

# Crossfire: Will electronic banking reach the very poor?

SHIVENDRA SHARMA and DAVID CRACKNELL

*In our regular debate between two experts, Crossfire invites Shivendra Sharma and David Cracknell to argue the case surrounding: 'The potential of electronic banking for reaching the very poor is overblown'*

*Dear David,*

The internet, it was thought, would change the way the world does business. It was seen as a panacea that would spell the doom for intermediaries and middlemen thereby eliminating non-value adding links in the chain and reducing the cost for the final customer, while at the same time increasing the price obtained by the primary producers for their toil. Now, over 12 years after the internet was introduced in the public domain none of this has really happened. While corporations have reaped the benefits by re-engineering processes and infusing IT (and selling more), the customers and producers have not really gained as was forecasted. An altogether new class of information savvy intermediaries and middlemen has cropped up and are thriving on maintaining the information

asymmetries in place. Further, the digital divide (as it is referred to) is a pure product of IT progress. In terms of economic impact, the internet has resulted in a further widening of the gap between the rich and the poor. Only those with a sound education, resources and/or exposure to the technology train have found opportunities to improve their lives. While this is no mean feat in itself, it is far from what could be achieved or was envisaged to be achieved. In any case, this target group is in no way related to microfinance.

Talking of microfinance, it too has drifted far from its original objective. Having its humble beginnings in development initiatives seeking to include the 'poorest of the poor' in the financial markets, it has arrived today at the point where the enthusiasts are continuing to promote and push it as a solution, even though it has become crystal clear that it is not suitable for the very poor and the poorest but only for the marginally poor and those hovering around the poverty lines. Most proponents would

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Mobile phone banking will not reach the very poor or the poorest

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state the same when asked, but this does not prevent the enthusiasts from soliciting investors and confusing the general public by claiming to work with a zillion of the poorest women in developing countries. In a few years the combined total number of microfinance clients would surpass the total poorest population of the world even though the poorest would only be a minority number of them. We would nevertheless claim another victory for microfinance. We earlier had unsustainable institutions that were doing microfinance and soon we will have sustainable institutions not doing microfinance.

As the competition in the traditional markets increases, we the technology entrepreneurs are seeking out newer markets from where the next stream of profits can flow. Since the proverbial 'bottom of the pyramid' continues to be the flavour of the season, the poor are once again in the limelight and this time they face the combined might of the IT and microfinance enthusiasts rolled into one. True that the penetration of cellular phones is continuing to grow at a rapid pace but this in itself does not provide a sufficient condition for the expansion of mobile banking (m-banking) as far as microfinance is concerned. The telcos would surely benefit from using the poor as lab rats to infuse their corporate social responsibility funds into developing technolo-

gies that enable financial services reach the very poor. They will end up, as has been demonstrated by the success of Vodafone M-Pesa platform in Kenya (described in Simon Batchelor's article in this edition of *EDM*), developing a profitable service for other client groups but not the very poor or the poorest. The M-Pesa payment platform in Kenya is a success if the objective was 'person-to-person' funds transfer but not at all so in terms of microfinance. Ironically the platform has also made it much easier for money lenders to expand their businesses. So who gains: first the telco, then the moneylenders and those that have the funds to transfer to others and finally some poor people who can now easily access a loan from a money lender. What the dot com boom and bust taught us about the learning curve associated with any new technology, m-banking is set to teach us once again and this time through microfinance: the poor are with us on the same boat.

Another thing that I keep pondering is which developed country has already envisaged a framework and regulatory structure to keep the telcos in check once airtime is allowed to be a surrogate or even new currency? I also wonder if the reason that this has not happened yet has something to do with the money multiplier moving to another higher orbit. Are developing countries therefore to be the labs

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Which developed country has envisaged a regulatory structure to keep the telcos in check once airtime is allowed to be a surrogate currency?

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in which to experiment such a system, taking refuge in the technology market advantage that they seem to be enjoying? Whatever happened to the spirit of entrepreneurship that we all seem to have in abundance?

