Duvvuri Subbarao: Harnessing technology to bank the unbanked

Remarks by Dr Duvvuri Subbarao, Governor of the Reserve Bank of India, at the Banking Technology Excellence Awards 2009 at the Institute for Development and Research in Banking Technology (IDRBT), Hyderabad, Andhra Pradesh, 18 June 2010.

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1. It is always a delight to be here in this wonderful city of Hyderabad. The location of IDRBT in Hyderabad is not an accident; it is a reflection of the growing reputation of Hyderabad as a premiere location for IT industry. Hailing as I do from this state, I know that we came from behind; twenty five years ago, there were several other cities ahead of Hyderabad on the technology scene; today, we are among the front runners. This remarkable reinvention of Hyderabad as an IT hub is a tribute to the brain-power and entrepreneurship of Andhra Pradesh. The location in Hyderabad of IDRBT, which has been spearheading the use of technology in banking, is a deliberate choice that has been informed by the synergies of the technology pool here.

Pioneering efforts of Andhra Pradesh

2. Andhra Pradesh has been in the forefront of financial inclusion efforts as well. The first grass root experiment towards financial inclusion based on technology, for direct transfer of government benefits to the beneficiaries' bank accounts, started off a couple of years ago here in Andhra Pradesh in Warangal district. That small beginning has spun off a nation-wide campaign today for financial inclusion by harnessing technology for storing data on smart cards and for biometric identification of beneficiaries. That pioneering experiment has also triggered off several grass root experiments towards financial inclusion. It is, therefore, appropriate that we are recognizing innovations and achievements in the use of technology in banking in this pioneering state of Andhra Pradesh.

Growing role of technology in banking

3. The transformation of the financial sector and the payment systems in this country over the last decade has been remarkable. No doubt, the brick and mortar infrastructure has expanded; the number of bank branches has multiplied ten fold – from 8000+ in 1969 when the first set of banks were nationalized to 80000+ today. But what has been even more striking has been the change in the manner of financial delivery. All of us present here will recall the agony we used to go through for outstation cheques to be realized and credited to our accounts. This used to take up to 45 days as the cheque had to physically travel across the country to the paying branch. There were even cases where the ultimate paying branch returned the cheque to the originating bank since it had been defaced by multiple postal stampings on its travel. Contrast that with the situation today. Outstation cheques normally get cleared in two days. And if people shift from paper to electronic modes, the transfer can be even faster. The RTGS allows funds transfer on a real time basis and the NEFT on a near real time basis. Keeping in view the safe, secure and efficient electronic payment modes now available, the Reserve Bank has also closed the system of high value cheque clearing.

4. In his recent book, "*Building Social Business*", Muhammad Yunus notes that – in the sixties, no one predicted that internet would take the world by storm; that laptops, palm-tops, blackberrys, ipods, iphones, tablets and kindles would be in the hands of millions. Even twenty years ago, no one was predicting that mobile phones would become an integral part of life in every village of the world. Evidently, in 1990, we could not foresee the world of 2010; technology just outpaced our imagination. Similarly, in 2010, perhaps we are just unable to look ahead at 2030. In short, how technology is going to shape our world and our world

views is quite unpredictable. What is predictable though is that as newer technologies are ushered in, banking services will become more affordable and accessible. Note that the global financial crisis marked failure in several parts of the financial system; but the one segment that remained robust amidst failure all around was the payment and settlement system – the most technology intensive part of the financial system. Harnessing this power of technology for making our banking system more efficient, and for financial inclusion, is going to be a big opportunity and a bigger challenge for us. I want to focus my remarks today on this topic.

Why is financial inclusion important?

5. Why is financial inclusion important? It is important simply because it is a necessary condition for generating and sustaining equitable growth. There are few, if any, instances of an economy transiting from an agrarian system to a post-industrial modern society without broad-based financial inclusion. As people having comfortable access to financial services, we all know from personal experience that economic opportunity is strongly intertwined with financial access. Such access is especially powerful for the poor as it provides them opportunities to build savings, make investments and avail credit. Importantly, access to financial services also helps the poor insure themselves against income shocks and equips them to meet emergencies such as illness, death in the family or loss of employment.

