive in the evolving technological environment.
3. Ensure that technological solutions remain simple, non-alienating and aligned with their customers' needs.