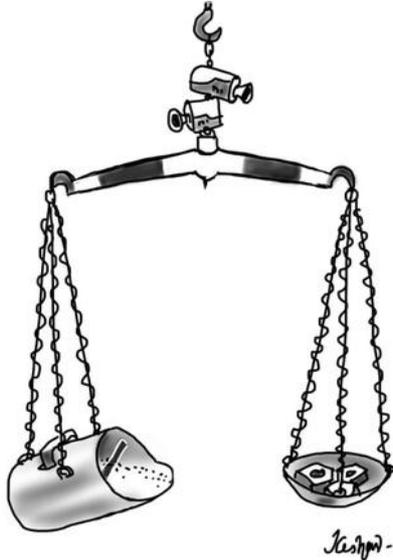


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Lessons from the East Godavari pilot

Reetika Khera



A computerised database of ration card holders and purchases is a safeguard against diversion of PDS supplies but the process can be disruptive for beneficiaries

The government has initiated an interesting pilot for the Public Distribution System (PDS) in East Godavari, Andhra Pradesh. When cardholders go to buy their PDS rations, their ration card number and UID (Unique Identification) number are punched into an “e-Point of Sale” (ePOS) machine. If the two match, they have to authenticate their fingerprint. If a successful authentication does not occur in five attempts, a mobile number can be entered, and a “one time password” (OTP) is sent to that number. After successful fingerprint authentication or use of the OTP, the sale can proceed.

Many firsts

There are many firsts (for Andhra Pradesh) in this pilot. One, a computerised database of ration cardholders makes it possible to track purchases. Chhattisgarh and Tamil Nadu have been the pioneers in this and other States are working on it. Two, the e-POS machine, a hand-held mini-computer, has made end-to-end computerisation a reality. Further, it has neat features such as a voice-over facility (it calls out the commodity, quantity, prices and sale amount) and receipt printing device. These are important safeguards against cheating, especially the voice-over for those who cannot read or calculate easily. Three, biometric authentication has introduced a mechanism for “last mile tracking” previously absent in Andhra Pradesh. Four, authentication is done in real time, using the UID platform (a first in the country).

Last mile tracking is any mechanism that allows the government to get information on whether grain has reached the beneficiary (and not just the ration shop). Until recently, tracking mechanisms were weak or non-existent, making diversion of PDS grain relatively easy. Entries in ration cards (supposedly checked by government functionaries) were the commonly used method. In Rajasthan and Bihar, food coupons serve the same purpose — the release of grain to a dealer is linked to the number of coupons he deposits after collecting them from cardholders when they buy their rations. Recent reports suggest that food coupons work relatively well in Rajasthan, but not in Bihar. Elsewhere, “smart cards” to be swiped on ePOS machines are being piloted. The East Godavari pilot uses online biometric authentication.

The East Godavari pilot has taken off largely due to the patient efforts of a dedicated Joint Collector. He was assisted by a full staff of functionaries — each Mandal (equivalent to, but smaller than, a Block) has a supply officer and a Tehsildar (Civil Supplies). Preparations took nearly two years — between December 2010 and December 2012, UID numbers were issued to 82 per cent of the population. This increased to 98 per cent by January 2013 after a special request was made to UIDAI. The Joint Collector described the operation being carried out in “mission mode” with a “war room” whereby a “control room had been set up to track enrolments and the seeding process.” The pilot began with 47 ration shops in September 2012, and was scaled up to 100 ration shops in January 2013. Thus after two years of dedicated

effort, the pilot was running in less than five per cent of the ration shops of the district.