The size of financial exclusion

6. Yet the statistics on financial exclusion in India are disheartening. Out of the 600,000 habitations in the country, only about 30,000, or just 5 percent, have a commercial bank branch. Just about 40 per cent of the population across the country have bank accounts, and this ratio is much lower in the north-east of the country. The proportion of people having any kind of life insurance cover is as low as 10 per cent, and the proportion having non-life insurance is an abysmally low 0.6 per cent. People having debit cards comprise only 13 per cent and those having credit cards a marginal 2 per cent.

7. These statistics, staggering as they are, do not convey the true extent of financial exclusion. Even where bank accounts are claimed to have been opened, verification has shown that a significant portion of these accounts are dormant. Very few conduct any banking transactions and even fewer receive any credit. Millions of people across the country are thereby denied the opportunity to harness their earning capacity and entrepreneurial talent, and are condemned to marginalization and poverty.

8. But there is a brighter side to the story. Remember that illustration they give in business strategy courses. A business executive of a shoe company was sent to a large developing country to assess the market potential there. What he saw was millions of people going without shoes. He came back and reported to the management that there was no business potential there because no one wore shoes. A few months later, the strategist of a rival company went and saw the same picture. He came back and reported to his management that there is tremendous business potential in that country because of the number of shoes they can sell. Ultimately, it is a question of mindset, and it is only the change in mindset of all concerned stakeholders that can make financial inclusion a reality.

Is financial inclusion a viable business model?

9. How can we make financial inclusion workable? Contrary to common perception, financial inclusion is a potentially viable business proposition. Take the success story of Dharavi, a bustling industrial-slum in Mumbai. Wikipedia reports that Dharavi exports goods worth $500 – $650 million every year. Ironically, even though Dharavi is situated right in the heart of Mumbai, the most banked city in the country, and adjoins the Bandra-Kurla

Complex, Mumbai's financial district, it did not have a commercial bank branch for a long time, notwithstanding its celebrated entrepreneurial spirit and export performance. The first commercial bank branch was opened in February 2007. In just three years, the bank registered business in excess of Rs. 44 crore. Enthused by this success, one more bank has opened a branch in Dharavi and many more are eager to do so. There are now 9 ATMs in Dharavi, all of them being actively used.

How does the other half live?

10. The reality is that money management is a well-understood part of everyday life of the poor, and therefore a key factor in determining their coping strategies. Some of you may have come across this recent, thought provoking book, "*Portfolios of the Poor: How the World's Poor Live on $2 a Day*" by Daryl Collins et al. Most books on poverty and development, as we know, are "big picture" books that tend to take an aggregate view based on anecdotal evidence or at best statistical work. This book strikes a refreshingly distinct path. What the authors have done is to zoom in on the basics of daily poverty to explore how poor people manage their money. Let me cite a paragraph from the review of the book in the New Yorker:

> Ten years ago, the authors of this unusual study began collecting detailed yearlong "financial diaries" from households in Bangladesh, India, and South Africa, with a focus on those living on less than two dollars a day per person. They found, to their surprise, that none of the families lived hand to mouth; even the poorest relied on complex combinations of financial strategies, including joining savings clubs, buying funeral insurance, and acting as "money guards" for neighbors. These people did things that might seem irrational – borrowing in order to save; paying interest on savings – but that made sense given their unpredictable incomes and limited options.

11. The Dharavi example that I cited earlier is an illustration of how banking the unbanked can be a win-win opportunity. This book is further evidence of the sophistication with which poor people think about their finances. It also demonstrates how bringing them within the fold of formal banking can "make a difference" to their coping strategies.

Financial inclusion – efforts so far

12. In order to further financial inclusion, the Government and the Reserve Bank are pursuing several initiatives. Let me recount some of them briefly.

13. First, to improve banking penetration in the north-east, Reserve Bank has asked State Governments and banks to identify centres where there is need for setting up branches that are full-fledged, offer forex facilities, handle government business and meet currency needs. RBI will then fund the capital and running costs for five years, provided the State Government concerned is willing to make available the premises and put in place appropriate security arrangements.

14. Second, Government of India has set-up two funds – the Financial Inclusion Fund for meeting the costs of developmental and promotional interventions towards financial inclusion, and the Financial Inclusion Technology Fund for meeting the costs of technology adoption. Each of these funds has an overall corpus of Rs. 500 crore.

