*Moving Towards Technology-led Excellence in Banking**

Anand Sinha

Shri Sambamurthy, Director IDRBT (Institute for Developement and Research in Banking Technology), Executive Directors of banks, members of faculty from IDRBT, ladies and gentlemen. It gives me immense pleasure to be delivering the keynote address in today's workshop '*Beyond Core Banking*' and I thank IDRBT for giving me the opportunity.

2. In today's technologically advanced environment, Core Banking Solution (CBS), does not remain an edge anymore, but has become the basic prerequisite for any bank. Building on this, banks need to move on to adapting higher technology in order to provide better products and upgrade their risk management systems. As we become global, banks would need to become technologically more sophisticated in diverse areas, whether it is moving towards adopting advanced approaches in Basle II or in upgrading their delivery channels for providing better customer service.

3. Whether large or small, traditional or non-traditional, regional or global, all banks now face a similar competitive imperative. Short-term survival and long-term success require simultaneous focus on often conflicting priorities: reducing operating costs, driving new sources of revenue and building capital. Growth can be achieved through innovative customer-friendly strategies to stem the reduction of the customer base and to grow deposits. This all must be accomplished in the market which is getting extremely competitive. While the competition is a fact of life and banks need to be geared up for the same, the competition is going to intensify in the coming days, both from traditional competitors (banks) and also from non-bank entities. Though the regulatory focus is on reducing the arbitrage, the current crisis has taught us that the shadow banking system is increasingly becoming an important constituent of the financial system. Banks need to innovate and improve their efficiency to remain competitive and the role of technology in this regard is very critical.

4. Indian banking industry, today, is in the midst of an IT revolution. The Indian Banking fraternity is adopting the latest technological advances to address the threat of competition and to meet customer expectations. A combination of regulatory and market forces has supported the implementation of technology and automation in the Indian banking industry.

5. IDRBT has been facilitating and catalysing technological developments in the banking sector and I must compliment Shri Sambamurthy and his team at IDRBT for organising this workshop on the theme of '*Beyond Core Banking*', which is very timely. I am sure the participants of this workshop would return with enriched knowledge of the various technological opportunities available to banks.

6. In my remarks today, I would like to highlight how banks can make concerted efforts to enhance the use of technology in their initiatives to ensure efficiency, stability, competition and above all deliver on customer service. Before I go to my main talk, let me briefly touch upon the functions performed by IDRBT.

Standing Tall – Contribution of IDRBT

7. The functions that have been performed by IDRBT in research and product development are commendable. Since its formation, IDRBT has played the dual role of a service provider as well as a research facilitator providing an enabling environment for testing the technologies that have been useful for the banking industry.

8. You may be aware that based on the recommendations of External Expert Review Committee headed by Dr. Rangarajan; there has been a shift of

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focus of the Institute, towards conducting applied research and experimental development in the area of banking technology. During the last one year, the Institute has released frameworks and handbooks on issues relating to IT Governance, Information Security (IS) Governance and Analytical Customer Relationship Management (CRM). I am sure, banks would immensely benefit from these publications.

'Beyond Core Banking'

9. ***Beyond Core Banking*** is the main theme for this workshop. At this juncture, let me pose a few questions on this issue:

- Why are we talking about '*Beyond Core Banking*'?
- Why now? and
- What's the way forward?

10. I would attempt to answer the second question first, as it is easier. The time is now ripe for banks to look at initiatives beyond their core banking. Banks have adopted Core Banking Solutions which are comprehensive, integrated yet modular, that effectively address the strategic and day-to-day challenges faced by banks. They provide much-needed flexibility to innovate and adapt to a dynamic environment. So to speak, banks have reached a certain level of maturity as far as adoption of Core Banking Solutions is concerned. Isn't it time for them to look for strategies that would assist them in moving to the next level?

Coming to the first question, let us look at why '*Beyond Core Banking*'?