*Yours,  
Shivendra,  
Plural Team*

*Dear Shivendra,*

True, the full potential for the internet is yet to be realized, but why use the internet as a comparator to measure the potential for electronic banking? A far better comparison is the growth in the Indian market, of the Public Communications Office (PCO) as a mass market service delivery system. The PCO is a telephone and a telephone billing system that has enabled millions to establish businesses selling communication services at village level. There are currently 5.6 million PCOs in India, one PCO for every 220 people, this revolution happened extremely quickly. Communication is already reaching the masses, even those without a mobile phone. If this can happen why not some form of appropriately designed banking services?

When I wrote a paper in 2004 on electronic banking ('Electronic banking for the poor – panacea, potential and pitfalls', published in *Small Enterprise Development* Volume 15 Number 4) I was struck by the lack of progress in e-banking, by failed

initiatives, and the hype that characterized the young e-banking industry. I felt that elementary mistakes were being made in defining the customer value proposition, people were being sold unattractive products; business cases were developed that failed to work for one or more partner; and the retail and regulatory environments were underdeveloped and in many cases highly restrictive.

So what has changed? Among continuing failures, there are more success stories, more realistic expectations, more carefully designed services and clearer business cases. There is a gradual transition in financial sectors to include transaction-based services, and a growing realization among retail banking giants that there is economic potential within low-income customers. The fastest growing financial institution in Kenya is focused on the microfinance market, albeit not the poorest people. Equity Bank now reaches 1.8 million customers and reports 100 per cent growth in most indicators year after year. Equity has the largest network of ATMs in the country and serves more than 65 per cent of its withdrawal transactions electronically. To reach poorer people, especially in more rural areas, Equity Bank plans to lower transactions costs further through a mass roll out of point of sale (POS) devices.

Take another example, the fastest growing financial service in Kenya is the M-Pesa mobile

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banking product launched by Vodafone/Safaricom. Eight months after launch there are one million customers, the average transaction is less than US\$75 and more than \$500,000 is transferred daily; these volumes continue to grow. OK, so you may say this is not benefiting the poorest, but this is difficult to determine, precisely because M-Pesa is built around money transfer as a financial service! Often adults in Nairobi make small monthly maintenance payments to retired parents who live up-country. Take up is significant because, compared to traditional mechanisms for transferring e-money, M-Pesa is not only significantly cheaper but much safer too.

Based around earlier MicroSave research, transaction costs have reduced from about 10 per cent of the average transaction size using traditional mechanisms to less than 2 per cent using m-banking. Reducing transaction costs is a critical step towards reaching the very poor and appropriate use of technology can certainly do that.

You talk of the impact of e-banking on microfinance and on disintermediation, it is important to recognize that financial systems disintermediation (meaning the involvement of new non-bank actors in the provision of financial services), such as the case of m-banking or Walmart in Mexico, is a worldwide phenomenon. To protest against this is to fail to recognize a worldwide trend

that is rapidly increasing access to financial services. Increasingly we are also talking of financial inclusion, and of a financial systems approach rather than an institutionally specific one. Successful microfinance institutions recognize this new reality and will adapt their delivery channels to benefit from new technology. For example, Jamii Bora serves its 175,000 customers through magnetic stripe cards, providing loans to beggars and street children who borrow on average only \$75. Certainly there is already clear evidence of the potential of e-banking, even if it is yet to be fully realized.

*Yours,  
David*

*Dear David,*

Most new technologies, whether telecommunications, internet or e-commerce, have a potential to address core developmental targets such as that of poverty but to what extent they do so or have done so in the past depends on how the technology itself is developed and introduced, and finally on what products/services are developed on it to satisfy customer needs. We are not arguing that m-banking does not have such a potential but only that this potential is blown out of proportion.

New technologies have an extremely high development cost and are first introduced to the customers at the 'top of the pyramid' since the cost of derived products and services are

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prohibitively high. Once substantial development costs are recovered the pricing could be made more inclusive. We see this all the time with new technologies as they are introduced into the markets. We see the same in the PCO example in India; the telephone was invented in 1876 (first telephone exchange in India (1881) and first payphone was introduced in 1889). The spread of the PCOs in India was a success as the technology that was used was not new. It was in 1982 that the PCO project kicked off! The technology had already been perfected, its development costs were already absorbed and hence the technology was ready for a mass deployment and suited everyone in the pricing. Over that the overriding principle on which the PCO project was based was access and not teledensity.

