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USING TECHNOLOGY TO BUILD INCLUSIVE FINANCIAL SYSTEMS

Providing financial services to poor people is costly, in part, because they have small amounts of money, often live in sparsely populated areas, and rarely have documented credit histories. During the past few decades, specialized microfinance institutions¹ (MFIs) have begun to solve the latter problem by developing techniques that permit safe lending in the absence of borrowers' credit histories. Still, MFIs must charge relatively high interest rates to cover the administrative costs of handling small transactions for dispersed populations.² MFIs with operating costs of 12–15 percent of assets are considered efficient, while the similar ratio for banks rarely exceeds 5 percent.³

Despite significant inroads in microfinance in recent years, such as through widespread wholesale lending to MFIs, most commercial banks still view microfinance as unprofitable.⁴ Unlike MFIs, many commercial banks cannot compensate for high costs by charging high interest rates. Banks in many developing countries are legally required to limit interest rates on loans to low-income and rural borrowers, particularly when they use government funds. In India, most commercial banks cannot charge more than their prime lending rate (roughly 11%) for loans below Rs. 200,000 (US\$ 4,500). Public-sector banks are particularly sensitive to the political implications of charging poor borrowers relatively high interest rates.

Public agricultural, development, and savings banks do serve poor clients in many developing countries,⁵ but their objectives are largely social rather than commercial. Private and public banks devote resources and attention to a smaller set of wealthier retail and corporate customers, while a majority of people remain without access to formal financial services.⁶ Banks will not aggressively target the poor as a market until

¹ The term "microfinance institution," as used in this Focus Note, includes nongovernmental organizations (NGOs), cooperatives, banks, and licensed nonbank institutions that focus on delivering financial services to microentrepreneurs and other low-income clients, generally using new lending techniques that have been developed during the past 30 years.

² Ninety-six mature MFIs report a median ratio of financial revenue to average total assets of 27.4%, and a median ratio of operating expenses to average total assets of 15.3% (*MicroBanking Bulletin* Issue 11).

³ The median ratio of noninterest expense to total assets for the world's largest 492 banks (by assets) is 1.66%, according to Bankscope.

⁴ According to results of an informal poll of representatives from 25 financial institutions (mostly U.S. banks and credit unions) attending a session on banking the un- and underbanked, 60% of respondents cited the concern of small margins and profitability as an obstacle to serving the underbanked. Forty percent cited risk and potential fraud as obstacles, and others, the lack of proven examples. Poll conducted by Center for Financial Services Innovation at BAI's Retail Delivery Conference and Expo, Las Vegas, November 2004. www.cfsi.org.

⁵ Christen, Rosenberg, and Jayadeva, "Financial Institutions with a 'Double Bottom Line': Implications for the Future of Microfinance," CGAP 2004.

⁶ See Basu, "A Financial System for India's Poor," *Economic and Political Weekly*, September 10, 2005, for how banks in India have responded to the government's social banking mandate.



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they find ways to serve these customers profitably. This will require delivery channels that are inexpensive to set up, a wider range of financial services to poor customers, and the ability to handle transactions at low cost.

Some of the innovations commercial banks need to service poor clients may be found in information and communications technologies (ICTs). In developed countries, low-cost “direct banking” technology channels, such as Internet banking and automated teller machines (ATMs), process transactions at only one-fifth the cost of a branch teller. Banks in Brazil use point-of-sale (POS) terminals, such as bankcard readers, at retail and postal outlets to deliver bill payment, savings, credit, insurance, and money transfer products in nearly every municipality in the country. These terminals can be set up at a cost of less than 0.5 percent the cost of setting up a typical bank branch.⁷

Can banking technologies, applied innovatively in developing countries, make microfinance profitable for formal financial institutions? Will they reduce costs to such an extent that banks could profitably serve even those whom MFIs have mostly excluded to date, such as very poor and remote rural customers? Will these customers be comfortable using technology? This Focus Note addresses these questions by surveying the current use of technology to deliver financial services to poor people in developing countries:

- Are financial institutions using ICTs as a delivery channel for poor people?

Yes. In a CGAP study, 62 banks and MFIs report using ATMs, POS terminals,⁸ and mobile phones to deliver services.

- How are banks benefiting from using these technology channels?

A handful of banks are reaching new customers by using ICTs to deliver services through retail outlets. But most banks simply migrate existing customers to technology channels to reduce costs.

- Will technology channels make microfinance profitable for banks?

It is uncertain. Banks still have to build transaction volume and find ways to profitably lend in the informal sector using ATMs or POS channels.

- Are poor people gaining access to services through these technologies?

Probably yes, at least in Brazil and South Africa, but the service quality is uncertain. We do not know if poorer and remote people are benefiting.

- What lessons have emerged from early experiments with these technologies?

Innovative channels are not possible without the right policies and adequate financial sector infrastructure in place. Managing cash security and liquidity at a wide network of terminals is the main operational hurdle.

Are banks using technology to deliver financial services to poor people?

In a recent CGAP survey, 62 financial institutions in 32 countries report using technology channels to handle transactions for poor people.⁹ (These technologies, including ATMs, POS devices, and mobile phones, are described later in this Focus Note.) Nearly 75 percent of the respondents (46) were banks¹⁰ that operate in both large markets (e.g., India, Brazil, and South Africa) and small markets (e.g., Malawi, Namibia, and Guatemala). (See tables 1 and 2.)

Table 1 Technology Channels Used by Financial Institutions (62 institutions responding)

Technology Channel	Number of Institutions
ATMs	46
POS	35
Internet Banking	26
Mobile Phone Banking	10

⁷ Kumar, Parsons, and Urdapilleta, *Expanding Bank Outreach Through Retail Partnerships: Correspondent Banking in Brazil*, World Bank Discussion Paper 2006, World Bank, forthcoming.

⁸ The term “POS terminals” refers to devices connected to a telephone or other telecommunications network and placed at retail outlets for payments and disbursements. The device may read debit or credit cards or barcodes, or the device itself may be a mobile phone that can accept information transmitted by another mobile phone through short messaging service or another protocol.

⁹ See Annex I for a complete list of the financial institutions participating in this study.

¹⁰ Most MFIs are not well suited to develop technology delivery channels. They lack the strong core information systems, substantial financial and management resources, and membership in electronic payment associations required for such initiatives.

Table 2 Services Offered through Technology Channels (26 institutions responding)

Services Offered via Technology	Number of Institutions
Withdrawal	24
Bill payment	20
Money transfer	19
Deposit	15
Loan repayment	14
Balance inquiry	12
Account statement	10
Account opening	10
Loan disbursement	9
Insurance premium	8
Remittances	5
Benefit payments	5
Credit card advances	4
Checkbook request	2
Payroll payment	2
Cash back ¹¹	1

What technologies are used?

