Will the JAM Trinity Dismantle the PDS?

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The platform known as JAM Trinity (an acronym for Jan Dhan Yojana, Aadhaar, and mobile numbers) may enable a shift from the current Public Distribution System, based on price subsidies, to the direct transfer of benefits. Yet, it is incorrect to argue that JAM technologies will necessarily lead to the demise of the PDS. State-level experiences of computerisation, recounted here, reveal that the same technologies can actually be tailored to improve the PDS, by contributing to reduce the problem of leakage that affects it.

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The uptake of information technologies (IT) for poverty reduction, a global trend since the mid-1990s, has recently been greatly popularized in India. Technology is conceived, in particular, as a fix to anti-poverty programmes, whose malfunctioning severely affects poorer people's capabilities to access their entitlements. In the Public Distribution System (PDS), the core problem is that of leakage, which affects the supply chain and deprives beneficiaries of the subsidized goods reserved for them. Given the depth of leakage on a national scale (Gulati and Saini 2015), a move from the PDS to direct transfer of benefits, which would curb illegal diversion, is being framed as a quite likely policy change.

The platform known as JAM trinity, resulting from three different systems (Jan Dhan Yojana, Aadhaar, and mobile numbers), has been devised to enable this policy shift. That technology can act towards the improvement of public governance is well-known (Bhatnagar 2004), but in this case we are witnessing a more radical move: technology is not there to improve existing mechanisms, but to enact deep modifications in anti-poverty policy. As the last Economic Survey (Government of India 2015) reveals, the combination of Jan Dhan's bank accounts, Aadhaar's unique identification, and mobile phone usage has the purpose of rebuilding the social safety system, substituting price subsidies with direct transfers to users. By doing so, the market distortions induced by subsidies would be minimised, as well as the leakage that affects the PDS supply chains across the nation.

Alongside economic justifications, reasons for preoccupation towards this move have already been discussed here (Sinha 2015; Drèze and Khera 2015). However, as a scholar of IT for poverty reduction, my contribution has a different gist. What I argue, based on experiences of PDS digitalisation that I have observed in south India, is that the association between JAM and destruction of the PDS is incorrect, and in fact the relation can be flowing in the opposite direction too. If inscribed in an anti-leakage policy framework, the very same technologies can actually combat the illegal diversion of goods, and strengthen the present food security system instead of dismantling it at its very basis.

JAM and the Shift to Cash Transfers

That the JAM trinity is meant to prepare a shift from subsidies to cash transfers, and therefore enable a new national anti-poverty mechanism, is no mystery in the current policy debate. The system is

openly framed as a tool to tackle market distortions and leaking supply chains, and its composite anatomy is aimed to fit exactly this purpose. The three components of the JAM platform could, indeed, be seen in isolation from each other: however each of them, in the light of anti-poverty mechanisms, acquires a precise and finalistic meaning.

To understand that, it is sufficient to project the three JAM technologies on social safety nets in India today. Jan Dhan Yojana aims at providing each household with a bank account, which will be the backbone infrastructure to transfer benefits to those entitled. Aadhaar, while the Supreme Court stated it cannot be made compulsory for social safety access, is still a valid option to enable targeting of benefits and users' access to bank accounts. Finally, mobile numbers can have many uses in social safety nets, ranging from notifications of bank transfers to systems of information provision and grievance redressal.

True, all three systems have their own life cycle, and can possibly work without being integrated with the other components of the trinity. More specifically, Jan Dhan is a financial inclusion programme, and the reform of the anti-poverty system is only one of its many objectives. Aadhaar was a flagship scheme of the previous UPA government, and was most surely not created for the present NDA's anti-poverty agenda – but still it has been adapted to it, and the suggestion of linking Aadhaar to bank accounts was openly made in the last Economic Survey. Mobile technologies, whose ownership has increased spectacularly over the last decade, have yielded multiple impacts on people's lives: their multipurpose nature makes them pliable to cash transfers in diverse ways, the most evident being that of enabling transfers through mobile money.

As a result, taken together, the three JAM technologies form a full composite unit, built with the purpose of shifting from subsidies to the direct transfer of benefits. This has been corroborated by findings on the depth and pervasiveness of PDS leakage across the nation,[1] which makes it difficult for many beneficiaries to access their entitlements in a regular way. The parlance on a shift to cash transfers, which used to be constructed in hypothetical terms, is now taking the shape of actual policy prescriptions: the JAM infrastructure has been framed as a means to support this change.#

Alternative Uses of JAM: Aadhaar and the Fight to the Rice Mafia

An important question is the following: is the commonly conceived use of JAM the only possible one? Or can technology be tailored to different purposes, for example to *preserve* the existing anti-poverty mechanisms? India already features cases recognised as best practice in PDS computerisation, such as those of Chhattisgarh and Gujarat (Justice Wadhwa Committee, 2011).[2] Adding to these, it is important to look at progress made by states that are still digitalising their PDS, two of which are illustrated below.