Many hiccups were anticipated, and solutions were put in place, such as the OTP facility to deal with failures of biometric authentication, particularly common with the elderly. The solutions, however, are not fool-proof. In Pedabrahmadevam (Samalkota Mandal), biometric authentication failed for two elderly widows, Thotakura Ratnam and Thotakura Suryakantam, who were nearly in tears when I visited them. Koppusetti Mangayamma, an elderly Antyodaya card holder, had to make four trips to get her ration. Between September and January, 16-18 per cent of all transactions were through OTP or manual override. Other problems that needed to be resolved included data entry errors of UID and/or ration card numbers, incorrect matching of UID with ration card numbers, inability of some people to come to the ration shop, etc.

A range of unexpected situations also arose. I met people who had not enrolled for, or not got, UID numbers or whose UID number had not been seeded. Chikkala Rajeswararao's family is correctly reflected as a four-member household in the paper records, but the ePOS shows only one family member. As the Andhra Pradesh PDS issues grain on a per capita basis, he was getting only 4 kg instead of 16 kg. In Kothapalli, a PDS outlet was closed because the machine had been taken to Kakinada for repairs. There was no fallback option.

Heart-rending

The most heart-rending case was that of Jyothi Alamadamu (Gollaprolu Mandal). A tribal resident of the Sweeper Colony, she works as a maid. She broke into tears as she described her difficult situation: her three-year old twins were starving because in January, the e-POS did not recognise her ration card number. She had not been able to buy her ration.

The purpose of listing these issues is not to find fault with the pilot, but to convey the inevitable difficulties that are bound to arise with any transition to a new system even when it is implemented with the utmost care and detailed planning. Some elements of the pilot (like integrating the UID and PDS databases) are extremely demanding in terms of personnel, planning, time and technology. In this case, one could count on a responsive administration to try to remedy the issues but such responsiveness is not the rule.

For the government, there are two possible gains from the new system: saving grain that was earlier diverted and de-duplication. Outright cheating in Andhra Pradesh is unusual. Unclaimed ration (due to temporary migration) cannot be carried over. So dealers diverted it. With last mile biometric tracking, such diversion is not possible. If the carryover of one month's quota to the next is allowed, it can end the diversion of unclaimed grain. Other technologically less demanding last mile tracking methods such as food coupons and smart cards are also available.

Biometric authentication makes way for de-duplication, i.e., eliminating "duplicates" and "ghosts" from the PDS database. In East Godavari, most "ghosts" and "duplicates" were detected during a door-to-door survey, not through biometric de-duplication. As per the data given by the district administration, 6.6 per cent duplicates (including temporary migrants) were removed. If we do not consider temporary migrants (e.g. those travelling to attend a marriage) as duplicates, the figure is smaller. To the extent that duplication is a significant issue in the PDS, de-duplication requires biometrics — local rather than UID-enabled biometrics would work equally well. In fact, local biometrics has several advantages over UID — it does not require connectivity and allows errors to be corrected locally, which makes it more practical.

From the point of view of cardholders, the increase in queuing time has caused impatience and irritation. In Chendurthi village (Gollaprolu Mandal), Kakadalakshmi said "what is the point of giving Re 1/kg rice if we have to forego Rs. 200 of wages in the bargain?" In my brief visit to five Mandals, I did not come across any ration cardholder who enthusiastically preferred the new system to the old. Most were indifferent, and a few complained.

Of the four features of the East Godavari pilot listed earlier, computerisation and ePOS machines are excellent initiatives, suitable for scaling up and testing elsewhere too. If anything, computerisation of the PDS has been put off for too long. As far as last mile tracking and de-duplication are concerned, the option being used in East Godavari — real-time UID-based authentication — imposes large costs (enrolment, seeding, machines, updating the database, connectivity, repairs). The government should initiate pilots to test alternatives — wall paintings or local biometrics for de-duplication; food coupons, smart cards and local biometrics for last mile tracking. Each of the alternatives seems administratively and technologically less demanding and, most importantly, less disruptive. The unique circumstances which make the East Godavari pilot successful in five per cent of its ration shops may not be easily — or at all — replicable elsewhere in the country.

(Reetika Khera teaches economics at the Indian Institute of Technology, Delhi)

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