

Swabhiman-ICT based Financial Inclusion Implementation- A Case of Bank of Maharashtra

Hello. I am Devdatta Rokade. I am from Bank of Maharashtra. I am here today to discuss with you all about ICT based financial implementations that we have done at our bank.

Let me quickly go through the agenda that I would be covering. I will be mainly speaking on:

1. The implementation Principle – 4 A's
2. And with that, being a PSU bank, the inherent challenges that all of us had
3. Overcoming those challenges, how have we built a model which is Integrated and Interoperable
4. The focus is for a success model to have multiple touch-points. So what all multiple touch points that we have provided in our model.
5. Case Studies which would again depict how those challenges were there and how they were overcome

1. Implementation Principle – 4 A's

To begin with, the principle of any model and this being a Financial Inclusion model where most of the rural Indian population was under-banked, many attempts were being made in order to implement Financial Inclusion amongst those. But somehow or the other we were really not getting success. The models were failing. So, we thought let us go by a principle and the principle being the 4 A's talked aloud nowadays, namely:

- (i) Availability
- (ii) Affordability
- (iii) Accessibility
- (iv) Acceptability, which is very important amongst all the stakeholders

Mapping challenges (shown in the subsequent slides) with the 4 A's:

- (i) Availability: Availability is for the stakeholders / end customers. The service should be made available that too as and when it is required. It should be flexible enough.
- (ii) Affordability: Affordable to whom? To all the stakeholders. The elements involved in the implementation of FI are apart from Bank, Business Correspondent (BC), BC Agents and then finally the prime stakeholder being the customer. Over and above all of these, Government is again a very important stakeholder in the whole scenario and Regulator is one of the stakeholders as well.

As far as affordability is concerned, yes it should be affordable to the customer. At present in the Indian banking scenario, though we are quite liberal, but still there are services which are being charged. This is something where we thought that we will certainly make this service available free of cost. The important element for delivering services under FI is the Business Correspondent (BC) and the Business Correspondent (BC) should have attractive incentive / motivation within in order to make this project a success. The Banks would be putting in a lot of infrastructure in place for implementation of this project and also to make this project viable for them.

- (iii) Accessibility: As far as accessibility is concerned, again I was talking about a Service Window. It should be accessible easily. So, the mobility part is very important over here where the customers can visit the Business Correspondent (BC) or the Business Correspondent (BC) can visit the villages. So, at any given point of time, the service should be available. It is as good as an ATM where a person is delivering the services.
- (iv) Acceptability: When all of these (above) things would come, certainly acceptability is there. Of course, when acceptability to any product is there, in that case certainly that project heads for success.

2. Key Technology Challenges

- (i) Integration issues:

Integration with many systems that we have in place such as:

- a. First and foremost Core Banking System which is to be integrated with this
- b. FI Gateway or Mobility Gateway
- c. ATM Switch
- d. In typical Indian banking scenario, (there are) different System Integrators for different systems like one switch having different System Integrators
- e. Integration of diverse technologies

More or less, by standards, integration is not a problem. Again, Biometrics are there. AEPS standards set by UIDAI are to be considered. By standards, integration and interoperability are not issues.

- (ii) Interoperability

In this particular case, interoperability was not just interoperable between the systems, but it is even from the operations viewpoint as well where interoperability between Business Correspondent (BC) Agents was very important. Interoperability with various types of devices such as mobile devices,

micro ATMs, touch points like laptop is also very much required. We will be discussing in the subsequent slides about how the model was made interoperable.

(iii) Connectivity

Connectivity has been really a challenge in rural India. Though the proliferation is quite good, but still GPRS has been the issue in remote areas. When we speak about rural FI, this was really a challenge. We worked with multiple connectivity options such as Broadband Internet, Mobile Internet. A couple of places had absolutely no connectivity. Here we had to provide V-SATs, but again at the cost of mobility.

(iv) Scalability

With efforts from various entities including Government, Regulators and again the pressure mounting from corporate as well for FI, we thought this model is going to evolve into a very big model where number of accounts would also increase. So, our model should be sustainable. We have worked on that and the scalability was also certainly considered.

(v) Portability

When we speak about portability, I also mean the mobility part of it also. So, the model that we really worked on was we thought it should be portable, should work on micro ATM and even on ATMs. It should also be ported into mobile phones as well.