Kerala has formally started digitisation of PDS user details back in 2001. The state is renowned for a *sui generis* PDS history, featuring a previously excellent distribution network, which was severely hit by the move to a targeted system in 1997 (Suchitra 2004). As a result of the massive shift of APL households away from the PDS, ration shops' viability has been severely affected (Krishnakumar 2000). This, adding to the incentive to diversion caused by price duality, has made corruption (popularly known as "rice mafia") particularly attractive for the systems' actors, and monitoring the programme's supply chain has become a matter of priority for the state.

How has supply chain monitoring been designed? Kerala's Targeted, Efficient, Transparent Rationing and Allocation Public Distribution System (TETRAPDS) was built as a three-module scheme, mirroring Chhattisgarh's idea of end-to-end computerisation. A Ration Card Management System (RCMS), aimed at speeding up ration card processes, was combined with two more modules: a back-

end one, known as Allocation 2.0, would allocate commodities to ration shops based on theoretical requirement. A third module, known as an Inspection Monitoring System, would track all the inspections conducted in the ration shops (NIC Kerala 2010). Albeit implementation has only been partial, the programme reflects the idea of utilising information systems to preserve PDS integrity.

Furthermore, in a pilot project run in Trivandrum in 2013, Aadhaar-based identification was used to directly enable sales in the ration shops.[3] Through Aadhaar-based point-of-sale machines, the project would enable a twofold mechanism: first, it ensured that sales would be to entitled beneficiaries, using fingerprint identification to curb the problem of bogus ration cards (Anand 2013). Second, it would prevent ration dealers from selling commodities outside the PDS, hence attacking the core mechanism of the rice mafia networks. The project has remained at a pilot stage so far: furthermore, as it is now forbidden to make Aadhaar compulsory for access to the PDS, its evolution would need a different form of users' identification.

Kerala's back-end system, as well as the efforts towards an Aadhaar-based PDS, have not yet enabled the state to reach the best practice needed for replication. But still, this state's experience is paradigmatic of how the core component of the JAM trinity can be inscribed in an alternative policy framework, in which the fight to illegal diversion of PDS goods is the core aim. The idea advanced by Kerala, and sustained by its policy prescriptions, is that of making Aadhaar instrumental to revitalisation of the PDS, rather than to its substitution with a system of cash transfers.

Computerising Ration Shops: A Biometric Interface

What in Kerala has been framed as a pilot project, in the neighbouring Karnataka has already been scaled up to six districts, albeit coverage of the system is still partial. In a set of ration shops across the state, the sale of PDS goods has been transformed radically: a weighing-cum-point of sale machine (produced by a private company, Essae Teraoka) recognizes citizens' fingerprints, associated to their poverty status by an existing database. In this case, the ban on Aadhaar for social safety nets was dealt with by a state-led project of biometric registration. The machines are also meant to hold the ration dealers accountable, ensuring that they sell exactly what is due to beneficiaries – speakers announce, in Kannada, the amount of goods sold at each transaction.[4]

Furthermore, in Karnataka, mobile numbers are leveraged to enhance citizens' monitoring. The National Informatics Centre (NIC) has indeed devised a mobile service for communication between the wholesale points, from which ration dealers lift PDS goods, and elected representatives of citizens' groups. Since 2013, panchayats are registered with a service of SMS alerts: these should be automatically sent to them every time one of the local ration dealers lifts their foodgrains from the wholesale point. Awareness of the mobile system, while still limited, is being promoted actively across the state: this needs to be seen in completion to diverse mobile-based initiatives, utilised across the nation to enhance PDS monitoring.

Now, it should be noted that technology – as many studies already reveal – is no panacea for the improvement of anti-poverty mechanisms, and that context matters highly in its implementation. In particular, systems based on Aadhaar (or biometric devices at large) and mobiles do not necessarily curb ration dealers' incentives to indulge in corruption, since they do not affect the persisting problem of unviability of ration shops (Khera 2011). But the point, emerging from these cases, is that the fight to PDS leakage, in states committed to this objective, is still very real: technology can be tailored as a means towards this fight, rather than as a tool leading to demise of the PDS. Viewed in more political terms, its adoption can be framed as a sign of governments' willingness to engage in combating the diversion of goods.