15. Third, the Finance Minister announced in his latest budget that every village in the country with over 2000 population must have access to banking services by March 2012. Even as the brick and mortar branch presence will expand, the big driver going forward will be branchless banking based on the business correspondent (BC) model and leveraging on technology. In order to facilitate this, the Reserve Bank has also enlarged the types of entities that can be engaged as BCs.

16. We are all aware of Aadhar („š¸¸£), the Unique Identification Number (UID) Project of Government of India, headed by Nandan Nilekani. Although the main aim of UID is to provide a unique ID number for everyone in the country, Aadhar („š¸¸£) will be a powerful instrumentality for helping the poor establish their identity to meet the banks' KYC norms. This will reduce cash and non-cash transaction costs both to the banks and to the potential customers. The UID is another powerful illustration of harnessing technology for the benefit of the poor.

17. Fourth, we have asked every domestic commercial bank – public and private sector – to prepare its own Financial Inclusion Plan (FIP) and have it approved by its Board. Our aim in this respect is two fold. First, each bank should have ownership of its FIP. Second, we want each bank to build on its comparative advantage. We want banks to be innovative and entrepreneurial and try out their own models and experiments consistent with their business models.

18. The FIPs are meant to be rolled out over the next three years and are required to include indicators for performance evaluation. RBI has held meetings with the chairmen of banks to review the FIPs prepared by them. These meetings, chaired by Deputy Governor Dr. Chakrabarty, have enabled a clearer understanding of issues in financial inclusion. The discussions revealed that the main challenge is to ensure that the no-frill accounts actually become operational. Because of dire poverty, the account or the branch services are rarely or minimally used. Banks agreed that, for the FIPs to succeed:

- scalable technology solutions should be in place;
- the RRBs should also be core-banking enabled;
- business correspondent model coupled with biometric technology needs to be deployed;
- performance criteria of staff should include achievement of financial inclusion targets; and
- connectivity issues need to be sorted out by service providers.

Role of technology

19. Let me now revert to the role and importance of technology for financial inclusion. Financial inclusion efforts to date have been driven through two distinct channels: smart cards and mobile phones. One issue that often comes for debate in this regard is the need to ensure interoperability of technological solutions. I am told that efforts are afoot to achieve this. It is, however, important not to miss the wood for the trees. The priority clearly has to be to facilitate "inclusion" first. "Interoperability" is no doubt important but it can follow. Clearly inclusion cannot wait for interoperability to happen.

20. The second issue relates to the choice of a model for mobile banking. World over, there are two distinct models – the "bank-led" model and the "mobile operator-led" model. The Reserve Bank has a clear preference for the bank-led model. This is so for at least two important reasons. First, we want our financial inclusion to be more than just a remittance facility; we want our customers to get minimum services like deposit insurance, access to affordable credit and the payment system which only banks can offer. Second, given the growing concerns about money laundering and financing of terrorism, a bank led model is decidedly safer and more sustainable. We do recognize that mobile telephony has an important role in the value chain and we are keen that mobile service providers collaborate with banks to provide value added services.

Technology in banking – the way forward

21. Let me now look ahead and flag a few important issues in the use of technology in banking and how it can be an aid to value creation.

22. The deepening of the use of technology in banking requires that it be accompanied by good "IT governance" which is a sub-set of good corporate governance. Banks must put in place robust risk management systems encompassing effective infrastructure, security policies, incident reporting and business continuity management. Also, these management systems must be subject to regular review and monitoring. Needless to say, as businesses expand, the risk from a failure in IT systems expands disproportionately faster, reinforcing the need for good IT governance. There have been instances where some banks could not participate for more than a day in the NEFT/RTGS product offerings for several reasons – problems in the internet channel interface going unnoticed, data clean-up in the database not getting adequate attention, ignoring hardware sizing aspects, delaying the decision to move to the back-up site, and the like. Greater management attention can easily fix these flaws. That is why IT governance is important.