11. Core Banking Solutions are comprehensive in nature as far as transactional banking is concerned. But banks would need to look beyond core banking in order to stand out from their competitors, work efficiently and manage their risks better. Banks would need to look to avenues '*Beyond Core Banking*' to serve their customers, devise an appropriate strategy to deal with the IT threat landscape, utilise the technology platform provided by CRM, analytics & big data. They may also look to manage their information in an effective manner, enhance Customer Lifetime Value (CLV). They need to innovate appropriately in terms of products, services and strategies so as to stand out from the competition that is prevalent today. Banks will also need to align their IT and business perspectives to fully leverage on the benefits of technology.

Coming to the third question: What's the way forward for the banking sector?

12. The way forward for banks would be to focus on enhancing their profitability, lowering operation costs, and/or creating greater customer loyalty. In this context, I would briefly speak on the areas that are engaging the attention of banks and banking researchers alike and these could be areas that the banks can focus on, in the next few years.

Let me present a few of these in the following paragraphs.

Excellence in providing Customer Service

13. Good customer service is the heart of banking. The current crisis has brought customer centrality to a sharp focus. While it may not be the direct lesson from the crisis, the importance of customer service in retaining the customer base with a view to maintaining a stable source of funding is a lesson that can be deduced from the crisis. The wisdom is that banks may look towards adopting a 4'C' approach as a guiding principle for evaluating their future strategies to address the dynamics of customer demands. The 4 'C's are – Consolidation of services offered by banks, Customisation of products and services for customers, Convenience of transacting and Concern for customers. Banks may look at bringing about a balance among the 4 'C's.

IT threat Landscape – Taking Stock

14. There are hundreds of new online threats every month and they are highly organised and financially motivated. Threats have also become more difficult to detect and remove, than ever before. As technology has evolved, so too has the nature of the threat, and today malware forms the backbone of the global cybercrime epidemic.

15. The threat landscape has evolved dramatically since the emergence of the first virus, and IT security is now challenged by thousands of different malicious tools, with malware and spam now driven by self-propagating botnets. The malware trade too, has evolved from something of a prank when it first began, to a business conducted by cybercrime networks expressly for the purposes of financial gain.

16. The growth of the Internet and increasing connectivity has fuelled the expanding complexity and reach of threats. From malware that first attacked individual computers and then individual networks, to threats that targeted multiple and regional networks, the threat landscape now encompasses the global infrastructure and attacks are increasingly targeted. Zero day threats are a reality, as cybercriminals are using viruses to target financial institutions through spear phishing and 'denial of service' attacks amongst others.

17. Countering the array of threats in the modern IT landscape requires a two-fold approach. While anti-virus, anti-spam, intrusion prevention, firewalls and other security software have a vital part to play; this technology simply is no longer enough on its own. Awareness and education are key in preventing users and organisations from falling victim to cybercrime.

18. We must also understand that the threat landscape now encompasses not only computers and networks but also an array of portable devices such as tablets and smart phones which increases the complexity. The more connected users become, the more vulnerable they are to attacks that can affect the entire home or business network. The reality is that the Internet is not a private space anymore and users need to educate themselves and be more vigilant to prevent malware and cybercriminals from causing serious reputational and financial damage.

Mapping the future– CRM and Analytics, Big Data, Channel Innovation, *etc.*

CRM (Customer Relationship Management)

19. With the growth of fee-based income and increasing focus on advisory services, the role of CRM in banks is now more critical and pivotal than before. Given the competitive nature of the banking business today, with its intricate and diverse demands, nurturing and deepening customer relationships is integral to any bank's success. After all, satisfied customers are loyal customers and their retention is very important for any bank.

20. Banks would need to focus on creating a customer centric culture right from the ground level staff to the senior executives. While this is often easier said than done, customer centricity can be achieved through a strong top management focus, comprehensive communication and training programs that teach employees on how to use CRM applications and the benefits of doing so, along with appropriate incentive policies. For a CRM strategy to succeed it must involve cultural and business changes and it needs to be a business strategy and not a technology solution.

