

Direct Benefit Transfer and Financial Inclusion Learning from Andhra Pradesh

In collaboration with the World Bank and SERP, CGAP carried out a research project from April to September 2013 to understand the electronic benefit transfer (EBT) system that the state of Andhra Pradesh has developed since 2006. Using quantitative and qualitative analysis, the research analyzed the policy, supply, and demand side of this EBT ecosystem, with a view that lessons from Andhra Pradesh are valuable for the Direct Benefit Transfer (DBT) roll-out across India, as well as global knowledge on government to person payments and its link to financial inclusion.

In fiscal year 2012-2013, Government of Andhra Pradesh channeled \$1.2 billion of NREGA and Social Security Pensions (SSP) payments through this EBT channel. This year the amount is expected to increase to \$1.5 billion. Andhra Pradesh has built a rich ecosystem to deliver payments electronically, and was the first state in India to implement this at scale. The system has been designed and incentivized to disburse payments. Although there are no banking sector regulatory barriers that prevent this channel from being used to promote financial inclusion, there are several design elements, as discussed below, that act as barriers. While the research uncovered many of the difficulties in making regular payments to the poorest populations across a large state, AP is still an example to be followed and one from which many lessons can be learned.

The research reviews the experience of recipients, investigates the business case for banks, and analyzes the efficiency of the technology and payment models being used. The research also investigates whether the EBT accounts could become the foundation for broader financial access in Andhra Pradesh by the banks. More specifically, the study was guided by these research questions:

Key Research Questions

1. What are the various types of technology and payment models being used and which are most efficient from demand and supply side?
2. What is the value of a unique ID system?
3. Business Case for Banks: How is the 2% government commission broken up via cost to bank, BC, and last mile agent?
4. What is the experience of recipients? Why are millions of payment bank accounts not being used?
5. Is there a business case to provide financial services through G2P-linked accounts? What are the barriers?
6. Indigenous Peoples and Remote Areas: How an electronic payment system better serve hard-to-reach segments?

Context

The Government of Andhra Pradesh has invested in developing a unique ecosystem to deliver over \$1 billion worth of NREGA and SSP every year to 10 million beneficiaries. This ecosystem includes banks, post offices, business correspondent (BC) companies, customer service points (CSP), and community village organizations. The BCs are private companies appointed by banks, and CSPs are local women who are members of self-help groups (SHGs) and are recruited by BCs to deliver the payment. All payments are transferred directly into beneficiary accounts, which are categorized as a basic savings account. According to government reported data, in 2012-13, 67% of NREGA payments were delivered

electronically, and the remaining were done through a manual process. In the electronic system, the percentage of payments delivered within the stipulated two weeks was 25%, 60% within thirty days and the remaining 15% were delivered after thirty days.

There is a disbursement window each month of ten days for making payments. Pensions are paid during the first six days of the month, while NREGA payments vary according to work completed. During the payment window, the agent does over a hundred transactions per day. At the agent locations, there is no signage to indicate that the agent represents a bank, nor that banking transactions can be conducted there. Though the technology could easily be used for a wide range of services, agents are not trained or incentivized to deliver any service other than disbursements. Neither the agent nor the beneficiary views this to be a banking channel. For them it is a payment disbursement point and no other banking services are expected or delivered.

DEMAND SIDE FINDINGS

The demand side findings come from a quantitative survey of 2460 households in 12 districts and an ethnographic study of 18 villages in three districts. Both research methodologies aimed to understand the financial needs and uses of G2P beneficiaries and their interaction with agents and technology as a means of receiving their government payment.

During the agricultural lean season May-June, recipients have an average income of Rs 4600, out of which their expenditures amount to about Rs 4100. The average income from NREGA is Rs 2000 for those receiving wages under the scheme. Recipients use a range of formal and informal financial tools to manage their income and expenditure flows. In many cases, recipients had opened a number of accounts for a variety of subsidies and payments. Being a part of the SHG system allows many women to learn about saving in small amounts, maintaining books of accounts, and the process of applying for credit. This segment continues to use informal sources for credit, as well as chit funds for savings, which can be risky and unreliable.

