Overview

Payment mechanisms ensure that designated benefits get to entitled beneficiaries on time. In safety net programs, effective payment mechanisms are seen as critical to the timeliness and reliability of transfers, as well as to the smooth functioning of the overall program. In recent years, program operators, financial institutions, and information technology innovators have developed a wide range of strategies for delivering transfers effectively.

At a Glance

At the outset of a program, two key decisions must be made: the type of delivery instrument and the distributing agency for making payments. The type of delivery instrument (direct cash payment, voucher, electronic transfer) depends on a variety of factors including program approach (cash or near-cash), program duration, available technology infrastructure, local capacity, and cost—the higher the cost, the less money available for beneficiaries.

Often direct cash is preferred at the beginning of a program when transfers need to be disbursed quickly, and there is little time to set up electronic payment systems. In recent years, the number of programs introducing electronic delivery mechanisms has expanded rapidly (see the Brazil example below), even in low-income contexts (see the Kenya example below). For some programs, the preferred option is a combination of electronic and direct payment methods, as in the Bangladesh example below.

Innovative technology has greatly improved delivery instruments in cash transfer programs. Growing evidence shows that automated systems can reduce fraud and achieve wider coverage. Transfer programs are reaching a larger number of beneficiaries through the adoption of smart cards, point-of-sale (POS) devices, and cell phones.

It is important to note that the best approach does not necessarily depend on advanced technology, but instead successfully balances the above-mentioned factors.
Bangladesh: Making cash payments at local banks and branchless banks

Description
The Primary Education Stipend Project (PESP) uses Bangladesh’s national bank network to disburse stipends on a quarterly basis to program beneficiaries. PESP aims to improve the educational participation—enrollment, attendance, and performance—of primary school-aged children by providing cash payments to targeted poor households. Designated national banks disburse stipends on a quarterly basis to authorized individuals on a predetermined date at local bank branches or temporary branchless posts.

The PESP delivery mechanism works as follows. The school management committee and local education officials compile a list of needy students and send it to the subdistrict officer, who approves the list and forwards it to the project implementation monitoring unit for its approval. Once the unit assesses the demand for a stipend, it processes the payment with the bank head office. The bank transfers the funds to its divisional headquarters at local public bank branches or branchless banks. PESP monitoring officers and bank officers schedule and inform schools of the time and place for disbursement. Finally, parents of beneficiary students collect cash payments from the bank upon verification of a photo card account.

Bangladesh intends to introduce mobile banking for making government transfers. Mobile banking has the potential to accelerate payment transactions to beneficiaries and to facilitate the expansion of safety net programs.
India: Potential use of smart cards for making payments

Description
India’s Public Distribution System (PDS) uses a network of fair price shops (FPS) to provide food rations and nonfood items at subsidized rates to poor and vulnerable population groups. PDS schemes and supply chains are fraught with problems, including the diversion of commodities from ration shops to open markets, flawed lists of consumers, and poor quality of items supplied. A study was recently undertaken to determine how the use of smart cards could alleviate at least some of these pervasive problems.

As piloted, sales atFPS are carried out when beneficiaries present smart cards authenticated with their fingerprints for each transaction. Sales summaries are transferred to the PDS administrative entity in charge of recordkeeping. Based on records, the entity calculates the entitlement of food grains needed for each FPS and the money required to be deposited by each FPS to purchase food rations. The information regarding the amount of money needed is handed over to the bank, and the stock entitlement to the relevant warehouse. FPS owners then deposit the appropriate amount in the bank, and the bank issues a receipt so that FPS owners can collect rations from warehouses and sell them at their shops.

Receptivity to the introduction of a smart card–based PDS was good. FPS, beneficiaries, and both private and public food firms indicated their preference for a smart card–based PDS, but expressed a concern about the lack of a well-established technology network. The study thus analyzed the feasibility of implementing a smart card–based system where an information network was not well established; it concluded that stakeholders did not need to be connected to an information network, as data flow could take place off line through smart cards.

Brazil: ATMs as a means of making payments

Description
Bolsa Familia, Brazil’s well-known conditional cash transfer program, uses Caixa, Brazil’s second largest bank, to pay beneficiary families. Transfers are provided on a monthly basis using an electronic benefit card. The benefit can be withdrawn within 90 days from one of 16,281 automated teller machines (ATMs). The program disseminates payment calendars so families can plan for savings and expenditures. The maximum distance to an ATM is 2–3 kilometers.

The program has proved that upgrading payment mechanisms can substantially reduce program costs accruing to government. Switching from manual to electronic delivery of grants helped achieve a dramatic drop in administrative costs—from 14.7 percent of the grant value disbursed in 2001 to 2.6 percent in 2006.

Kenya: Making payments via mobile banking

Description
The mobile communications giant Vodafone, working with Kenya’s mobile network operator Safaricom, launched M-PESA, an initiative aimed at making financial services more accessible in Kenya. Originally cofunded by the United Kingdom’s Department for International Development, M-PESA was designed to allow customers without access to conventional banking and with a prepaid phone to move money between accounts.

