AEPS (Aadhaar Enabled Payment System) – Is it really safe?

AEPS or Aadhaar enabled Payment System is a secured payment method provided by the National Payments Corporation of India (NPCI) that allows Aadhaar linked bank account holders to seamlessly make financial transactions through Aadhaar-based authentication.

It is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale / Micro ATM) through the Business Correspondent using the Aadhaar authentication. The App (Available in Google Play) AepsPe enables Merchants to receive digital payments from customers over the counter through Aadhaar Authentication

BANKIT is the AEPS service provider company with a platform for Aadhaar Payment system. Customers simply need to tell BANKIT Retailer their 12-digit Aadhaar number and Aadhaar linked Bank name. Instead of a debit/credit card PIN, the merchant will have to key in the customer's Aadhaar number and authenticate the transaction using the customer's biometric data. Fingerprint authorization is done using a biometric device to avail the service.

Necessary conditions for AEPS service initiation:
- o Handheld Device with card and /or bio-metric reader
- o Merchant Bank a/c
- o Internet connectivity GPRS/ Landline

How does AEPS work ?
- o Step 1: Go to a micro ATM or banking correspondent
- o Step 2: Provide Aadhaar number and bank name
- o Step 3: Choose the type of transaction you want to make
- o Step 4: Provide verification through fingerprint/iris scan
- o Step 5: Collect your receipt

POINT OF SALE
A point of sale (PoS) is the place where sales are made. A PoS can be a mall, a market or a retail shop where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

MICRO ATM
Micro ATM is a device connected to banks across the country. This device is based on a mobile phone connection and is available at PoS. Customers would just have to get their identity authenticated and withdraw or put money into their bank accounts. This money comes from the cash drawer of the Business Correspondent. Essentially, Business Correspondents act as bank for the customers and all they need to do is verify the authenticity of customer using customers' UID.

Though it was believed that AEPS or Aadhaar enabled Payment System is a secured payment gateway, but with the arrest of a hacker it is feared that Linking Aadhaar to bank account is the latest threat. This revelation came after the Noida police arrested the mastermind behind fingerprint cloning and withdrawing money via AEPS.

Investigation by the Noida Police revealed that the hacker had allegedly stolen the Aadhaar numbers and the fingerprints of his victims from the registrar office, and made clones of the thumb impressions. After getting the Aadhaar number and the cloned fingerprint, the hacker

eventually withdrawn the money via Aadhaar Enabled Payment System (AEPS) and used this money to buy crypto currency to remain untracked.

A major setback for the AEPS is that, only fingerprint and Aadhaar number is required for transaction through this mode, and the customer does not receive any OTP (One Time Password), which is mandatory for any card-based payment. If two-factor authentication can be followed for such transactions, that will increase the security and it would become difficult to bypass two-layer of security.

According to a senior IT official in a leading bank, the AEPS is activated by default if a customers' bank account is linked with Aadhaar. Banking experts suggest that using of face recognition and retina scan for payment rather than that of using fingerprints is a safer way, as they are tough to replicate.

REF:
https://www.bankit.in/products-n-services/aadhar-enabled-payment-system
https://www.bankbazaar.com/ifsc/aadhaar-enabled-payment-system-aeps.html
https://www.npci.org.in/product-overview/aeps-product-overview
http://cashlessindia.gov.in/micro_atms.html
https://play.google.com/store/apps/details?id=com.PeAepsApp&hl=en_US&gl=US
https://www.amarujala.com/delhi-ncr/noida/a-fraudster-of-crores-arrested-with-fingerprint-clone-noida-news-noi5429888174
https://navbharattimes.indiatimes.com/state/uttar-pradesh/noida/thief-arrested-for-cloning-thumb-in-noida/articleshow/78702066.cms
https://pledgetimes.com/noida-if-a-job-was-lost-in-lockdown-it-became-a-thug-cloning-the-thumb-and-emptying-the-account/
https://www.eastmojo.com/national/2020/10/18/linking-adhaar-to-bank-account-is-the-latest-threat-hacker-arrested-in-noida
http://arlivenews.com/2020/10/16/police-arrest-thumb-cloning-fraud-case-in-noida/
http://newsmobile.in/articles/2020/10/17/noida-hacker-arrested-for-cloning-fingerprints-using-them-to-steal-money/