EBT increases payment convenience by reducing the distance traveled by recipients from 1 km for manual payments to 0.57 km for electronic payments. However, there was a stark difference in the quality of service in tribal and non-tribal areas. While in most of AP, beneficiaries reported a high level of trust in the payments system, dissatisfaction in the tribal areas is much higher largely stemming from more erratic and unpredictable payment delivery. As described in more detail below, unreliability is mainly due to operational barriers linked to the lack of network connectivity and higher workloads for CSPs.

Recipients are largely unaware of the functionality of any account that is linked to their payment. Communication is not clear about when payments are credited and even how much they should be expecting. If there are delays, recipients tend not to understand the reason for them.

Technology, whether a smart card or mobile phone, is rarely a barrier to use for recipients, but this is largely because transactions are always mediated by the agent or others like the regional coordinators of the BC company. As a result, recipients are passive users of technology and they are not being empowered by independent access to the payment system.

Key Messages from Recipient Perspective

- Focus on clear and consistent communication: Recipients need to understand what the account is and the functionality it offers. They need to be informed when payments have been credited to their accounts, how much they should be expecting, and any reasons for possible delays. Provide branding and signals to the recipients indicating that the agent is part of the banking system. If they have access to a mobile phone, recipients should receive a text message when their account has been credited.
- Develop an effective grievance redress system: A grievance redress system, such as a call center helpline, should be introduced through which recipients can communicate directly to express any payment-related issues to the government.
- Establish a transparent policy for manual payments: Electronic payments will not be possible everywhere and technology failure should be acknowledged. A state-wide policy is needed to effectively handle carded-but-manual transactions.

TRIBAL AREAS FINDINGS

The tribal areas towards the north of Andhra Pradesh, such as Paderu and Araku, are heavily forested with dispersed habitations and clusters of households in remote, inaccessible areas. These areas have low connectivity, and often very poor populations for whom steady flows of social welfare payments can significantly help smooth consumption needs. Tribal societies on the whole have very strong knit communities that have devised informal finance mechanisms to smoothen erratic income flows. These areas mirror forested regions in neighboring states of Orissa, Maharashtra, Chattisgarh and Jharkhand. Hence innovations and lessons can have a valuable impact in other similar areas of India.

Ethnographic work across 7 villages in the tribal areas of AP revealed that one agent is often servicing 15-16 habitations. Recipients often have to wait for 3-4 months to receive their payments, and agents themselves are getting paid once in six months. Because of poor connectivity, a significantly high percentage of payments (estimated at 40-50%) are manual.

On the other hand, members of each household visit markets that serve several habitations once a week. These markets are lively, and often have moneylenders from nearby towns doing business. Integrating the G2P payment channel to leverage these robust local economies may lead to more reliability and trust in the system.

Key Messages from Agents and Recipients in Tribal Areas

- Instead of waiting for CSPs to visit them, recipients should have the choice of accessing their payments at touch points in weekly markets, for example, through retailer agents.
- Provide better supervision and support to the CSPs to deal with situations of technological failures and cash management problems. The ratio of CSPs to coordinators should be much lower for tribal areas. Training and better salary incentives should be prioritized for rural CSPs.
- Work on technological fixes such as introducing solar powered battery for POS machines that can run without access to electricity.

PROVIDER RESEARCH FINDINGS

The sample of providers included three bank-BC partnerships, one post office model, and one Aadhaar pilot. The research showed that for every Rs 100 that is disbursed by GoAP, the bank receives Rs 2 as a service fee. It costs the bank much more to deliver the payment, even in the two bank-BC models that are operating at scale¹. In one of the models, it costs the bank Rs 2.93, while the cost in another model was found to be Rs 2.65. The costs include account maintenance costs (derived to be Rs 25 per account per annum), payments to business correspondents and agents, technology costs, delay penalties², and other operating costs. The costs are net of revenue earned from float.

The business case for CSPs is weak. On average, the 26,000 women agents disbursing NREGA and pensions receive approximately Rs 1200 for about ten days of work. This is lower than the AP minimum wage rate of Rs 149 per day.