Most poor people, particularly those working in the informal economy and in rural areas, earn and spend in cash. To handle a cash transaction outside of a bank branch, banks have at least two ICT options. They may use an ATM that can accept, store, and dispense cash, or they can use a POS device placed at an outlet where cash is kept on hand.

These technologies are becoming increasingly available in developing countries because of falling hardware costs and growing support infrastructure. At one time, the poor supply of telecommunications and electricity could not support ATMs or POS devices, particularly in rural areas. Now, however, telecommunications and electricity infrastructure is more widespread and reliable. From 1999 to 2004, the number of mobile subscribers in Africa grew from 7.5 million to 76.8 million, an average annual increase of 58 percent.¹² There are more users than mobile phone owners: entrepreneurial mobile subscribers in rural South Africa receive text messages and deliver them verbally to those who are illiterate.¹³

Technology has also made advances. In cooperation with hardware manufacturers, VISA International developed a battery-powered wireless POS device suitable for rural areas. The device costs US\$ 125;¹⁴ most POS devices in developed countries cost about US\$ 700.

ATMs

The fact that most survey respondents use ATMs suggests that they target customers in urban and semi-urban areas. These locations are more likely to have reliable electricity and “always-on” telecommunications connections that most ATMs require to connect to a bank’s central server. In addition, because ATMs must regularly be manually refilled or emptied of cash, it is most cost effective to place them in densely populated areas. ICICI Bank in India is pilot testing a low-cost ATM that can withstand high temperatures and handle soiled and crumpled notes.

POS devices

POS devices typically are used to handle payments transactions. The device can be a card reader, mobile phone, personal computer (PC), barcode scanner, or any hardware that can identify customers and receive instructions for the transfer of value. Where transaction volume is expected to be high, or where wireless Internet access is available, PCs may be used, although most POS devices are card-reading terminals.

Each POS device uses a telephone line, mobile phone connection, or the Internet to send instructions for transferring value from one account to another. For example, after swiping a card through the POS device, the merchant presses a button on the terminal authorizing payment from the customer’s line of credit (credit card) or funds available in the customer’s current account (debit card). If the POS device is a mobile phone, the customer uses her mobile phone to send a text message authorizing payment from her bank account or from her account with the mobile phone company to the merchant’s phone.

¹¹ Cash-back transactions take place when a customer makes a purchase at a retailer using a debit card and requests a limited amount of cash in addition to the item purchased. Cash back is different from a withdrawal because it takes place only during a purchase.

¹² LaFraniere, “For Africa, a godsend in cellphones,” *The New York Times*, August 25, 2005.

¹³ Vodafone, “Africa: The Impact of Mobile Phones,” Vodafone Policy Paper Series, No. 2, March 2005.

¹⁴ Interview with Santanu Mukherjee, VISA International Country Director (South Asia), January 2005.

A POS device is not a banking channel on its own. A human attendant must be available to count and store cash and to use the POS device to identify the customer (such as by having the customer swipe a debit card and input a personal identification number [PIN]). The bank also relies on this person to answer customer queries, explain product features, and do other tasks. Supermarkets, drugstores, post offices, and other retail outlets are ideal locations for a POS device because they have cash on hand and have staff to operate the device.¹⁵ In return for “hosting” the POS device and offering banking services, the retail outlet expects to increase sales by attracting greater foot traffic and to earn a share of bank fees.

What financial services can a POS channel offer?

Mobile phones and other types of POS devices may be used to deliver a wide range of financial services when paired with a human attendant, for example, at a retail or postal outlet. Table 3 outlines three models banks can use to deliver these services.

In the first model, banks or payment processing companies lease POS devices to retail outlets

(or “acquire merchants”) to generate fees from processing electronic payments only, such as when a customer purchases groceries with a debit or credit card. This is how most banks around the world, and probably a majority of survey respondents, use POS devices. (Indeed, within most banks, the merchant acquiring unit and, in many cases, the division responsible for debit and credit cards has little interaction with the retail banking team.) The retail outlet usually pays the bank a percentage of the sale to process the payment. Some banks permit customers to make small withdrawals from the retail outlet’s cash till along with their purchase (known as “cash back”).

In the second model, banks offer a wider set of financial services through the POS device or mobile phone. Customers can use their bankcard and the POS device to deposit and withdraw cash, and possibly to transfer money to other account holders. Faulu, an MFI in Kenya, recently began a pilot project, called M-Pesa, that allows customers to receive

¹⁵ For simplicity, this Focus Note uses the term “retail outlet” to describe merchants, petrol stations, post offices, and other commercial operations in rural and low-income areas that can host a POS device and provide a staff person to help process the transaction.

Table 3 Using POS Devices for Banking

Strategy	Business Operations	Services Offered	Examples
Build merchant acquiring business	<ul style="list-style-type: none"> ■ Issuing bankcards ■ Placing card readers with merchants 	<ul style="list-style-type: none"> ■ Purchases ■ Cash back* 	<ul style="list-style-type: none"> ■ Corporation Bank (India) ■ AgrolInvest Bank (Tajikistan)
Deliver basic banking	<ul style="list-style-type: none"> ■ Issuing bankcards ■ Placing card readers with merchants 	<ul style="list-style-type: none"> ■ Purchases ■ Balance inquiry ■ Withdrawals/disbursals ■ Deposits/repayments ■ Account opening* ■ Money transfers* 	<ul style="list-style-type: none"> ■ CERUDEB (Uganda) ■ Lemon Bank (Brazil) ■ WIZZIT (South Africa) ■ Teba Bank (South Africa) ■ CARD (Philippines) ■ RBAP (Philippines) ■ Botswana Savings Bank (Botswana) ■ Fundacion Social (Colombia)
Expand market coverage	<ul style="list-style-type: none"> ■ Issuing bankcards ■ Placing card readers with merchants ■ Partnering with MFI “service agents” for loan appraisal and monitoring 	<ul style="list-style-type: none"> ■ Purchases ■ Balance inquiry ■ Withdrawals/disbursals ■ Deposits/repayments ■ Account opening ■ Money transfers ■ Insurance products* ■ Loan appraisals 	<ul style="list-style-type: none"> ■ Caixa Economica Federal (Brazil) ■ Banco Popular (Brazil) ■ Banco Postal (Brazil)

* Not always available.

or repay loans through a mobile phone. In partnership with Safaricom, an affiliate of Vodafone, the MFI credits loans to the borrower's mobile M-Pesa bank account; the borrower can then exchange the credit for cash at a Safaricom dealer. Similarly, the client can repay a loan by giving cash to a dealer, who sends instructions to Faulu via a mobile phone text message, to credit the customer's loan account. In this second model of delivering service through a POS channel, clients usually visit a branch to open an account or fill out applications available at the retail outlet. In some cases, a new account can be opened using the POS device itself. Customers of Banco Popular (a division of Banco do Brasil) in Brazil can open an account simply by keying their tax identification number and postal code into the terminal.

