# **ROLE OF UIDAI IN FINANCIAL INCLUSION**

<u>Naveen Kumar.H\*</u> <u>S.J.Manjunath\*\*</u> <u>Arun Kumar.G\*</u>

### ABSTRACT:

The extent of financial exclusion is acute in india.Presently almost half of the population is unbanked.Financial service is one of the most important requirements for the current excluded segment, one of the key objectives of constitute UIDAI is to extend the delivery of financial services to the currently excluded.UID plays a key role in the financial inclusion by providing national portability of identity of migrant populationwhich would give them access to basic services such as banking and telecom services..UIDAI has partnered with various stakeholders including RBI, a National Payments Corporation of India, IBA and banks to develop for financial inclusion. Financial inclusion is expected to be a key application of Aadhaar authentication. Adoption of Aadhaar and Aadhaar authentication in the Indian banking system is expected to change the financial landscape of the country.

**KEY WORDS:** Aadhaar, Aadhaar authentication, excluded, financial services, stakeholders, uidai

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

<sup>&</sup>lt;sup>\*</sup> Research Scholar, MBA Department, BIMS, University of Mysore, Mysore.

<sup>\*\*</sup> Associate Professor, MBA Department, BIMS, University of Mysore, Mysore.

# INTRODUCTION

The Unique Identification number (UID), which identifies individuals uniquely on the basis of their demographic information and biometrics will give individuals the means to clearly establish their identity to public and private agencies across the country. The UID can help poor residents easily establish their identity to banks. As a result, banks will be able to scale up their branchless banking deployments and reach out to a wider population at lower cost. An efficient, cost effective payment solution is a dire necessity for promoting financial inclusion. The UID number and the accompanying authentication mechanism coupled with the rudimentary technology application can provide the desired micropayment solution. This can bring low-cost access to financial services to everyone, a short distance from their homes.

WHAT IS AADHAAR IS	WHAT AADHAR ISNT
A number OF (12 digit)	➢ Another card
For every individual, including infants	➢ One per family
Enables identification, and for every resident	<ul> <li>Establishes citizenship only for indians</li> </ul>
Will collect demographic and biometric	Will collect profiling information such
information to establish uniqueness of individual	as cast, religion, language
<ul> <li>For every resident irrespective of existing document</li> </ul>	<ul> <li>Only for individuals who possess identification document</li> </ul>
➢ Voluntary	Mandatory
Each individual will be given a unique	Individuals can obtained multiples
ID number	AADHAAR
<ul> <li>UIDAI universal identification like ration card, pass port can be used</li> </ul>	AADHAARs replaces all the IDs
➢ UIDAI will give "Yes" or "No" for	<ul><li>UIDAI will be access able to public and</li></ul>
any identification Authentication	private agencies
queries	

SOURCE:UIDAI

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us What Aadhaar Authentication will do and will not do

What Aadhaar Authentication will do	What Aadhaar Authentication will not do
Authenticate against resident's data in	Authenticate against data stored on a
UIDAI's CIDR	smart card
Return responses to agencies "Yes "or	Return personal identity information of
"No"	residents
Initiate request for mobile network,	Remain restricted to boars band
landline network and board band	network
network	
Require Aadhaar for every	Search for Aadhaar based on details
authentication request reducing	provided requiring 1:N match
transaction to 1:1 match	
SOURCE:UIDAI	

### DOURCE.OID/M

### What Are the Expected Benefits of Aadhaar Authentication?

### A. Establishing Identity:

- Adding new beneficiaries Aadhaar authentication can be used as proof of identity and proof of address to extend basic social welfare programs such as PDS & RSBY to residents. It would also give residents access to social levellers such as banking & telecom which they have so far been denied for want of identity proof.
- **Confirming beneficiary** Aadhaar authentication can be used for various programs where beneficiaries need to be confirmed before delivery of the service can use. This will help curb leakages and ensure that the targeted beneficiary is not denied entitlement.
- Attendance management Programs such as SSA and NREGA where financial outlay is linked to beneficiary attendance can use Aadhaar authentication for attendance tracking.
- **Financial transactions** -One of the biggest benefits of Aadhaar-based authentication is expected to be in the financial inclusion segment. Micro-ATM devices using Aadhaar

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Cage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us



<u>ISSN: 2249-0558</u>

authentication have the prospective of changing the financial landscape of the country.

• Access control -Aadhaar authentication could be used to control access/entry to restricted areas such as airports, hotels, examination halls etc.

## **B. Improving Efficiency & Transparency in Service Delivery**

- **Track end-to-end service delivery process** -Aadhaar authentication if implemented across the service delivery process / supply chain will help curb leakages and diversions, and help identify bottlenecks in delivering.
- Demand-driven, portable service delivery -Since beneficiaries can authenticate their Aadhaar anywhere, delivery processes can be re-engineered to make delivery more flexible & favorable to the beneficiaries.
- Access to relevant MIS and the empowerment of beneficiary -Aadhaar can be used to empower beneficiaries and provide self-help facilities for activities such as checking their entitlements, services delivery timeline, log grievances etc. Through self-service kiosks, mobile phones, call centers etc.
- Accountability / vigilance -Aadhaar-based authentication can also be used for authenticating officials / members responsible for service delivery, audits, vigilance etc.