There continue to be manual overrides in an electronic system due to lack of connectivity and the inability for the system to authentic biometric information. Out of the four models studied, the post office has the lowest number of manual overrides. State reported data showed that the total number of manual payments is less than 10%, but fieldwork estimated that this number could be between 20-30% and higher in remote areas.

Department of Post

One of the models studied as part of the supply side research was that of the Department of Post in Chittoor district in southern Andhra Pradesh, as all NREGA and Pension payments are made through this channel. Since January 2013, the AP Department of Post, in partnership with their technology service provider AP Online, launched Aadhaar enabled payments. During the month of June 2013, 61% of the payments were happening through Aadhaar authentication. Data reported from AP Online in the months of June and July 2013 indicates a 51% success rate for Aadhaar based payments.

The Department of Post relies on branch post masters (BPMs) to distribute payments, and is able to leverage its existing cash management networks and small infrastructure like storage lockers to reduce the risk of moving hefty amounts of cash into rural areas. However, even though BPMs are spending 40% of their time on delivering these payments, they are not being adequately compensated for the extra workload on top of their other responsibilities. In this current model the cost to disburse Rs 100 is Rs 3.24.

As compared to the CSP, a BPM's profile is different. Usually, a BPM is a man in his forties with more than ten years of experience. The customers have to travel to his "office" to receive their payments or travel to a location that might be at their nearest *panchayat* office. However, a recipient is able to transact at multiple BPM or postal branches, which provides greater flexibility than many bank-BC models. In locations where a branch post office is not present, the postal channel appoints agents that carry out the disbursements. The agent also enjoys support of the postal channel's infrastructure. The incentives for

1. These two bank-BC models reach 750,000 beneficiaries through 1650 agents in two districts.

2. There is a delay penalty of 0.1% of the fee amount for every day of delay in disbursement for NREGA and for every day of delay in submitting disbursement reports with the government for SSP.

these agents are similar to those for agents in the bank-BC models. Through this hub and spoke model, the department of post can bring down their cost of disbursing to Rs 2.46 for every Rs 100.

Aadhaar (UIDAI) Pilot

In January 2013, a pilot was launched in East Godavari district involving 27,000 beneficiaries that used Aadhaar authentication instead of local biometric servers used by the BC companies. East Godavari district carried out the Aadhaar enrollment process efficiently by establishing permanent Aadhaar enrolment centers and implementing extensive information campaigns for recipients. Best Finger Detection (BFD) authentication helped to reduce the time taken for repeated attempts at authentication.

There was also some inefficiency in the Aadhaar system. At the end of each day CSPs have to do manual reconciliation based on NREGA acquittance receipts, as opposed to other models where reconciliation can be done on the POS machine itself. If there are no connectivity issues, all transaction data in the Aadhaar enabled system should be available through the NPCI switch which can enable the bank and the state to monitor payments in real time. But the research showed that the Aadhaar enrollment process has reduced leakages by eliminating duplicate and ghost recipients. The enrollment cost is lower, and once Aadhaar has reached universal scale, there is a potential shift in the business case for providers as they will save on the costs of smart cards and will not have to invest in locally held biometric databases.

Key Messages from Provider Perspective

- Increase the current service commission paid by the GoAP from 2% of the volume of payments to 3%, and 3.5% in remote areas to make the channel viable for banks and agents. Global trends on service commissions to banks are also converging at 3%. Of the amount passed on to banks, a minimum of 1% should be passed down to the agents at the front-end.
- To make this channel integrated with the financial inclusion mandate, incentivize banks and agents to offer financial services alongside government payments. Currently, a full disbursal mandate from the government requires that the beneficiary withdraws the entire amount. For every day of withdrawal delay the bank is penalized. The government can mandate authentication at the point of transaction to ensure accountability, but provide a choice to the beneficiary about whether they would like to leave small value deposits. In addition, the government could develop audit and feedback mechanisms that ensure complaints about last-mile channels reach the government immediately.
- Allow staggering of payments through the month so that the agent is not overburdened with transactions on a few days. Guarantee a certain amount of income, commensurate with her skills, to improve the quality of service.
- Authentication failure for the elderly is a common problem for EBT and DBT. Manual overrides are a common feature for this segment. A clear process should be defined for handling transactions with elderly beneficiaries.
- Until fiber optic connectivity connects all villages of India, a systematic manual process needs to be established in parallel to DBT, with effective monitoring and supervision at the village level, as well as grievance redress mechanisms that agents and recipients can use. Manual process should

only be conducted in the presence of a “checker”. Applications that can automate the manual process could be a useful tool for agents.