In the third model, banks use the POS channel to effectively replace a bank branch by providing nearly all the products and services, plus loans, that a bank branch would provide. However, banks are still figuring out how to deliver credit to borrowers who may not have a credit history without the services of a loan officer.

How are banks benefiting from using these technologies?

Most respondents to CGAP's survey use technology channels to automate basic transactions, reduce processing costs, and give customers added convenience. (See Table 4.) For example, of the seven respondents who answered questions about their use of POS devices, only two report offering services beyond payments and withdrawals with this technology channel.

But a few banks are probably gaining more dramatic benefits, by creating new channels with ICTs that allow them to gain new customers in areas where setting up a bank branch is too costly. Mobile phone operators, such as Vodafone's Safaricom (in Kenya), MTN (in South Africa), and Globe Telecom (in the Philippines), are also beginning to offer banking services, usually in partnership with banks or MFIs, mainly to

increase the volume of their text message traffic and reduce customer turnover. Mobile phone payments may help countries with underdeveloped payment systems leapfrog traditional paper-based ways of making payments.

Improving customer convenience

Financial institutions such as Banco Ademi in the Dominican Republic and ProCredit Bank in Kosovo typically place ATMs in or near branches, where they can process routine deposit, withdrawal, and balance inquiry transactions at a far lower cost than the cost of using a teller, freeing staff to sell products or give customers personalized attention. ATMs also save customers from having to wait in line to get to a teller.¹⁶

Corporation Bank in India uses ATMs to serve urban and semi-urban customers who live far from the bank branch or who cannot visit banks during normal business hours because they are at work. The bank offers payroll deposit services to factories, allowing workers to withdraw cash from their accounts anytime using an ATM at the factory. Most workers prefer this to carrying a lot of cash home on payday.

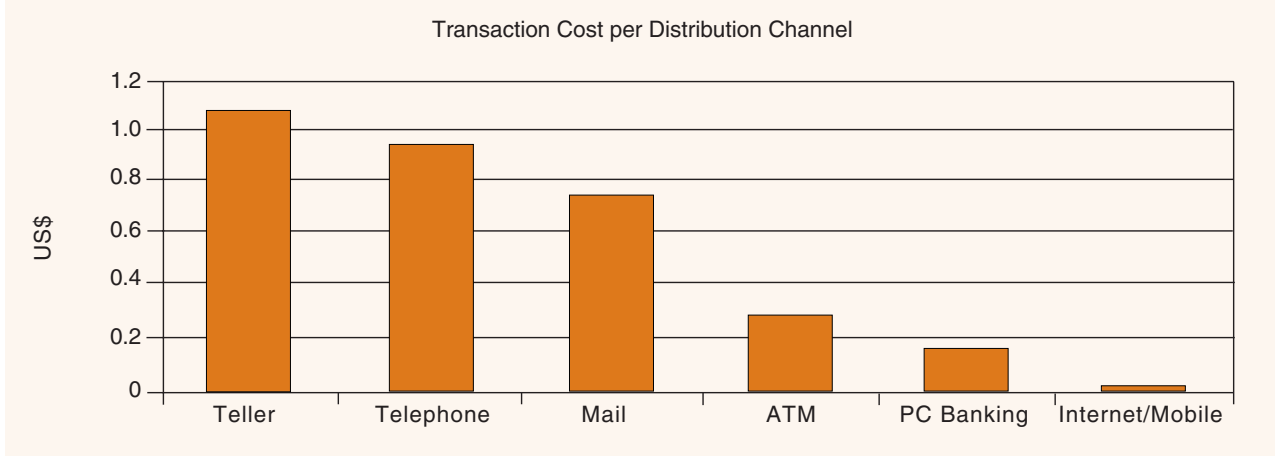
Delivering banking services through retail and postal outlets equipped with POS devices offers similar client benefits. Many poor people are unfamiliar with bank branch procedures or feel uncomfortable dealing with tellers and other branch staff. In contrast, retail and postal outlets often enjoy substantial brand value and are trusted by community members; many retail and postal outlets have a long history of operating in the community. Instead of branch banking, customers may use POS

¹⁶ See CGAP's IT Innovation Series at www.cgap.org/technology for more on ATMs.

Table 4 Reasons Financial Institutions Use Technology Channels

Reason	% of respondents
Improve customer convenience	92
Lower processing costs	76
Reach areas with no branches	69
Generate more revenues	69
Collect more savings	69

Figure 1 Channel Transaction Costs for U.S. Banks²⁰



devices located at a nearby post office or retail outlet that has longer hours than the bank branch. Uganda Microfinance Union trains merchants who host its POS devices to help poor, illiterate clients use the devices. Over time, customers learn to use the devices on their own.¹⁷

Lowering processing costs

Bank branches are expensive because they require considerable investment in staffing, infrastructure, equipment, and security for storing and transporting cash and valuables. In the United States, the costs associated with opening a new bank branch are about \$2 million, and costs can be as high as several hundred thousand dollars in developing countries.¹⁸ The ATM channel is generally less expensive than the use of branch tellers because ATMs fully automate cash disbursements and collections, but cash still needs to be transported to and from the machine. The use of POS devices is probably the least expensive of these channels, because the devices are placed at retail or other outlets that already maintain cash on hand.

In general, banks worldwide are trying to move customers toward low-cost technology delivery channels. From June 2000 to January 2002, ICICI Bank in India reduced the number of transactions at branches from 78 percent of all transactions to 35 percent. The remaining 65 percent were processed online, at ATMs, or over the phone.¹⁹ In 2002, transaction costs at ICICI Bank in India were estimated to be Rs. 34 (\$0.68) at a

branch, Rs. 28 (\$0.56) through a call center (e.g., phone banking), and Rs. 20 (\$0.40) at an ATM. (See Figure 1.)

Reaching unserved areas with technology channels

Private and state-owned banks in Brazil pioneered the use of POS devices at retail outlets to deliver banking services to previously unbanked low-income and rural people. Since about 2000, two private-sector banks (Banco Bradesco and Lemon Bank) and two state-owned banks (Banco do Brasil and Caixa Economica Federal) have developed about 27,000 “banking correspondents.” These correspondents are lottery outlets, post offices, supermarkets, grocery stores, petrol stations, and other retail outlets that are present in every municipality in the country, including very rural areas where bank branches would probably be too costly to set up. In small shops, the shopkeeper handles banking services for customers, and in larger stores, a store employee is dedicated for this purpose.