(vi) Security

When it comes to connectivity through Internet, security becomes a prime concern. While designing the touch points, we had options of laptop, micro ATM (which is a Linux based machine but has limited options for free browsing), mobile. So, we had to take care of security aspects in all of these 3 or 4 touch points. Laptops are very very open and vulnerable to the threats. Though at this point of time, there is not so much risk, when large number of payments are routed through this channel, certainly security and even to some extent phishing are going to be a concern. We can make use of Secured Socket Layer (SSL). Of course, biometrics are very much there. We should also have some End-Point protection mechanism and monitoring of these End Points as well, including mobiles, which would be given to the Business Correspondents (BCs). It is not a bad idea to monitor these devices or this entire mobility set up with the help of something like 24 X 7 Security Operations Centre (SOC).

(vii) Ease of operation

You have to enroll the customers first, even it is a mobile device. Through this mobile device, the entire information of the customer is to be captured. Even the biometrics have to be captured during the enrollments. Subsequently while

transactions are being made, the Business Correspondent (BC) should find it very easy to work on this model.

(viii) Reconciliation and settlement

Many issues are going to be a concern actually. For example, there could be some transactions which we may find in CBS that the customer's account is debited but at the end point mobile device at BC level, the transaction was not successful and the fund was not given. It is something called found in CBS and not in your mobile device. Or, it could be reverse also which is very dangerous. That is, funds are already remitted, cash is already handed-over to the customer, but his account is not debited. So, this reconciliation and settlement was also a consideration.

3. Integrated and Interoperable FI Model – Overcoming the challenges through Integrated and Interoperable Model

FI Gateway:

FI Gateway is also a Mobility Gateway for us.

Biometric Authentication System (BAS):

We have also got a local Biometric Authentication System (BAS). Point to be noted here is multiple touch points and how they are integrated.

Pass Through Server (PTS):

Through GPRS/GSM/PSTN networks, multiple Business Correspondent (BC) Agents (BC Agencies rather) come to our Bank's FI gateway through a server called Pass Through Server (PTS) which aggregates all BC End-Points (mobile devices) and then it would make a single stream to the FI Gateway of our Bank. Then we have to have the safeguards like Firewall, IDS, IPS, Switches. Of course, they are mandatory requirements over here.

Common Service Centre (CSC):

We have also got something called as CSC, over and above all of these touch-points. It is Common Services Centre (CSC) set up by Central Government of India along with some State Governments also have provided this facility. These are mainly to provide various citizen services to the customers and they are large in number. They are mainly the Entrepreneurs who run and earn some money out of each of these certificates being issued to the citizen. We thought again we can give this as an additional business to these Entrepreneurs and with that we have done some implementation and we have got some success.

Ultra Small Branch (USB):

We have also got something to talk on USB implementation in our Bank. You can also see that integration has been done with National Payments Corporation of India (NPCI). They are driving the EFT switch called the National Financial Switch (NFS). They have got back-to-back arrangements with Unique IDentification Authority of India (UIDAI).

4. Multiple touch-points (the focus for success) provided in our model

Let us quickly go through the touch points along with the case studies.

(i) USB

The USB implementation in Bank of Maharashtra is called as Mahabank Gram Seva Kendra (MGSK). We have got so far 1165 such USBs. The main purpose is wherever we do not find Business Correspondents (BCs), in such places still we extend our services through our staff members. Again, they need not be the part of our network. So, what they do actually is they (our Bank staff) operate this USB based on the signatures and now biometrics have also been introduced. Again, mobility was the focus point over here. So, he would be connecting using a mobile device or even a laptop using a mobile connectivity. Over the Internet, he would be connecting to our Internet Banking. So, what we have done actually is we have implemented SSL. We have also integrated with Internet Banking and back to CBS in such a way that additional core banking credentials apart from Internet Banking credentials are also required. So, he can perform a set of a few transactions like cash deposits, cash withdrawals, fund transfer, NEFT and issuing mini statement as well. This is running in over 1000 branches.

USB Architecture:

This is the architecture as I have already briefed. USB terminal is connected over Internet cloud and then hits the Internet Banking server. I have got a layer of servers in between which is part of the core banking infrastructure.

(ii) Common Service Centre (CSC)

We have got a separate application for these CSCs where we can again enroll new customers on FI and at the same time they can also perform transactions and provide banking services.