KEY LESSONS FOR ROLLING OUT ELECTRONIC TRANSFERS (DBT) ACROSS INDIA FROM ANDHRA PRADESH

Various departments at the state level are involved in implementing several cash transfer schemes. The government has built a unique skill set in the smart card and pensions unit at the state level, as well as a payments expert for every district to coordinate this activity. Beyond NREGA and SSP as the two major welfare schemes, there are a host of other schemes that are provided to state residents, such as scholarships, Arogya Shree, agricultural subsidies, etc.

Given this myriad of schemes and as DBT is rolled out in other states, there is a need to have a common touch point for providers, agents, and recipients at the state level for all payments. Leveraging the benefits of Aadhaar, an integrated payment gateway managed by a “DBT Cell” needs to be established that could maintain and merge databases of beneficiaries so that the state can monitor the type of payments made to the entire household. Maintaining separate accounts for every scheme is costly and inefficient for the Government. The cell will also provide support to providers and technology companies by synergizing efforts. It could potentially house a grievance redress call center for beneficiaries to express their complaints.

An Aadhaar enabled payments platform could enable an interoperable agent network across the country that could potentially carry out government payments but also offer financial services to the poor. Direct Benefit Transfers are an opportunity to enable financial inclusion, while increasing efficiency in how payments are made to the poor. However, a systematic roll out of the DBT scheme, in a phased manner, that provides an adequate business case for banks and agents, as well as a positive experience for the recipients is crucial for success. Recipients need to be treated as users of a DBT system.

While rolling out DBT in new states, integration at the state level and a high quality experience for users could be achieved through:

1. Develop an integrated payment architecture, managed by a DBT cell, at the state level. All payments and subsidies can be funneled through this channel to ensure state level efficiencies.
2. Ensure a business case for providers. There are several ways to enhance the business case as discussed above. DBT flows ensure a minimum level of incentive for the first three years (at 3%) and subsequently with an increase in financial services, government commission can be reduced to 2%.
3. For remote areas, a service commission of 3.5% is needed to make the process efficient.
4. Ensure payment touch points (through agents, retail shops, or kiosk banks) within fifteen minutes of walking distance that offer “any-day” access for payment, along with banking services to make small value deposits, withdrawals and payments.
5. Withdraw the mandate to do full disbursement, and allow beneficiaries to keep the funds in their accounts.
6. Make offline and manual processes transparent and supervised regularly.

Research Details

CGAP commissioned the following organizations to conduct this research:

- (a) MicroSave for the provider side research
- (b) IMRB Bangalore for the quantitative household survey
- (c) Quicksand for the ethnographic research

The research was coordinated and policy analysis was conducted by the CGAP team.

Quick Glossary of Terms

AP: Andhra Pradesh – a state in southern India

G2P: government-to-person payments

NREGA: National Rural Employment Guarantee Act – a workfare social protection program that guarantees 100 days of work to every Indian household, if desired

SSP: Social Security Pensions. This includes pensions to elderly, widows, disabled, and certain other livelihoods

SHG: Self-Help Groups – a women’s-only savings group system

SERP: Society for the Elimination of Rural Poverty - an organization to facilitate poverty reduction through social mobilization and improvement of livelihoods of rural poor in Andhra Pradesh

UIDAI: Unique Identification Authority of India – a project to provide every Indian resident with a Unique ID number known as *Aadhaar*

EBT: Electronic Benefit Transfer – the electronic payment system to pay social cash transfers

DBT: Direct Benefit Transfer – the electronic payment system build on the *Aadhaar* system to pay social cash transfers

CSP: customer service point – the equivalent of what other countries refer to as “agents”

BC: Business Correspondent – companies that manage networks of CSPs on behalf of banks

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