JAM and the Reinforcement of PDS?

As shown by recent comparative studies, states enacting proper PDS reforms have experienced significant improvements of systems' functioning, and substantial reductions of the poverty gap index (Himanshu 2013; Drèze and Khera 2013). Empirical data suggest that PDS reform can be a viable alternative to deconstruction, especially when the problem of leakage is tackled from its root causes. And yet, in the debate on PDS reform vs. substitution with direct transfers, the tools of the JAM trinity tend to be perceived as a means to the latter, as if that was the only suitable purpose of their usage.

Through the cases recounted here, I illustrate a different perspective, in which the same technologies are recombined to serve exactly the opposite aim. I therefore submit that the JAM trinity should not be classified as a means to dismantle the PDS, as commentators have too quickly framed it. Technology acquires its purpose in the hands of policymakers, and the very same JAM tools can be paramount in the fight to the diversion that largely causes leakage: they can therefore serve as means for strengthening the PDS, rather than dismantling it. The route of reform, if inscribed in adequate policy frameworks, may lead to best practice in reducing illegal diversion.

What route shall be taken, and how it shall be adjusted to the needs of the millions of Indian poor entitled to the PDS, will be crucial choices in this historical phase. But whatever policy decision is made, the role of JAM technologies in fighting leakage from the PDS should be recognised in its full potential.

References

Anand, George. (2013): "Biometric Ration Cards in State Soon", The Hindu, October 20th, Thiruvananthapuram.

Bhatnagar, Subhash (2004): *E-Government: From Vision to Implementation - A Practical Guide with Case Studies*, Sage: India.

Drèze, Jean, and Khera, Reetika (2013): "Rural Poverty and the Public Distribution System", Working paper no. 235, Centre for Development Economics, Delhi School of Economics.

Drèze, Jean, and Khera, Reetika (2015): "Understanding Leakages in the Public Distribution System", *Economic & Political Weekly*, Vol 50, No 7, pp 39-42.

Government of India (2015): *Economic Survey*, Department of Economic Affairs, Ministry of Finance, Government of India, New Delhi.

Gulati, Ashok, and Saini, Shweta (2015): "Leakages from Public Distribution System (PDS) and the Way Forward", Working Paper 294, Indian Council for Research on International Relations, New Delhi.

Justice Wadhwa Committee (2011): *Report on PDS*, Central Vigilance Committee on the Public Distribution System, New Delhi.

Khera, Reetika (2011): "The UID project and Welfare Schemes", *Economic & Political Weekly*, Vol 46, No 9, pp 38-44.

Krishnakumar, R. (2000): "Public Distribution System: A System in Peril", *Frontline*, Vol 17, No 19, pp 16-29.

Himanshu (2013): "PDS: A Story of Changing States", *Live Mint*, 7th August 2013.

Masiero, Silvia, and Prakash, Amit (2015): "The Politics of Anti-Poverty Artefacts: Lessons From the Computerisation of the Food Security System in Karnataka". Proceedings of the 7th Conference on ICT for Development, Nanyang Technological University (Singapore), 15th-18th May 2015.

Mishra, Parivesh (2015): "Scam Stains Famed Chhattisgarh PDS, Systemic Loot Runs into Crores". First Post, 18th March 2015.

National Informatics Centre (NIC) Kerala (2010): "Targeted, Efficient, Transparent rationing and Allocation Public Distribution System", http://www.nic.in/projects/tetrapds.

Sinha, Dipa (2015): "Cash for Food - A Misplaced Idea", *Economic & Political Weekly*, Vol 50, No 16, pp 17-20.

Suchitra, M. (2004): "Undermining a fine Public Distribution System in Kerala", Policy Brief at India Together, http://www.indiatogether.org/2004/jan/pov-keralapds.htm.

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[1] Both Gulati and Saini (2015) and Drèze and Khera (2015) arrive at estimates of leakage as deep and pervasive, though the authors disagree on the estimated size of leakage and policy prescriptions based on it.

[2] There is no doubt that the recent rice scam, and its public resonance, has affected the reputation of Chhattisgarh's PDS (Mishra 2015). However, glancing at the history of PDS evolution, the state still displays remarkable results on reduction of leakage through digitalisation.

[3] This project was built on India's first documented experience of Aadhaar-based PDS, piloted in 2012 in the East Godavari district, Andhra Pradesh.

[4] In a recent study, instances of misuse of the machines were found, and the staff at Essae Teraoka was in the process of adapting the technology to minimise tamperability (Masiero and Prakash 2015).