All customers need to register at an authorized M-PESA agent (e.g., gas stations, supermarkets, Safaricom stores) by providing a Safaricom mobile number and their identification card. The agent activates the account on the handset, which enables customers to deposit and withdraw cash at any M-PESA outlet. Targeted households are clustered into groups of 10 or less, and one literate person is nominated as cluster leader. Although the equipment is shared by all cluster members, each beneficiary receives his/her own card to register for M-PESA to reduce the risk of fraud among cluster members.
Cash distribution is most common in low-income countries. The only requirement for the cash provider to process payments is a list of beneficiaries or a muster roll. The beneficiaries present some form of identification and a checkbook for recording transactions, sign an official paper, and receive the transfer. Payments can take place in a variety of settings, including banks, public offices, and worksites; security measures might be required, depending on the location. Cash may be preferred at the beginning of a program when transfers need to be disbursed quickly, and there is little time to set up electronic payment systems.

Checks and vouchers are typically pieces of paper that can be exchanged for cash or goods. Use of this method is more common in middle-income countries, as checks and vouchers require a good system of banks and/or post offices through which to process the payments. Checks and vouchers are easily transportable. However, they cannot be transferred electronically and tend to be expensive and cumbersome due to printing and distribution costs, as well as costs associated with falsification. There are further costs associated with competitive bidding for printers and distributors and arrangements with banks and merchants for redemption.

Electronic cash transfers are an effective way to deal with security issues. Their ability to accommodate small, more frequent disbursements helps make beneficiaries less of a target for theft after they collect their benefits. This type of transfer also eliminates intermediaries, delays in payment, and rent-seeking behavior. Nonetheless, costs may be high, as banks usually charge fees for service provision. Establishing an electronic payment system takes time, good databases, and excellent partnership arrangements with providers.

- **Debit cards** have a magnetic strip that contains information about a beneficiary’s bank account. A debit card can be used to withdraw cash from ATMs or to process purchases using POS devices. Each time a debit card is used, the magnetic strip produces the banking information required by the bank, which then automatically approves the transaction and deducts the stipulated amount from the corresponding account. The drawback of debit cards is that they may not provide adequate geographic coverage, as they rely on the use of ATMs or POS devices with telephone lines directly connected to bank systems.

- Similarly, **smart cards** are disposable cards that contain an electronic chip that can hold a large amount of user information. Unlike debit cards, smart cards do not require a bank account, since the beneficiary information is embedded in the card. Therefore, transactions can take place via remote POS devices and ATMs not connected to bank systems.

- **Cell phones** containing an embedded smart card can be easily connected to branchless banks, other telephones, or POS devices. Customers must visit an authorized agent to withdraw cash from, or deposit cash into, their accounts. The cell phone then records the transaction. A disadvantage of this approach is that the amount of money cell phones are allowed to “carry” is restricted.

Kenya’s M-PESA initiative is Africa’s first mobile banking system; it is based on electronic cash transfers via cell phone.
Making Payments

Distributing Agencies

State or public banks can be used to issue cash to beneficiaries or to exchange checks and vouchers. They can also maintain beneficiary accounts to which programs can wire money. The main advantage of banks is their considerable expertise in handling cash. However, bank branches might not be available in remote locations.

Post offices offer a good alternative to banks. They can provide payment and in-kind transfers based on a list of beneficiaries. They also generally have wide geographical coverage with an established network of delivery routes. However, post offices lack the financial expertise that banks offer.

State banks or post offices may be most suitable in the early phase of a program because they offer an existing system of public transfers and have considerable coverage. Moreover, a competitive bidding process to contract out payments may take some time.

Branchless (mobile) banks require bank employees to travel with cash to areas where there are no bank branches, thus reducing transportation costs to beneficiaries who would otherwise have to travel to get to a bank. This service is more costly for banks—which might pass the cost on to other programs and customers.

ATMs are computerized devices that provide customers of banking institutions access to financial transactions in a public space without the need for a bank teller. ATMs tend to have low operating costs and high coverage. Factors that determine the suitability of ATMs include infrastructure (especially electricity), security considerations, and costs.

Beneficiaries may also receive in-kind transfers in retail stores upon presenting vouchers, passbooks, identity cards, or electronic cards. The stores are responsible for managing stocks of food and financial transactions; this entails providing records of transactions to government officials for commodities received or passing the vouchers on to banks for reimbursement purposes.
Public agencies can also be used as a place where benefits are distributed. Appropriate agencies would be those experienced in making cash payments. Nongovernmental organizations (NGOs) may be a good alternative to banks or post offices if they have more extensive networks in a region. Other possible payment locations include worksites for public works projects, lottery ticket vendors, and schools. Armored trucks can also deliver cash at centralized locations.

Point-of-sale devices are computerized retail payment systems that replace cash or human registers. A POS device has a personal computer with barcode readers, optical scanners, and magnetic stripe readers for capturing and recording retail stores’ transactions. They collect sales and payment information electronically only after the beneficiary smart or debit cards are presented and authenticated. Payment information is then passed on to the financial institution for reimbursement purposes. POS systems are generally used when programs distribute in-kind transfers. They can work off line and ensure that retail stores do not overcharge for authorized commodities. Costs of POS systems are significant if beneficiaries are scattered, as in rural areas where only relatively few beneficiaries may use the system. In urban areas where beneficiaries may be more concentrated, the costs of a POS system can be significantly reduced.

RESOURCES


Consultative Group to Assist the Poor (CGAP). 2009. "Banking the Poor via G2P Payments." Focus Note 58. CGAP and Department for International Development, Washington, DC.


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