# C. Address and Demographic Verification:

- Address verification -Address verification, which is a key requirement for providing services like telephone connection, banking products, could be done through Aadhaarauthentication. This is expected to reduce the cost of KYC & at the same time provide a reliable verification mechanism.
- **Demographic data verification** -Demographic data like age and gender can be verified through Aadhaar authentication.

### **Aadhaar Authentication Offerings**

• Type 1 Authentication – Through this offering, service delivery agencies can use Aadhaar Authentication system for matching Aadhaar number and the demographic attributes (name, address, date of birth, etc.) If a resident.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

- Type 2 Authentication This offering allows service delivery agencies to authenticate residents through One-Time-Password (OTP) delivered to a resident's mobile number and/or email address present in CIDR.
- Type 3 Authentication Through this offering, service delivery agencies can authenticate residents using one of the biometric modalities, either iris or fingerprint.
- Type 4 Authentication This is a 2-factor authentication offering with OTP as one factor and biometrics (either iris or fingerprint) as the second factor for authenticating residents.
- Type 5 Authentication This offering allows service delivery agencies to use OTP, fingerprint & iris together for authenticating residents.

The Aadhaar number needs to be submitted in all forms of authentication so that this operation is reduced to a 1:1 match. Author number itself is not an authentication factor. Type 1 authentication may be combined with any other Aadhaar authentication offering.

Service delivery agencies should select the appropriate authentication type based on their business requirements. They would need to balance out the resident convenience and service delivery risk before finalizing the authentication offering.

# AadhaarAuthentication for Financial Transactions

Aadhaar authentication can be used by the financial sector for verifying the customer identity for

Financial transactions. It can be done through any of the delivery channels e.g. Branch, ATMs, Internet, mobile and microATMs. Appropriate authentication mode (biometric, OTP) can be used by the financial institute as per their business need.

# ElectronicKYCplatform (AEA)

- Aadhaar Payments Bridge (APB) A system that facilitates seamless transfer of all welfare scheme payments to beneficiary residents' Aadhaar Enabled Bank Account (AEBA)
- Author Enabled Payment System (AEPS & Remittances) A system that leverages other online authentication and enables AEBAs to be operated at anytime-anywhere

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us



October 2012

banking mode by the marginalized and financially excluded segments of society through microATMs

## AadhaarEnabledAccounts (AEA)

• Electronic opening of accounts at the time of Aadhaar enrollment in partnership with banks through an electronic process.

• Linking of adhering to the existing bank accounts through any of the delivery channels e.g. Branch, ATMs, Internet, mobile and microATMs.

### Aadhaar Payments Bridge

- APB is a repository of Aadhaar number of residents and their primary bank account number used for receiving all social security and entitlement payments from various government agencies.
- APB requires using Aadhaar numbers as the primary key for all entitlement payments. This would weed out all fakes and ghosts from the system and ensure that the benefits reach the intended beneficiaries.
- This benefit has an even greater ramification as more and more social security programs are moving from in-kind to in-cash subsidies.
- Easy to use mechanism for electronic credit of government welfare and subsidy payments on the basis of Aadhaarnumbersas unique identifier. Provides end-to-end visibility of transactions to government ministries/departments.
- Ensures no duplicates/fakes exist in the system thereby reducing leakages in government spending.

### **APB Process Steps**

The key steps in posting payments via APB are:

• A service delivery agency that needs to make payments to its beneficiaries (such as MGNREGA wages, scholarship disbursement, old age pension etc.) Provides APB File



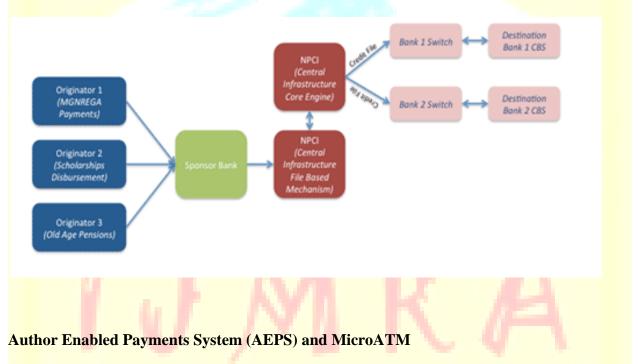
ISSN: 2249-0558

containing details of Aadhaar number, welfare scheme reference number and the amount to be paid to its bank (called the sponsor bank).

- The sponsor's bank adds banking IIN (Institute Identification Number provided by NPCI to participating banks) to the APB file and uploads onto NPCI server.
- NPCI processes uploaded files, prepares beneficiary bank files and generates the settlement file
- Settlement file is posted to bank accounts with an RBI

IJMÆ

• Destination banks can download the incoming files for credit processing after the settlement file has been processed.