The other important factor in the deployment and spread of a technology is the time it takes for the market to learn to use the technology. It is in this context that the example of the internet has important lessons for us. Regardless how fast the pace of technology deployment is, the users of the technology will take time to be comfortable with it. Any new technology assumes that all potential customers or the market have access to the last one. Hence only those with access to a phone line could get onto the internet in the early days. The huge investments poured into developing e-commerce in those days did not

bring justifiable profits. The profits though are beginning to come now and will eventually come but will have no reference to the initial investments lost other than this lesson.

I was asked in a previous assignment (2002) to understand and introduce the concept of a computerized management information system (MIS) to small rural MFIs. I understood after visiting over 50 institutions in India and Nepal that it was the conception of extremely high costs of procurement and maintenance of computers coupled with the fear that due to their lack of knowledge they might cause damage to them that was preventing the MFIs from considering an MIS, even though they saw the productivity gain from it. We still had institutions to deal with. If it were individual customers, as would be the case with m-banking, we can take a wild guess how long it would take for even a critical mass of them to use the technology. Accessibility for a minority customer segment can only be an additional feature of a new technology and not the reason for the development of the technology.

Kenya has a banking penetration rate of 25–30 per cent with a population of approximately 35 million. India has a banking penetration rate of 60 per cent with a population of over 1 billion. Factor in the national growth rates and the Equity Bank in Kenya can be likened to the ICICI Bank in India! But

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How often would we want the poor to upgrade their handsets because the technology has been upgraded?

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both of these are nevertheless banks with only some degree of exposure to microfinance, and they cannot be seen as best practice examples of what an MFI should be. All the technology that they are using is first for operational reasons and only later for creating access for the poor. The ATM (first modern installation, 1968) as a technology is not new in any case and we do believe that it is going to spread gradually to include the poor in its ambit as the cost of installing secure ATMs and high-speed internet access become more rational.

Finally with the increasing speed with which new technologies are developed today, we have also to consider the cost of migration from one new technology to another. Wi-Max, 3G (which has had a less than desirable debut in developed markets) and near-field communication (NFC) are three new technologies on the edge. Each of them would require a reinvestment from all players and customers. How often would we want the poor to upgrade their handsets because the technology has been upgraded? NFC, which is the most promising of these, is at best the marriage between cellular communications (hi-tech) and radio-frequency identification (RFID) (low-old-tech), which started with the experimentation of putting a smart card module in a cellular handset and evolved from there.

Swayam Krishi Sangam (SKS) one of the best known Indian MFIs, experimented with smart cards in 2001–2002 and finally gave up on the technology because, even though it had the potential of bringing some major efficiency gains, it turned out to be too expensive for use in the microfinance scenario. Alternatively, Bandhan (more than 0.5 million clients) in India and ASA (5 million clients) in Bangladesh are examples of institutions that have grown very fast and maintained an immaculate repayment record with a well-crafted manual MIS.

To end with a 'microfinance-savvy' quote, let's give credit only where it's due!

*Yours,  
Shivendra  
Plural Team*

*Dear Shivendra,*

Despite your assertion that 60 per cent of India is banked, the source, a recent study from the Reserve Bank of India, admits this is based on the number of bank accounts in India and the simplifying assumption that banked individuals have only one account; moreover, many existing accounts may be dormant. So even in India, with its massive branch infrastructure, itself partly the creation of decades of regulatory policy, banking the unbanked remains a major challenge. How do we meet this challenge? By becoming more responsive to custom-

ers! E-banking is just one way to be more responsive.

The East African market has become increasingly responsive to its customers; this focus is driving change, promoting growth and increasing access. Technology though expensive is one key. When Equity introduced its Finacle system in 2005 it had committed KSh.1 billion on IT spending (\$14m), when its balance sheet was only KSh.5 billion (\$71m). At the time, many in the local banking industry thought Equity crazy, now the local banking sector is racing to catch up!