¹⁷ Interview with Michael Kasibante (assistant director, Research and Development, Uganda Microfinance Union), July 2005.

¹⁸ See *Bank Branch Growth Has Been Steady—Will It Continue?* Federal Deposit Insurance Corporation, August 2004.

¹⁹ Singhal and Bikram, *Extending Banking to the Poor in India*, ICICI Bank, March 2002, p. 3.

²⁰ PC banking refers to a proprietary software program that banks distribute to customers, through which they can connect to their accounts and conduct transactions. Internet/mobile banking refers to using the bank’s Web site, from any location, to do banking.

The banks equip each banking correspondent with a POS device, such as a card reader or PC. POS devices and mobile phones are less costly to install than ATMs, and running costs are limited to charges for telecommunications and transaction fees for the retail outlet. In addition, many POS devices can work without an always-on communication and electrical connection, making them ideal for rural locations.

At banking correspondents, customers can open current accounts and access a variety of services, including savings, credit, insurance, money transfers, pensions, government benefits, and bill payments. Since banking correspondents first emerged in Brazil in 2000, private and public banks have opened an estimated 8 million new current accounts through this channel. (See Box 1 for a brief look at Caixa Economica Federal's use of banking correspondents.)

Leapfrogging traditional banking models

In countries where debit and credit cards, POS devices, ATMs, and even bank branches are virtually nonexistent, using mobile phone networks may be a lower-cost way to expand access to financial services. Celpay, a mobile payments

company that operates in Zambia and the Democratic Republic of Congo (DRC), issues special subscriber identity modules (SIM) cards through mobile phone companies. Customers can use SIM cards to make bill payments, store value, and transfer money. For DRC banks, which have only about 35,000²¹ account holders (out of a population of 56 million),²² tapping into the 1 million mobile phone subscribers²³ holds great potential. Because mobile phones work even in rural parts of DRC, they may be an ideal tool to quickly help the country develop a national network for retail payments. Such an approach could leapfrog check- and card-based retail payment systems that most countries use.

Will technology make microfinance profitable for banks?

It is too early to know whether the use of technology channels will be profitable enough to encourage banks to target low-income customers. No thorough profitability analysis of replacing bank branches with

²¹ World Bank project appraisal document, 2003.

²² United Nations estimate (2005).

²³ International Telecommunications Union, 2003.

Box 1 Caixa Economica Federal: Brazil's Leading Operator of Correspondents

Caixa Economica, the state-owned bank that manages the country's lottery network and distributes government benefits, manages about 14,000 banking correspondents. It uses POS devices (a card reader, barcode scanner, and/or PC) with dial-up or high-speed connectivity to process transactions at lottery houses and other retail outlets. Caixa has banking correspondents in all of the country's approximately 5,500 municipalities. The bank estimates that nearly 40 percent of its banking transactions are handled through this channel. It expects to operate 20,000 to 23,000 banking correspondents by 2007 and reach customers in virtually every district of the country, reducing the maximum distance between a customer and a correspondent to two to three kilometers. The most expensive POS devices cost R\$ 7,000 (US\$ 2,800), and connectivity charges are R\$ 400 (US\$ 160) per month. On the other hand, it costs up to R\$ 1 million (US\$ 400,000) to open a bank branch.

Through its correspondents, Caixa offers a full range of banking and payments services, including a simplified current account called Caixa Aqui. This account can be opened at any Caixa branch or correspondent using only an identification card, tax file number (CPF), and either a proof of residence or a declaration of current address. Caixa Aqui clients have access to Caixa's entire branch and correspondent network. Clients are allowed four withdrawals and four account statements per month; additional transactions are R\$ 0.50 each. Deposits and balance inquiries are free. Between May 2003 and March 2005, Caixa opened about 2.8 million new Caixa Aqui accounts. Because monthly transaction volume (debits and credits) cannot exceed R\$ 1,000 (US\$ 400), account balances are relatively small.

Although Caixa has not released data on customer satisfaction, a study commissioned in 2003–04 found that banking correspondents are very pleased with the opportunity to offer banking services for Caixa. According to the study, business owners working as correspondents reported a 96 percent satisfaction rate. More than 88 percent of correspondents reported an increase in sales of 20 percent on average and an average increase in spending per client of about 16 percent.

Sources: Interview with Flavio Antonio Camargo Barros (National Channel Strategy Manager) and Luiz Felipe Pinheiro Junior (Special Advisor) of Caixa Economica Federal.

mobile phones or POS devices at retail outlets is available. Although using ATMs or POS withdrawals to move transactions outside the branch environment for existing customers reduces costs, this approach probably does not help banks acquire customers who live far from bank branches.

In general terms, a technology channel that replaces a bank branch will be profitable only if it serves a critical mass of customers at each outlet and delivers a wide range of services to those customers. Building strong relationships with clients through the channel will help build customers' confidence in the bank, make it more difficult for customers to switch to another provider, and encourage customers to purchase a wider range of financial services.²⁴

Will staff of a retail outlet, or a postal clerk, be able to build this relationship on behalf of the bank or sell a wide range of banking services to customers? Recent information from Brazil suggests that this may be difficult. Thirty percent of the accounts opened at banking correspondents of Banco Popular do Brasil (a division of Banco do Brasil) never become active. After opening for business in June 2004 and attracting 1.05 million customers after six months, the division now maintains only about 771,000 active accounts and is closing unprofitable banking correspondents.²⁵

Recognizing the difficulties of cross-selling outside the branch environment, a handful of banks in developed countries have begun luring customers back into branches with coffee bars and children's play areas. This increases the cost of processing basic transactions, but improves the bank's ability to generate greater revenue from each client through contact with sales staff.

Challenges to lending

The profitability of technology channels hinges on banks' ability to make loans to customers who use these channels exclusively. Traditionally, banks use credit reference checks through credit bureaus or information, such as proof of income, to assess the risk of making unsecured personal loans. But banks cannot rely on this approach for customers in previously unbanked areas who may have been outside the formal banking system. These customers are

unlikely to have a credit history on record at a credit bureau, and poor customers who are self-employed or work in the informal sector are unlikely to have proof of income.

How will banks handle loan appraisals for customers without established credit histories, or for those who have repaid loans fully in the past but are not listed by bureaus that count only negative information? Banks in Brazil are taking two approaches.

First, to make unsecured personal loans, banks are adjusting their in-house credit scoring models to evaluate demographic information, account activity, and bill payment history available for new customers. Demographic information is captured when the account is opened, and behavioral information (account activity and bill payments) is captured on an on-going basis. Emerging scoring methodologies may be able to assess individual repayment capability based on these data, but it is unclear whether this approach can work for micro-enterprise loans that may be larger than personal loans.