The Report of the Committee on Financial Inclusion chaired by Dr. C. Rangarajan, made two important observations:

- Technology has to enable the banks to go where the customer is present, instead of the other way around.
- The technology should allow interoperability among different systems adopted by different banks.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

633

# IJME

# Volume 2, Issue 10

# <u>ISSN: 2249-0558</u>

Author Enabled Payments System (AEPS) is a payment mechanism that uses online Aadhaar authentication for customer identification .The online, inter-operable architecture of AEPS allows a resident to access his account from anywhere in the country and in the near future through any delivery channel e.g. ATMs, microATMsetc. Unlike the current BC models. MicroATMs are standardized devices where residents can conduct basic financial transactions (Credit, Debit, Balance Enquiry, Remittances etc.) In assisted mode e.g. BCs.



The Aadhaar Payments Bridge will facilitate the processing of payments file from the Government departments received via the sponsor banks (assigned bank), and subsequently routing of the payments fail to the beneficiary's bank. The beneficiary's bank has the other number mapping to the beneficiary's bank account number to credit the amount in the end beneficiary's account. Aadhaar Payments Bridge System (APBS) is a payment service offered by the National Payments Corporation of India and the process for on-boarding of banks has also been defined by NPCI.

AEPS empowers the marginalized and excluded segments to conduct financial transactions (Credit, Debit, Remittances, Balance Enquiry, etc.) Through microATMs deployed by Banks in their villages.

# AEPS Process Steps

The key steps in making transactions via AEPS are:

- Resident provides his/her Aadhaar number, details of the financial transaction sought and fingerprint impression of the microATM device.
- Digitally signed and encrypted data packets are transferred via Bank Switch to NPCI to UIDAI.
- UIDAI processes the authentication request and communicates the outcome in form of Yes/No.
- If the authentication response is Yes, bank carries out the required authorization process and advises microATM on suitable next steps.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Cage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

### Remittances

• The interoperable architecture of the AEPS and micro ATMs enables online and realtime fund transfer across banks thus enabling an efficient and cost-effective remittance ecosystem

### **Benefits to Various Stakeholders**

### Residents

- Obviates need for multiple bank accounts for different schemes
- Faster channel for receiving all welfare payments without any middlemen
- Access to microATM in villages saves bank trips, thus reducing opportunity and access costs
- Will help in more usage of the formal banking system for managing savings and borrowing
- Online and interoperable architecture of AEPS ensures anytime-anywhere access to bank accounts which can be a boon especially for the migrant population estimated to be 100 million
- Empowerment of individuals especially women

#### **Government Departments**

- Use of Aadhaar as primary key eliminates ghost beneficiaries and leads to better targeting
- Subserves goal of furthering Financial Inclusion by processing government disbursements through another number
- Reduces time and cost in the payment process
- Provide electronic audit trail and end-to-end visibility for all payments

#### Banks

• Reduces the credit and operational risks in the branchless banking model

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

- Enables Banks to rely on BCs to reach the unbanked population, eliminating the need for a physical bank branch or ATM's in remote areas
- Will provide an impetus to electronic payments and thus reduce cash management costs
- Different financial products through microATMs can be an additional source of revenue for banks and for the BC model.

### RBI

- Subserves goal of furthering Financial Inclusion by processing government disbursements through another number
- Promotes electronification of retail payments through a secure mechanism

# **CONCLUSION**

This shows the residents are thrilled about the availability of BCs with microATMs at their doorstep. It was also useful that beneficiaries, especially women beneficiaries had a sense of empowerment. The co-ordination and support of various stakeholders including Central and State Governments, RBI and banks is significant and critical to the success of the program. Implementation of the Aadhaar-based incorporated payments infrastructure can ensure that every beneficiary receives their entitled amount at their doorstep through a business model that is commercially viable for the financial system. The purpose of Authentication is to enable residents to prove their identity and for service providers to confirm that the residents are 'who they say they are' in order to supply services and give access to benefits.

# References

- AEPS Procedural Guidelineshttp://www.npci.org.in/documents/AEPS%20operating%20procedures.pdf
- APBSProcedural Guidelineshttp://www.npci.org.in/documents/APB%20operating%20procedures%20Final%2008-08.pdf
- Daryl Collins, Jonathan Murdoch, Stuart Rutherford, and Orlanda Ruthven. Princeton University Press, 2009.
- Exclusion to Inclusion with Micropayments
   <u>http://www.uidai.gov.in/UID\_PDF/Front\_Page\_Articles/Strategy/Exclusion\_to\_Inclusion</u>
   <u>with\_Micropayments.pdf</u>
- Financial inclusion by extension of banking services—Use of Business Correspondents (BCs).
- Guidelines on managing risks and code of conduct in outsourcing of financial services by banks
- Mobile payments in India: Operative guidelines for banks. RBI, June 2008. URL
- NPCINotification: <u>http://www.npci.org.in/notified.aspx</u>
- *Portfolios of the Poor: How the World's Poor Live on \$2 a Day.* http://rbidocs.rbi.org.in/rdocs/Notification/ PDFs/68417.pdf.
- RBI, January 2006. URL.
- RBI, November 2006. URL
- RBI, November 2009. URL