These are the 5 CSC agents (MahaOnline, Spanco, CMS, Basix, Reliance) with whom we (Bank) have tie-up with.

Again to brief about touch-points, Village Level Entrepreneurs (VLEs) i.e. CSC Entrepreneurs operate on Internet based software. This is very similar to USB operation, but well there is no direct interface of these CSCs with the CBS. It works on both Aadhaar and non-Aadhaar based biometric authentication at village level. We provide all those facilities. Apart from Account Opening, Cash Deposit etc, we also provide interoperability. So, other bank customers can also come to our CSCs and operate. We have been doing that with couple of Indian PSU banks.

CSC Architecture:

This is the architecture where NPCI and UIDAI would come into picture mainly for Aadhaar enabled transactions.

5. Case Studies depicting what were the challenges and how they were overcome

(i) Reverse Migration

While we were working towards an integrated model, we had quite a few earlier enrollments in the legacy FI where FI was not driven by the biometric identity, but it was mainly done as a part of compliance. So, those FI accounts we had to migrate into this biometric system into the FI Gateway. So, well, we had to do that and there was some work which really went through it.

(ii) Migration from existing ICT based FI

There was again ICT based FI implementation earlier done by the Bank but not with the latest standards. Again, those legacy biometrics captured which were to be migrated into the new standardized FI Gateway was also a challenge. It was really a challenge. So, what we had to do is we had to take the raw images of biometrics (fingerprints) and then we had to convert those biometrics into the templates that are complying with the Aadhaar enabled standard. That was also done. That exercise was also completed. That is where we had achieved interoperability and even the mobility to our Business Correspondents (BCs). They can go across their sales and they can perform. This is how the enrollment data was actually worked out and pushed into the Bank's FI Gateway.

(iii) Vishrantwadi, Pune – Leveraging ICT based FI for reducing footfall in the branch

Apart from this rural FI, what we have done is we have leveraged this platform for reducing footfall in the branches. We have got one branch to talk on, that is, Vishrantwadi in Pune. In this branch, we have observed that during the first 10 days of a month, it is fully crowded and it is very difficult to do any other business because of the pensioners coming in and withdrawing their pensions. So, we have a large number of staff there working for these pensioners. So, what we have done is we have worked on providing a solution to this by providing multiple touch points, again a BC model and a mobility given with the help of micro ATM, with the help of CSCs (which we have just discussed about) and again with the help of laptop based mobile device as well where we have captured fingerprints of all those pensioners, around 3000 in the branch. We have also taken their Aadhaar enabled data. We have seeded that data with the CBS and now with that, as many as 1500 transactions recently have happened in a month only towards the pensioners and that footfall (in the branch) is certainly reduced.

Technologies used:

This particular model uses various technologies such as Core Banking, FI Gateway, micro ATMs and laptops.

Transaction modes:

For Aadhaar based transactions, it goes all the way to NPCI and to UIDAI as well. At the same time, local biometric authentications with the Bank's Biometric Authentication System (BAS) is also possible.

Transactions:

Cash Deposits, Withdrawals, Standard transactions; Aadhaar to Aadhaar fund transfer is also made possible.

Advantages:

So, with this implementation, there are advantages:

- (a) We are moving towards paperless banking, mainly for such branches. There is absolutely no paper required for withdrawal transaction.
 - (b) We have widened the Service Window which is typically from 10 AM to 3 PM (or whatever in a particular branch). That Service Window is widened and even BC can be available from 7'o clock in the morning up to 7 or 8'o clock in the evening depending on his availability for the day. But yes, that flexibility is there.
 - (c) Apart from that, Customer Service is possible even on public holidays. So, this is a real advantage that we are getting out of this implementation at Vishrantwadi.
 - (d) This becomes a real mobile solution because it is location independent solution. The customer may opt to go to the kiosk or he may go to a small centre around the branch or he may visit the Business Correspondent (BC) or Business Correspondent (BC) may visit.
- (iv) Delhi Anshree Yojana – Direct Beneficiary Transfer (DBT) for food subsidy

So, with this, I would just like to conclude with one implementation in India i.e. on Direct Beneficiary Transfer. It was first implemented in Delhi – The Anshree Yojana it is called as, where food subsidy was distributed amongst various citizens. There we had the opportunity to be the first Bank to have this transaction of DBT.

So, with this, I thank you so much and I conclude my session. Thank you. Have a nice time.

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