Banco Popular is also attempting to partner with specialized microfinance lenders to originate, appraise, and monitor loans to micro-entrepreneurs. During the past 30 years, MFIs have developed specialized techniques to identify potential customers in the informal sector, appraise small unsecured loans, and monitor the use and repayment of these loans.

A third approach attempted by Banco Popular is innovative, but costly. In this approach, each new account holder is automatically eligible for a R\$ 50 (US\$ 15) loan from the bank. If the customer repays this loan according to the terms, he or she is recorded as a good borrower and may be eligible for a larger loan, up to R\$ 600 (or US\$ 240). Defaulters are recorded as poor borrowers and may be reported to the national credit bureau. Although this approach gives the bank an individual credit history it can use for further lending, defaults have been high. In August 2005, provisions for debt reached nearly R\$ 19 million (US\$ 7.6 million), or about 29

²⁴ von Pischke, *Finance at the Frontier*, World Bank, 1991.

²⁵ "Brazil: Banco Popular do Brasil hit by high levels of debt default and high cost," *Valor Economica*, November 11, 2005.

percent of the total credit volume of R\$ 65 million (US\$ 26 million), up from 24 percent in July.

Low-cost delivery is not the only factor involved in whether banks can make money using technology channels to serve low-income areas. Banks must figure out how to maximize the number of services they can sell to these customers, what to charge for those services, and how to keep customers active over the long term.

Are poor people gaining access to financial services through technology?

With technology channels, such as POS devices and mobile phones, banks in South Africa and Brazil are rapidly opening basic accounts for customers who previously were excluded from the formal financial system. Although many of these new accountholders are likely to be poor, we do not know this for sure. We also do not know the characteristics of low-income people who have chosen not to use these delivery channels.

In October 2004, with government encouragement, the four largest South African banks and the postal bank began offering a low-cost transaction account intended for low-income customers. A May 2005 study of this Mzansi “national bank account” found that over 90 percent of new accountholders were previously unknown to the bank at which they opened their account. Given the thin branch coverage in the provinces where most customers opened accounts, it is likely that many of these new customers had not previously maintained accounts at any other bank.²⁶ Absa Bank claims to have opened roughly 3.4 million new bank accounts (including Mzansi accounts) for people who were previously unbanked through portable bank branches, which are set up and run on generators; mobile bank branches; and cellular network phone booths.²⁷ (See Box 2 for a discussion on mobile banking in South Africa.)

²⁶ The Banking Association of South Africa, www.banking.org.za/documents/2005/MAY/PresReleaseonemillionaccount.pdf.

²⁷ “Reaching the unbanked: Learning from South Africa’s FIs,” *ATM Marketplace News*, April 25, 2005.

Box 2 Mobile Banking in South Africa

In South Africa, an estimated 16 million people, or 48 percent of the adult population, are unbanked or underbanked and lack access to formal financial services. There are also 20 million mobile phone subscribers, nearly 80 percent of whom are prepaid customers. Many of these subscribers are in the low-income segment. Mobile phone operators and banks are aggressively seeking ways to deliver financial services using the rapidly growing mobile phone network.

WIZZIT, a startup mobile banking provider, targets low-income customers with an interest-bearing bank account that customers access with their mobile phone. Customers can use their phones to make person-to-person payments, transfer money, and buy airtime for a prepaid mobile phone subscription. WIZZIT also gives customers a “Maestro” branded debit card with which they can make purchases at retail outlets and deposit or withdraw money at ATMs. WIZZIT is organized as a division of the South African Bank of Athens.

Competing with WIZZIT are the mobile banking initiatives of Standard Bank and First National Bank (FNB). Standard Bank has entered into a joint venture with MTN, a leading mobile operator in South Africa, to offer a service called MTN Banking. For Standard Bank, the joint venture is a separately branded channel targeting low-income customers who use mobile phones but may not have access to, or comfort in, using a bank branch. MTN Banking uses MTN’s dealers to distribute the special mobile phone SIM cards that are required to operate the mobile banking service. Customers who open accounts with MTN Banking, in effect, have a bank account at Standard Bank and are limited in the total monthly transaction volume and account balance they can maintain in the account. FNB offers mobile banking simply as an alternative channel for its existing customers, much as it offers customers the use of ATMs.

Each organization is optimistic about using mobile phones to increase penetration of financial services among the unbanked, but creating a profitable business will be challenging. Because transaction fees are currently the main revenue stream, providers are seeking high volumes by looking to markets elsewhere in southern Africa, as well as trying to capture popular person-to-person transfers of airtime and money. At the same time, mobile banking providers must find ways to migrate customers from basic payment and transfer transactions to higher-value products, such as credit and savings. To achieve this, they need to build a network of service points, where customers can deposit and withdraw cash, and develop a methodology for assessing credit risk.

Sources: Interviews with Brian Richardson, CEO WIZZIT; Jenny Hoffmann, CEO MTN Banking; and Len Pienaar, CEO FNB Mobile and Transit Solutions.

Information from Brazil's banking correspondents, which use POS devices at retail outlets, also indicates early success at reaching rural and remote areas that earlier had no banking infrastructure. In 2000, 1,628 municipalities in Brazil did not have bank branches or banking correspondents. However, by the end of 2003, banking services were available in all of Brazil's more than 5,600 municipalities, largely because of the increase in correspondents. In the country's poorest region, the Northeast, many municipalities are served *only* by banking correspondents. In the states of Rio Grande do Norte and Piauí, these municipalities comprise 72 and 71 percent of all municipalities, respectively. The Northeast has the second largest number of banking correspondents in Brazil (by region) and has the lowest regional gross domestic product per capita (R\$ 3,010 or about US\$ 1,204).²⁸

In addition, a large portion of banking correspondent customers appears to be poor. Forty-eight percent of correspondent clients of Caixa Economica earn less than R\$ 200 (or US\$ 75) per month, less than the country's minimum wage. Similarly, 58 percent of Banco Bradesco's clients earn less than this amount per month.²⁹

Still, one should not conclude that poor people will use formal financial services just because a technology channel is available to them. Witness the high proportion of inactive accounts opened at Banco Popular, described earlier. More research should be done to understand why some poor people do not use these technology delivery channels. Is it because they are not comfortable using technology, do not trust the operator, are illiterate, or do not feel the financial products offered are suitable for them? Once these questions are answered, banks will be in a better position to tailor their channels and products to serve diverse types of poor people.

What lessons have emerged from early experiments with technology channels?

The most powerful lesson learned from these initiatives is that government encouragement and supportive policy are important determinants of success. In addition, certain aspects of the financial

sector infrastructure can improve the chances that banks will be able to use technology profitably to reach unserved areas. Finally, key operational challenges remain to be solved.

