MicroSave India Focus Note 61

Interbank Mobile Payment System: Will It Catalyse Financial Inclusion?

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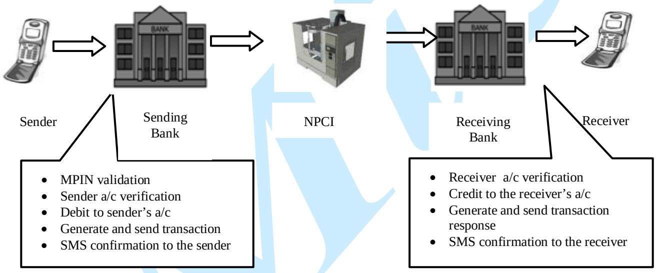
Mobile telephony is one of the world's fastest growing industries and offers high potential for mobile money transactions.[1] Payment systems providers and mobile network operators are exploring innovative ways of popularising mobile phone-based financial transactions. Their offer is largely focused on the purchase of services, and some goods, on the mobile. Financial institutions, particularly banks, are exploring the mobile channel to increase outreach and help achieve financial inclusion. Some banks see mobile money as a business opportunity but for others, especially in India, it remains more of a means to meet a mandate.

IMPS: A Brief Introduction

IMPS or the interbank mobile payment system is a service offered by the National Payments Corporation of India (NPCI) through its National Financial Switch (NFS).[2] It offers an instant interbank electronic fund transfer service through mobile phone on a 24x7 basis. The service enables customers to use mobile phones as a channel to access their bank accounts, and to conduct interbank fund transfers with immediate confirmation. The participating entities are: the remitter (sender), the beneficiary (receiver), their respective banks and the NFS. The sender and receiver must link their mobile phone numbers to their account numbers in their respective banks. The banks will provide them with the Mobile Money Identifier (MMID), which is a randomly generated seven digit unique number linking the mobile number to the account number.[3] The sender can transfer money to a beneficiary by entering the mobile number and MMID of the receiver with amount to be transferred, authenticating the transaction by MPIN.[4]

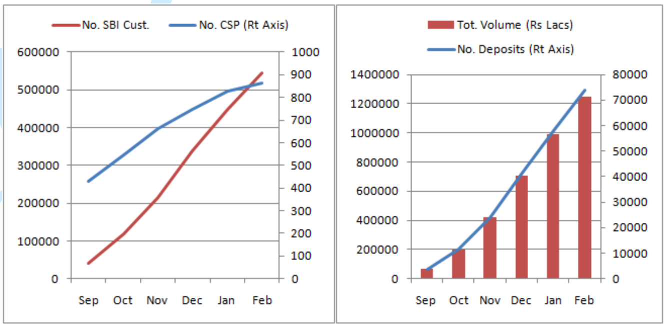


Benefits to Customers and Banks

The IMPS provides a platform for account holders of participating banks to transfer money to any other account holder in the network. The only prerequisite is a mobile handset. Once a customer is registered for m-banking he/she can transfer funds from his/her bank account to other bank accounts. Provided there is sufficient balance in his/her account, he/she does not need to stand in queues at the bank branch or post office. And unlike, if the remittance is sent through courier[5] or a relative/ friend, there is no risk of the money not reaching the beneficiary.

Currently eight banks[6] (representing about half of the bank accounts in India) are participating in the network while six others[7] are under IMPS certification. The existing network of participating banks is already huge (both in terms of customer base and branch network). As the number of banks using IMPS grows, it will provide a significant opportunity for the banks to connect each others' customers.

Furthermore, as Eko and State Bank of India (SBI) have seen through linking the Eko platform to SBI's core banking systems (thus allowing account holders to remit across the country), the IMPS will provide a value proposition that customers understand immediately and value highly.



Uptake of '*Tatkal*' product at Eko agent (CSP) outlets after SBI linked the Eko platform to its CBS

Opportunities and Challenges for Financial Inclusion

Apart from being a remittance service for account holders of banks, IMPS can also play an important role in catalysing the process of financial inclusion. The present structure of IMPS is for:

- Existing full KYC account holders
- With a mobile handset
- Who register for mobile banking (m-banking) services, but
- They have to transact through bank branches, or in addition ATMs for withdrawal purposes.

Opportunities

When and where participating banks link IMPS to their Business Correspondent (BC) channel, the service can

[1] See *MicroSave* India Focus Note 4, "Electronic Banking: The Next Revolution in Financial Access?"

[2] http://www.npci.org.in/aboutimps.aspx

[3] This is separate from the UID

[4] MPIN is the mobile personal identification number which is to be entered by the user to authenticate every transaction, just like an ATM PIN.

[5] Courier is the name given to informal/illegal money transferring agencies/ individuals that provide the money transfer service charging commission to users of their service. See *MicroSave* India Focus Note 27, "Migrant Remittances – An Untapped Market".