23. The second priority issue on the way forward is the quality control of data and its use for improving banking efficiency. The hierarchy of transition is from data to information to knowledge to wisdom. Technology enables banks to collect voluminous data pertaining to customers and transactions. As most bank branches, including those of RRBs, are coming under the core banking platform, it is important not to be swamped by this deluge but to process the data into useful information for management through robust MIS and decision support systems. This becomes particularly relevant in the context of internal rating models and fraud detection techniques where extraction of patterns from data is the sine-qua-non. The Reserve Bank attaches a lot of importance to ensuring the quality of data, its processing into useful information and the flow of that information to the appropriate level. To streamline this, the Reserve Bank has formed a group comprising experts from banks, IDRBT, IBA and RBI to study the information reporting system of banks and to suggest an approach for automated data flow in a straight-through manner from the source systems of banks to the Reserve Bank.

24. The next priority issue on my list is protection of information and customer confidentiality. There are growing concerns about the increase in cyber crimes, phishing related frauds, identify frauds and misuse of customer information and the like. Threats from skimming, sniffing, spamming, spoofing, etc., are all increasing. Some of you may be aware of recent instances of several people getting defrauded through the so called prize winning schemes where names of prominent institutions are being used to lure remittances of large amounts of money by promising millions in return. I am informed that these monies are often being paid into banks' accounts by gullible people and then siphoned out. Even if such accounts are opened after following KYC norms, the unusual pattern of these transactions can be easily discerned if banks use appropriate technologies for this purpose. It is in this context that in our Monetary Policy Statement for 2010–11, we proposed setting up a working group on information security, electronic banking, technology risk management, and tackling cyber frauds.

25. Next on my list is the several ways IT models can be used to improve the efficiency of banking – for example, for credit appraisal using the score card model, for determination of provisioning to be made against loans and for handling millions of low value accounts without compromising on underwriting and supervisory standards.

26. Last, and possibly the most important on my list of priority issues is the need to guard against what can be called a "technology barrier" between the bank and the customer. As we all recognize, technology is a great enabler and provides us huge opportunities for making banking more efficient and more inclusive. At the same time, it is also faceless, and this absence of a "human touch" can be quite intimidating, if not threatening, to those just entering the banking network. Banks should, therefore, take extra care to ensure that the

poor are not driven away from banking because the technology interface is unfriendly. This requires training the banks' frontline staff and managers as well as business correspondents on the human side of banking.

IDRBT as facilitator

27. Before I close, I will be amiss if I do not acknowledge the impressive contribution of IDRBT to "techno-banking", if I may use such a phrase now. IDRBT's initiatives in developing the INFINET, its contribution to the establishment of a messaging platform (SFMS) and a shared ATM-network (NFS) have added immense value to our banking sector. IDRBT's performance as a certification authority, as an R&D centre and as an institution for training and education have marked great advances in the Indian financial sector.

28. The Rangarajan Committee which had gone into the issue of repositioning IDRBT for the next decade has since made valuable recommendations. These relate to:

- need for thrust on research and development activities with a clear focus on the areas of research that should be taken up in the next 3 to 5 years time;
- revamping education and training activities with the aim to develop technically competent and in-house expertise in banks to efficiently supervise and manage technology-intensive resources like data centres, data recovery centres, corporate network, etc.;
- becoming a member of global technology standard setting bodies active in the area of banking; and
- developing a cadre of faculty focussing on technology requirements of the banking industry.

29. We are working on implementing these recommendations.

30. As I noted earlier, Indian banks have come a long way in using technology to improve the reach and efficiency of banking. What they have done is laudable because they have adapted the best international technology practices to the Indian situation. I want to compliment them for what they have achieved and for their efforts towards addressing the challenges on the way forward.

Task for IDRBT

31. We are gathered here today to recognize outstanding performance in the use of technology in banking. Hearty congratulations to the winners today. I hope these awards will encourage further innovations and competition towards improving efficiency. I also wonder if we can benchmark banks' performance in the use and adoption of technology against some international standards, especially in the area of financial inclusion. I would urge IDRBT to work on this.

32. Finally, I want to compliment Shri Sambamurthy and his dedicated team of faculty and staff at IDRBT for their important contributions to the financial sector. My thanks also to the members of the Governing Council of the Institute whose expertise and guidance has been the backbone of IDRBT's performance and achievements.