Supportive regulation

Governments have considerable power in creating an environment that enables financial institutions to use technology delivery channels.³⁰ The precondition for this type of channel is a broad regulatory environment that supports the use of electronic payments. Financial contracts should be enforceable, telecommunications policy should foster widespread access, and privacy and data security must be ensured.³¹ In addition, rules in three areas can thwart or promote the extension of electronic payments:

Rules governing the use of electronic payments

In some countries, regulations that govern the use of electronic payment systems constrain the use of technology to deliver a wide set of services. In India, POS machines are not permitted to deliver cash-back services (a form of cash withdrawal), and only security guards, and not bank employees, are permitted to manage ATMs.³² The latter makes it difficult for banks to use ATMs to serve poor customers, because these customers need help from attendants to use the machine. To overcome the obstacle, some banks train security officers on how to assist customers.

Rules determining account opening requirements³³

To help banks attract low-income customers, regulators in South Africa and Brazil relaxed norms on the identification requirements to open bank accounts with limited maximum balances. In South

²⁸ Kumar, Parsons, and Urdapilleta (forthcoming).

²⁹ *Ibid.*

³⁰ See Porteous, *Making Financial Markets Work for the Poor*, for a thorough discussion of the ways in which policymakers can expand access to financial services—directly and indirectly.

³¹ Claessens, Glaessner, and Klingebiel, *Electronic Finance in Emerging Markets: Is Leapfrogging Possible?* World Bank (2002).

³² Singhal and Duggal, *Extending Banking to the Poor in India*, ICICI Bank, March 2002, p. 9.

³³ For more information on account-opening requirements as they pertain to international efforts on anti-money laundering (AML) and combating the financing of terrorism (CFT), see CGAP's Focus Note No. 29, "AML/CFT Regulation: Implications for Financial Service Providers That Serve Low-Income People," available at www.cgap.org.

Africa, regulators waived provisions of the Financial Intelligence Centre Act, which requires proof of identification and address for all account-holders. Customers opening a new Mzansi account need show identification only. Brazil's banks can open basic transaction accounts for poor people with no proof of address or income.

Regulation governing agency relationships

For banks that wish to deliver financial services through retail outlets, these bank agents must be allowed to conduct a wide range of services for customers using POS devices or other technology, while mitigating risks of fraud, theft, and money laundering.³⁴ The Reserve Bank of India disallows this: only bank employees or ATMs may handle savings deposit and withdrawal transactions. In contrast, Brazil's legislation governing the use of banking correspondents has evolved since the early 1970s, and today banking correspondents can perform many of the same functions of tellers at bank branches.³⁵

Governments also can create a conducive environment for technology delivery channels by instituting national identification systems. When each citizen has a government-issued identification, it is relatively easy for banks to open savings accounts for customers, identify individual borrowers, and build a payment history based on transactions with a variety of payors and lenders. Opportunity Bank in Malawi accepts fingerprint biometrics stored on a smart card in lieu of the driver's license or passport that all individuals must present when opening a bank account. For the poor or illiterate, these documents are difficult, and often costly, to obtain.³⁶ National identification also lays the foundation for a credit bureau, which reduces banks' cost to appraise borrowers and increases incentives to repay.

Ensuring widespread usage by poor people³⁷

As banks have begun creating new technology delivery channels that serve low-income people, they have begun to realize that understanding this new client segment is essential for success. As one central banker explained, "[T]he foundation for creating such delivery channels is superior insights into customer behaviour. These can come in many

forms, but at their most basic they entail understanding customer needs for the delivery of different products, how these needs vary by customer types [...], current customer behaviour [...], and customer profitability."³⁸

The following issues are particularly important:³⁹

- *Perceived value addition.* How do clients perceive the incremental value of using a technology-enabled network rather than a teller or other alternatives? Some clients in the Philippines prefer to travel to the bank or MFI branch and stand in line rather than pay a nominal fee to make a loan repayment through a mobile phone.⁴⁰
- *Consumer education.* Experiments in which debit cards are offered to the employed poor in India have shown that, unless clients are specifically told not to reveal their PINs to others, they often will write these numbers on the debit card itself, rendering account security useless.
- *Usability.* Depending on the type of clients targeted, the technology device, customer interface, and usage process should be designed to make the system easy to use and to learn. To reach indigenous and illiterate customers, Prodem (Bolivia) designed ATMs with color-coded touch screens and audio instructions available in Spanish, Quechua, and Aymara.⁴¹
- *Cultural fit.* Cultural issues around gender, caste or class, technology, money, privacy, and so on must be addressed for the system to be successful. Vision S.A., an MFI in Paraguay, credits the aspirational nature of its VISA-branded debit cards with its rapid uptake among poor customers.⁴²

³⁴ In-depth research on the various policy and supervisory approaches to the use of agents remains to be done.

³⁵ Kumar, Parsons, and Urdapilleta (forthcoming).

³⁶ Interview with Larry Reed, CEO, Opportunity International Network, August 2005.

³⁷ For information on the adoption of electronic banking technologies by consumers in developed countries, see Kolodinsky and Hogarth, "The adoption of electronic banking technologies by American consumers," *Consumer Interests Annual*, vol. 47, 2001.

³⁸ Address by Shri Vepa Kamesam, deputy governor of the Reserve Bank of India, at the Twenty-Fifth Bank Economists' Conference, Mumbai, 12 December 2003.

³⁹ Ivatury, "Harnessing the Power of Technology to Deliver Financial Services to the Poor," *Small Enterprise Development Journal*, December 2004.

⁴⁰ Interview with Edwin Soriano, researcher, June 2005.

⁴¹ CGAP's IT Innovation Series article on ATMs (www.cgap.org/technology).

⁴² Interview with Beltran Macchi (CEO, Vision S.A.), August 2004.

- *Trust.* MFI field staff who use hand-held computers to record transactions have found that customers learn to trust the system by gradually recognizing the beeps the device makes when it is used correctly and prints a receipt.

Mitigating the risk of fraud or theft

Using third parties to handle cash on behalf of a bank creates risk of fraud and theft. In India, ICICI Bank appoints individual agents or franchises to collect loan repayments. To ensure agents do not steal this money, the bank requires each agent to maintain a balance in an ICICI Bank account that the bank can claim. The agent is not permitted to collect more cash in a day than the balance of funds in the account.

Banco Popular in Brazil uses intermediaries, such as Netcash (a private banking correspondent management company), to identify and contract banking correspondents, to equip and train them, and to monitor their activities. The intermediaries are liable for all the cash correspondents handle on behalf of the bank. Using intermediaries also keeps overhead low: after six months of operations, Banco Popular had only about 80 employees, all in Brasilia, although it had acquired about 1.05 million clients through 5,500 POS devices at retail outlets across Brazil.

