No Genie At Your Fingertips

Aadhaar biometrics will now enable cashless shopping sans card and smartphone. A look at the hopes and fears.

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Soon, you will be able to pay for your groceries and other purchased goods by using just your fingerprints and biometric data. You won¢t need debit or credit cards, smartphones or e-wallets. You won¢t need to sign or even remember your PIN.

In a bid to increase digitisation and move to the next phase of ÷cashless Indiaø, the government is preparing to launch Aadhaar Pay, an initiative that will supersede the need to use credit cards, debit cards, smartphones and PINs to make payments or transfer money. The proposed system of payments will use a person¢s biometric data and fingerprints to make payments through Aadhaar-linked bank accounts.

The initiative, which has been running as a pilot project in fair price shops in Andhra Pradesh, is expected to be launched in a month¢s time. According to officials of the Unique Identification Authority of India (UIDAI), the system has been getting a positive response in these trials and is ready for a nationwide launch.

In Aadhaar Pay, all a person needs to carry to a shop are his fingerprints as merchant establishments will authenticate his or her identity through fingerprints, which will give them access to a person's Aadhaar data. The only essential requirement for this new mode of payments is that bank accounts have to be linked with the account-holder's Aadhaar number.

Unlike the post-demonetisation limits imposed on ATM and bank account withdrawals, no limits are proposed to be put on Aadhaar Pay transactions as of now. The proposal is to leave the fixing of limits to the discretion of banks. However, the government hopes Aadhaar Pay will be used mostly for small-value transactions rather than large deals.

The system will work through an app in the merchant establishment's smartphone— with a fingerprint scanner device— eliminating the requirement of a Point of Sale (POS) terminal, which is required for credit card and debit card transactions. The scanner will be priced at around Rs 2,000, considerably cheaper than POS terminals that cost Rs 8,000-10,000.

Aadhaar Pay is being launched even as digital payments have seen a fall since last December, showing cash is still preferred.
Aadhaar Pay is the next step of the government's successful run of Aadhaar Enabled Payment System (AEPS), under which transactions are made through 'banking correspondents', mostly in rural areas. These transactions are done through POS machines and micro-ATMs. Like Aadhaar Pay, AEPS disburses money without a signature or a debit or credit card, and without the need to visit a bank branch. But unlike AEPS, which works through banking correspondents, Aadhaar Pay will be available through merchant establishments much the same way as debit or credit cards work.

The biggest task before the government to ensure the success of Aadhaar Pay is to develop a network of merchant establishments that will accept Aadhaar Pay just the way they accept credit or debit cards or e-wallet payments like Paytm. To do this, the government said in this year's budget that banks would be encouraged to put 20 lakh Aadhaar Pay access machines across the country. "We have asked every bank to select 35 merchants for this. These merchants will have a smartphone and a biometric device attachment to carry out Aadhaar Pay transactions," UIDAI CEO Ajay Bhushan Pandey tells Outlook.

This won∅t be easy. Even in case of debit or credit cards, the biggest limiting factor is the relatively small number of POS terminals that accept them. According to data from the National Payment Corporation of India (NPCI), there are only 14 lakh POS terminals in India, which has over 3.5-4 crore merchant establishments and 80 crore cards (77 crore debit cards and three crore credit cards). The bulk of these terminals are in tier I and tier II cities and almost none in tier III and IV towns. To improve the situation, the government is already working towards bringing in 10 lakh new terminals by March, most of which will be put in tier III and tier IV towns, bringing them deeper within the ambit of the digitised, cashless economy.

Though a starting target of 20 lakh terminals for Aadhaar Pay may seem quite ambitious, according to the latest data, 111.51 crore adults have already obtained their Aadhaar numbers and 50 crore bank accounts (of a total 110 crore savings accounts in the country) of 40 crore people have been linked to Aadhaar and, according to UIDAI, nearly two crore people are linking their bank accounts with Aadhaar every month, brightening up the prospects of Aadhaar Pay. A majority of these numbers are from rural areas and smaller cities.