While capital costs are high, marginal costs, key to reaching low-income customers, are low. In a recent Nairobi conference it was noted that an ATM transaction can cost as little as KSh2 (three US cents). There are significant returns to scale, particularly in markets, especially those in Africa, where labour is relatively expensive. In Bangladesh or India the cost dynamics are different and manual systems have reached millions of customers. However, even in India the benefits of technology are forcing change, Bandhan, an institution you refer to in support of manual operations is in the process of computerization!

Secondly, development and hardware costs are reducing. Unlike several years ago e-banking systems are available 'off the shelf'. Moreover, low-cost initiatives are being undertaken, or are in discussion, such as ICICI developing low-cost ATMs

and the development of POS devices at a sub \$250 pricing point. With lower costs, increasingly the challenge will be to get the customer formula right. Once this is accomplished the potential for rapid scaling up has already been demonstrated by M-Pesa and India's PCOs.

A third factor driving down costs is that data are borderless; e-banking in all its forms can use systems hosted in other countries, or use application service providers to piggy-back on costs already incurred. This is already happening in traditional banking and in m-banking.

What is required to further reduce costs are ubiquity and inter-operability. Building solutions around the mobile phone and the magstripe card allows for solutions that build around both existing infrastructure and existing customer knowledge. Many poor people know how to use a phone, know how to send an SMS. Testing by *MicroSave* showed that low-income users who were existing phone users had little problem adopting M-Pesa, a fact I believe to be borne out by the subsequent rate of adoption.

Many people, albeit often not so poor, know how to use an ATM or POS device. There are greater adoption challenges in lower income communities, but again not insurmountable. In South Africa, for example, millions already use the Mzanzee Account, a low-cost bank account that operates entirely through ATMs. Literacy is

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Technology could revolutionize the distribution of food aid

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important, but assisted solutions can be developed and over time build knowledge and trust, a strategy that brought three million users to Standard Bank's E-Plan in South Africa, or Prodem's ATMs that provide vocal prompts in local languages. Through scale, those in the community learn to trust and use technological options and can on-train others informally. Moreover technology is inherently attractive, especially among youth, which comprise the majority of the poor. In a random sample in a large-scale survey in Uganda in 2003, more than 70 per cent of respondents wanted a mag-stripe card! In India, millions could be reached simply by moving the Post Office from passbook to card.

There is no one solution for reaching poor people with financial services; however, your referring to Equity Bank as not one model for microfinance was unfortunate given that it has been voted best microfinance bank in Africa. It also won a prestigious Vision Award as one of two worldwide models for microfinance, sharing the stage with Nobel Laureate Professor Mohamed Yunus of Grameen Bank. Its absolute annual rate of expansion is larger than that of most other Kenyan MFIs combined. Equity is also innovating to reach poorer communities through POS devices. Then again, as I referred to before, even poorer people are being reached by Jamii Bora through biometric enabled POS devices.

Equity does not explicitly target the very poor. So what can drive benefits for the very poor? The issue of social payments. In South Africa for several years pensions have been paid through a mobile ATM service. In Kenya POS devices and mobile phone banking are being tested for operation in the sparsely populated North Eastern Province, where only three or four banks have a single branch. Technology could revolutionize the distribution of food aid, through putting real money to purchase food in the hands of the most vulnerable.

While there are plenty of opportunities, many challenges persist. To benefit from the full potential of the e-banking revolution to come, poor people need access to savings accounts. Simply replicating loan repayments is unlikely to provide the value proposition that appeals to customers; nor to build transaction volume to drive income and efficiencies for providers. Many markets, such as India, continue to grapple with this challenge. Regulators and legislators, therefore, are key for moving forward by providing an environment that will support future change. CGAP explicitly recognized this in choosing to conduct a seven country e-banking regulatory study.

Sure, we do have a long way to go to reach the full potential of electronic banking for the poor, but nevertheless the potential exists.

*Yours, David*