[6] These are Axis Bank, Bank of Baroda, HDFC Bank, ICICI Bank, State Bank of India, YES Bank, Union Bank of India and Lakshmi Vilas Bank

[7] Development Credit Bank Ltd., Indian Bank, IDBI Bank, Syndicate Bank, Citibank and Karur Vysya Bank

effectively create illusive inter-operability for remittances and payments and thus open a huge range of opportunities.

The present IMPS structure allows cash in/cash out through bank branches or ATMs only, and therefore the remitter has to visit a bank branch to top up her account, and the receiver has to visit her bank branch or ATM (although the remitter's and receiver's banks can be different) for cash out. However, if the remitter's and receiver's banks have linked their network to their respective BC channels;[8] both customers can perform the cash in/cash out at the neighbourhood BC agent.

This provides many benefits:

- Ability to remit money through mobile phone
- To family members/friends/relatives/children studying away from home etc.
- By registering only once for m-banking
- Without cash risks
- At a very low cost (depending on what the banks charge and what mobile network operator charges for connectivity and /or SMS)
- By topping up the account at a BC outlet (for the remitter), and
- Withdrawing cash when required at another BC outlet (for the receiver)
- Leaving some money in the savings account if the whole sum is not required immediately.

The present transaction limit of Rs.50,000 per customer per day[9] appears sufficient for the low income customers given the average remittance amount they send home. For instance, the average money order sent through India Post during the financial year 2008-09 was for Rs.917.2.[10] For other channels of remittances (banks, 'courier' and other informal channels) estimates vary between Rs.2,000 and Rs.5,000, but it is certain that transactions of more than Rs.10,000 are very rare.

The service is free till March 31, 2011, after which a nominal switch fee of Rs.0.25 will be charged to the sender for each successful transaction. Adding the bank charges (whenever they start charging for this service) and the mobile network providers' charges, the per transaction cost will rise but should be cheaper than other options for remittance.[11] A money order through India Post costs 5% of the amount remitted; 'couriers' charge between 3-5%; and some banks charge up to Rs.25 for remittance amount of Rs.10,000. Moreover the transaction is completed almost instantaneously.

Challenges

Though the concept looks interesting and workable, it will face challenges during implementation.

First of all, for most banks, the BC channel itself has not yet stabilised. Issues of viability, logistics, agent and liquidity management and so on remain. Even recruiting the right entities/individuals as BCs is not an easy task.[12]

Customer awareness and financial literacy are the other areas that will present challenges. By definition, the unbanked (and even the "under banked") populations have never or rarely transacted in banks, or experienced conventional banking. As mobile money models worldwide have discovered, it is difficult to communicate and generate trust in a cutting edge technology where the money is moving in a 'cashless' manner between mobile phones. Security features of the system, like the MPIN and explaining to clients that the account number and MPIN must not be disclosed to third parties, will be also be critical for both security as well as establishing the all important 'trust' factor. Furthermore, liquidity issues at BCs may be exacerbated by IMPS, which is likely to result in large-scale demand for cash out in the first week of each month.

A robust customer complaint redressal mechanism will also be essential to take care of failed transactions, tracking transactions in case of disputes, rectifying erroneous transactions and so on.[13] If the customer experience is not good, they will just stop using the facility and the bad word of mouth will prevent new customers from enrolling.

The Way Forward

Much of what has been suggested above will depend on the level of integration that banks allow between their core banking system (CBS) and the BC network. Few banks have linked the two platforms, most banks continue to keep BC transactions on a platform separate from the CBS.

Given the current regulation requiring BC outlets to be within 30 km away of the link branch in rural areas, banks with wider outreach (like SBI and Punjab National Bank) will have to take the lead in providing more BC outlets for the network. At the same time, it provides a tremendous opportunity for small or new banks with limited outreach to leverage the branch, ATM and BC network of larger banks to provide nationwide remittance services. It also provides a great opportunity for urban-centred private banks to provide remittance services into the rural areas. Thus there is a risk that the larger banks will drag their feet or use pricing mechanisms to reduce real access for their competitors.

The present regulations provide ample scope for banks and financial institutions to explore ways of reaching out to the un- and under-banked. Cooperation and coordination will be required to take advantage of the potential of these technological solutions and to create the type of inter-operable solutions that will lead to massive uptake and financial inclusion. There will be learnings on the way, but solutions will emerge as banks and financial institutions set out on the path to financial inclusion with conviction.

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[8] As Eko has now done with the SBI *Tatkaal* system

[9] Rs.50,000 if the mobile application supports end-to-end encryption and Rs.1,000 if it does not and the transaction instructions are on basic SMS. For BC customers, the daily limit of transaction is Rs.10,000 that will still be sufficient for majority of users.

[10] Calculated from Table 2 of India Post Annual Report 2009-10

[11] NPCI believes that interbank charges should be below Rs.5.

[12] See *MicroSave* Briefing Notes 73 & 74, "Managing Agent Networks to Optimise E- and M-Banking Systems"

[13] Between Jan 2010 and Jan 2011, the average percentage of disputes to the total number of transactions on the ATM switch has been in the range of 0.08% to 0.21%. This can be taken as a benchmark since these transactions also go through the NFS switch and the same banks are participating on the ATM network as well.