The government and UIDAI aim to roll out Aadhaar Pay primarily in rural areas and tier III and tier IV cities to begin with, as these areas do not have proper debit or credit card coverage and the people living there are not big users of plastic cards or smartphones. õWe need to provide a solution for every segment of the - population,ö says Pandey. õWe have to take care of the people who cannot use smartphones or other mobile phones and debit or credit cards, and those who cannot remember their PIN for authentication. The only tool with them is their fingerprint. Approximately 30 crore people are not comfortable with cards or phone. We had to get them into the mode of digital payments.ö

Not surprisingly, critics of Aadhaar and Aadhaar-based services have attacked Aadhaar Pay and AEPS on issues of privacy and security of biometric and personal data. Pranesh Prakash, policy director with the Centre for Internet and Society (CIS), recently tweeted, õAs long as AEPS encourages biometric authorisation of transactions, it is bound to be a security nightmare, with widespread fraud.ö Would you tell a shopkeeper your debit card∅s PIN? No. Then why share your fingerprint? A fingerprint, in this system, becomes a kind of unchangeable PIN, he asks.

Pointing out a possible danger, Usha Ramanathan, an independent law researcher who has been following Aadhaar since its inception, says, õIn many payments, biometric data is authenticated and then it remains in the system where there are leakages. Intermediaries then have access to the data, which is thus made insecure.ö

According to the UIDAI, however, once biometric data is provided by the consumer while making Aadhaar-based payments, it gets encrypted and a merchant doesnøt get access to that data. The Aadhaar Act also prohibits any storing of biometric data in local devices. And yet, there are many like CIS executive director Sunil Abraham who believe it is a mistake to use biometrics for authentication, especially when payments are concerned. õOur concern with Aadhaar Pay is about the biometric component of the project,ö says Abraham. õBiometrics is an identification technology. Unfortunately, it is being presented as an authentication technology. It is not a secure authentication technology as biometric data can be stolen easily. It is also irrevocable; once biometric data is stolen, it cannot be re-issued like a smart card.ö

Then there is the problem of availability of fingerprints. In the case of many people from rural areas and the working class, fingerprints get affected due to the manual nature of their work. This makes it difficult for this target group of UIDAI to conduct transactions properly through Aadhaar Pay. õIn Rajasthan, 30 per cent of the households are not even able to procure ration using fingerprints,ö says Ramanathan.

The launch of Aadhar Pay at this time becomes more challenging as there has been a decline in digital payments this January. According to RBI data, digital payments, including transactions made by using credit cards, debit cards, electronic fund transfers, digital wallets and mobile banking transactions, were 10.2 per cent lower by volume and 7 per cent lower by value in January 2017 as compared to December 2016. Also, digital transactions fell from 1,027.7 million (worth Rs 105.4 lakh crore) to 922.9 million (worth Rs 98 lakh crore). This could get worse as the RBI raised the cash withdrawal limits from Rs 24,000 to Rs 50,000 from February 20 and aims to remove all limits by mid-March.

Within digital transactions, debit and credit transactions at POS terminals declined 18.6 per cent month-on-month in January, while mobile banking transactions declined by 7.6 per cent, showing that people still prefer to deal in cash. According

to NPCI data, however, IMPS transactions rose by 18 per cent in January and UPI-based transactions went up from 2 million transactions (worth Rs 700 crore) in December to 4.2 million transactions (worth Rs 1,666 crore) in January.

Clearly, considering India's demography and its problems, when it comes to the security of personal and biometric data, the government and the UIDAI have many issues to clear before Aadhaar Pay can achieve any success. Moreover, there are over 100 crore mobile phones in India today, with even the lowest strata of the population having access to one. Yet mobile-based payments and m-wallets are yet to hit that critical mass. To make Aadhaar Pay a bigger success than that could be a gigantic task.