Banco Bradesco, Brazil's largest private bank, gives incentives to its branch managers to help supervise the 7,900 banking correspondents it operates in 4,732 of Brazil's roughly 5,500 municipalities.⁴³ The bank consolidates the financial results for each correspondent into the balance sheet of the nearest branch, explicitly making the performance of correspondents the responsibility of branch managers.

Ensuring adequate cash liquidity at the retail outlet⁴⁴

Because Banco Postal works through postal offices in remote parts of Brazil, including some reachable only by boat or airplane, it must service communities without being able to transport cash in and out. One solution has been to work with local businesses and government to ensure that their cash is deposited by the end of each month. This

strategy allows them to provide cash withdrawals to pension and government welfare recipients at the beginning of each month. Banco Postal also uses simple strategies to manage intra-day cash-flows. On the days pensions are paid out, long lines begin forming at the banking counter at 7 a.m. To reduce these lines, post office employees offer free coffee to customers who arrive after 10 a.m. and give small gifts to those who withdraw money after lunch, rather than in the morning.⁴⁵

Strategic Implications for Microfinance

The profitability of technology delivery channels, and the extent to which they can serve a wide range of poor people, is not yet known. Still, banks and microfinance practitioners have much to learn from the early experience of Brazil's private- and public-sector banks in reaching remote areas and from mobile banking initiatives under way in South Africa and the Philippines.

Three aspects of the use of technology for microfinance deserve more attention.

If governments want to harness the potential of technology to increase access to financial services for poor people, they must think more broadly about policy. Many MFI advocates see a lack of specific microfinance legislation as the main regulatory obstacle to giving poor people greater access to financial services. In fact, there is a wide range of regulatory frameworks that can determine whether formal financial institutions, and even mobile phone operators, will develop innovative ways of delivering financial services to poor and excluded people—such as with the use of technology.

Further study is needed to understand the extent to which poor people are excluded by technology delivery channels and the effect this has on channel profitability. By making it possible to distribute pieces of the financial services delivery chain among a number of actors—banks; retail outlets; payments companies,

⁴³ This banking correspondent operation has a separate brand called Banco Postal.

⁴⁴ For more information on the challenges of using agents to process cash transactions, see Ivatury, "Cash-In/Cash-Out: The Number One Problem," at www.cgap.org/technology.

⁴⁵ Interview with Andre Cano, director of Banco Postal, May 2005.

such as VISA International or perhaps Vodafone; and MFIs—technology means that the ultimate point of contact for poor customers may be a grocery store or post office clerk and a POS device. How comfortable, convenient, and trustworthy all poor customers find technology service channels will determine whether some customer segments will continue to be excluded from formal financial services and whether a channel will be profitable for the bank.

Technology channels raise questions about the role of MFIs in providing financial services to poor people.

Today, MFIs' core strength is the ability to identify creditworthy low-income borrowers, appraise loans, and manage delinquencies. MFIs are also able to conduct market research, educate and train customers, and provide specialized customer support. However, as banks try to make technology delivery channels profitable, they will attempt to develop credit scoring and other techniques to substitute for MFI risk-appraisal methods. As this evolution takes place in at least a handful of markets in the coming years, MFIs will need to clarify their role in delivering financial services to poor people.



Annexes

Annex 1 FINANCIAL INSTITUTIONS THAT USE E-PAYMENTS TO SERVE THE POOR

Region	Country	Financial Institution	Type	Technology	Description
AFR	Botswana	Botswana Savings Bank	Bank	ATM	Deposits, withdrawals, bill payments, money transfer, account opening, government contributions
AFR	Cameroon	Afrilandfirstbank	Bank	Internet	Deposits, withdrawals, bill payments, money transfers
AFR	Kenya	Faulu Kenya (Safaricom)	NBFI	Cell phone	Deposits, withdrawals, bill payments, money transfers, loan disbursement, account opening
AFR	Kenya	Kenya Cooperative Bank	Co-op	POS, ATM	Deposits
AFR	Kenya	K-Rep Bank	Bank	ATM	N/A
AFR	Malawi	Opportunity International Bank	Bank	ATM, POS	Deposits, withdrawals, bill payments, money transfers, loan disbursement, loan repayment, collecting insurance premiums
AFR	Malawi	First Merchant Bank/FINCA	Bank/MFI	ATM	Deposits
AFR	Malawi	New Building Society	Building Society	ATM	Smartcards and biometrics for deposits, payments, credit management, and utility settlements
AFR	Namibia	Bank Windhoek	Bank	ATM, Internet	Mobile banking units in remote areas, international e-transfers
AFR	Senegal	ACEP PAMECAS PAME-AGETIP	Co-op Co-op Co-op	ATM, POS	Deposits, withdrawals, bill payments, money transfers
AFR	South Africa	Teba Bank	Bank	POS, ATM, Internet, Cell phone	Deposits, withdrawals, bill payments, money transfers, account opening, government grant distribution
AFR	South Africa	WIZZIT	Bank	POS, ATM, Internet, Cell phone	Bill payments, account opening, cash back
AFR	South Africa	SAPO	NBFI	POS, ATM	Biometric registration, deposits, withdrawals, bill payments, money transfers, account opening, collecting insurance premium
AFR	South Africa	Standard Bank	Bank	POS, ATM	Withdrawals, money transfers, loan repayment, account opening
AFR	South Africa	ABSA	Bank	ATM	ATMS for pensions
AFR	South Africa	First National Bank	Bank	POS, ATM	Withdrawals, payments, biometrics
AFR	South Africa	Standard Bank	Bank	POS, ATM	Withdrawals, money transfers, loan repayment, account opening

Annex 1 FINANCIAL INSTITUTIONS THAT USE E-PAYMENTS TO SERVE THE POOR

Region	Country	Financial Institution	Type	Technology	Description
AFR	South Africa	Peoples Bank Limited Sub: PEP Bank Part of Nedcor Banking Group	Bank	ATM	Savings, loans, and funeral insurance
AFR	Tanzania	Tanzania Postal Bank	Bank	ATM	Withdrawals, bill payments
AFR	Tanzania	CRDB	Bank	POS	Deposits, withdrawals, bill payments, money transfers, loan repayment
AFR	Uganda	Uganda Microfinance Union	NBFI	POS	Deposits, money transfers, loan repayment
AFR	Uganda	FINCA Uganda	NBFI	POS	Withdrawals, loan disbursement, loan repayment
AFR	Uganda	Centenary Bank	Bank	POS, ATM, Internet, Cell phone	Deposits, withdrawals, bill payments, money transfers, loan repayment
AFR	Zimbabwe	Jewel Bank	Bank	POS, ATM	Withdrawals
AFR	Zimbabwe	Central Africa Building Society	Building Society	POS, ATM, Cell Phone	Deposits/withdrawals
EAP	Indonesia	The International Visitor Program, Bank Rakyat Indonesia	Bank	POS	Withdrawals, bill payments, money transfers
EAP	Malaysia	Agricultural Bank of Malaysia Bank Pertanian	Bank	ATM	N/A
EAP	Philippines	Rural Banks Association of the Philippines	Bank	Cell Phone	Payments
ECA	Albania	Tirana Bank	Bank	POS, ATM	N/A
ECA	Czech Republic	Czech Savings Bank	Bank	ATM	Loan management
ECA	Kosovo	Procredit Bank (previously MEB Bank)	Bank	ATM	N/A
ECA	Moldova	Victoria Bank	Bank	POS, ATM, Internet, Cell Phone	Withdrawals, bill payments, money transfers
ECA	Poland	National Association of Cooperative Savings and Credit Unions, Poland	NBFI	ATM, Internet	N/A
ECA	Tajikistan	AgroInvest Bank	Bank	POS, ATM	Withdrawals, bill payments
LAC	Bolivia	FFP Prodem S.A.	NBFI	POS, ATM, Internet	Withdrawals, money transfers, loan disbursements
LAC	Brazil	Unibanco	Bank	POS, ATM, Internet, Cell Phone	Withdrawals, deposits, bill payments, money transfers, loan disbursements, account opening, remittances, collecting insurance premium
LAC	Brazil	Banco do Brasil (Banco Popular)	Bank	POS, ATM, Internet	Online national and international transfers, bill and insurance payments, withdrawals, deposits, loan disbursements, account opening, remittances
LAC	Brazil	Caixa Economica Federal	Bank	POS, ATM, Internet	Government contribution, bill payment, deposit/withdrawals, money transfers, loan disbursements, account opening, remittances, insurance payments
LAC	Brazil	Lemon Bank	Bank	POS, ATM, Internet	Deposits, withdrawals, bill payments, money transfers, loan disbursements, account opening, remittances, insurance payments
LAC	Brazil	Banco Postal (Banco Bradesco)	Bank	POS, ATM, Internet	Savings, loans, transfers, checking, credit cards, withdrawals, deposits, bill payments, loan disbursements, account opening, remittances, insurance payments
LAC	Chile	Banco Estado	Bank	ATM, Internet	Deposits, withdrawals, money transfers, bill payments, loan repayment, IVR
LAC	Chile	Bandesarrollo	Bank	POS, ATM, Internet, Cell phone	Deposits, withdrawals, money transfers, bill payments, loan repayment, account opening
LAC	Chile	Banefe Banco Santander	Bank	Internet	N/A
LAC	Colombia	Fundacion Social	NBFI	Cell Phone	Deposits, withdrawals, money transfers, bill payments, loan repayment, account opening, collecting insurance premium
LAC	Cuba	Banco Popular de Ahorro	Bank	POS, ATM	Deposits, bill payments, money transfers, loan repayment
LAC	Dominican Republic	Grupo BHD	Bank	POS	Remittances delivery
LAC	Ecuador	Banco Solidario	Bank	ATM	Remittance delivery

Annex 1 FINANCIAL INSTITUTIONS THAT USE E-PAYMENTS TO SERVE THE POOR

Region	Country	Financial Institution	Type	Technology	Description
LAC	Guatemala	Banrural	Bank	POS, ATM, Internet	Withdrawals, deposits, bill payments, money transfers, loan disbursements, account opening, remittances, collecting insurance premium
LAC	Guatemala	Bancafe	Bank	POS, ATM, Internet	Withdrawals, bill payments, money transfers
LAC	Haiti	Sogebank Subsidiary: Sogesol	Bank	ATM	N/A
LAC	Mexico	Banamex	Bank	Internet	Payroll consumer lending
LAC	Paraguay	El Comercio	MFI	POS, ATM, Internet	Consumer credit, savings, credit cards, and credit cooperatives
LAC	Paraguay	Vision	MFI	POS, ATM	Deposits, withdrawals, payments
LAC	Peru	Banco de Trabajo	Bank	ATM	N/A
LAC	Peru	Mibanco	Bank	ATM	N/A
SA	Bangladesh	Janata Bank	Bank	ATM, Internet	Withdrawals
SA	India	BASIX	NBFI	Internet	Loan disbursement
SA	India	Canara Bank	Bank	POS, ATM	Deposits/withdrawals
SA	India	Corporation Bank	Bank	POS, ATM	Deposits/withdrawals
SA	India	ICICI Bank	Bank	Internet	Remittance delivery, collecting insurance premium
SA	Sri Lanka	National Savings Bank	Bank	ATM	N/A

Annex 2

Annex 2 FINANCIAL INSTITUTIONS THAT PARTICIPATED IN CGAP'S E-PAYMENTS SURVEY

Region	Country	Institution	Technology
AFR	Cameroon	Afrilandfirstbank	Internet
AFR	Kenya	Vodafone (Faulu Kenya)	Cell Phone
AFR	Malawi	Opportunity International Bank	ATM, POS
AFR	South Africa	Teba Bank	POS, ATM, Internet, Cell Phone
AFR	South Africa	WIZZIT	POS, ATM, Internet, Cell Phone
AFR	South Africa	SAPO	POS, ATM
AFR	South Africa	Standard Bank	POS, ATM
AFR	South Africa	Standard Bank	POS, ATM
AFR	Tanzania	Tanzania Postal Bank	ATM
AFR	Tanzania	CRDB	POS
AFR	Uganda	Uganda Microfinance Union	POS
AFR	Uganda	FINCA Uganda	POS
AFR	Uganda	Centenary Bank	POS, ATM, Internet, Cell Phone
AFR	Zimbabwe	Jewel Bank	POS, ATM
ECA	Tajikistan	AgroInvest Bank	POS, ATM
LAC	Bolivia	FFP Prodem S.A.	POS, ATM, Internet
LAC	Brazil	Unibanco	POS, ATM, Internet, Cell Phone
LAC	Chile	BancoEstado	ATM, Internet
LAC	Chile	Bandesarrollo	POS, ATM, Internet, Cell Phone
LAC	Colombia	Fundacion Social	Cell Phone
LAC	Cuba	Banco Popular de Ahorro	POS, ATM
LAC	Guatemala	Banrural	POS, ATM, Internet
LAC	Guatemala	Bancafe	POS, ATM, Internet
LAC	Paraguay	El Comercio	POS, ATM, Internet
SA	Bangladesh	Janata Bank	ATM, INTERNET
EAP	Indonesia	The International Visitor Program, Bank Rakyat Indonesia (BRI)	POS

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