21. CRM is a continuous process – it is a journey, not a destination. To be successful in this arena, banks need to embrace CRM as a philosophy and adopt a strategy for managing customer relationships that effectively address three key areas: people, processes and technology. Even in the context of financial stability, CRM is important.

Power of Predictive Analytics– an Untapped Potential

22. Another issue that is evoking interest among bankers is the power of analytics. This can enable banks to get an edge over competitors. A few questions that banks can ask before embarking on using this tool could be the following:

- Can consumer behaviour be forecast?
- Can banks predict what their customers want, how they want it, before they raise a demand on it?

23. Banks can leverage the power of predictive analytics to forecast their customers' behaviour and foster demand generation. Many banks offer similar delivery channels, products and services to the market. In this process, customer relationships have lost the 'personal touch' despite the breadth of 'touch points' available to customers from the traditional branch to 'mobile' phone banking.

24. Predictive analytics can bring in competitive advantage in banking and analytics can be the core technology that helps banks move from product centric to customer centric operations. It would also enable banks to leverage and increase their Return on Investment from substantial investments already made in operational, data warehouse and business intelligence systems.

25. If these are all the advantages of using predictive analytics then why hasn't it been applied more broadly to personalise banking operations? May be the data is not available or collected, for analysis. The components and models of predictive analytics can easily be embedded in current business and software processes for bank operations, risk management and marketing.

26. This new breed of automated and advanced predictive and descriptive analytical tools is suited for today's fast paced business and can be embedded in enterprise applications. Customer intelligence can now be delivered to the customer at the time he is actually interacting with the bank, through the delivery channel of choice, with consistent advice based on predictions derived from enterprise data.Banks may tap the granular data and use these tools to price their products appropriately.

Channel Innovation

27. This is one area which acts as the differentiator among competing banks. Times continue to be tough for banks as they grapple with low consumer confidence and intense competition. Moreover, customers are flexing their muscles by demanding better service and experience from their banks and leaving them for another when they do not measure up to expectations.

28. The onus of delivery of service rests almost entirely with the banking channel. Which is why, channel innovation will play a crucial role in the future of banking. It could take many forms – a high-tech branch, a more intelligent ATM, a social media channel, cloud banking or a mobile phone that replaces both cards and currency, to name a few. Some of these may succeed more than others, but collectively they will reinvent the business of retail banking. The future of retail banking lies within its channels.

29. Talking about innovation, I am reminded of a quote by Albert Einstein who said:

> *'I am enough of an artist to draw freely upon my imagination. Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.'* To this, I would add that *it is imagination that drives innovation.*

Big Data– Big Power

30. These days everyone is talking about 'Big data'. What does big data actually mean, and how does it differ from data management? In an age where information is stored on many different systems, some of which do not 'talk' to one another, technology solutions for Big Data must integrate different technologies, data formats and coding structures including exception management, error reporting and audit trails. Banks would need sophisticated technologies that can perform business transaction-level logic such as cost allocation, revenue distribution and payments. The best solutions should be capable of adjusting these business processes rapidly and with minimal cost.

Information Management

31. Information, as we know it today, includes both electronic and physical information. The organisational structure of any bank must be capable of managing this information throughout its lifecycle, regardless of source or format (data, paper documents, electronic documents, audio, video, *etc.*) for delivery through multiple channels that may include cell phones and web interfaces. Information management is a corporate responsibility that needs to be addressed and followed from the top management to the front line workers in any organisation. Part of that responsibility lies in training the organisation to become familiar with the policies, processes, technologies and best practices in Information Management.

Customer Lifetime Value (CLV)

32. We must understand that the key to cultivating long term, highly profitable customer relationships is in understanding the concept of Customer Lifetime Value (CLV). Technically speaking, CLV is defined as the

net present value of future cash flows of the long-term customer relationship. The CLV focuses on the customer as the influencer of bank's profitability. The CLV gives the measurement ability to evaluate the new customers, not existing customers, who are to be targeted and to be attracted through marketing campaigns. It also gives the limit up to which the bank can spend for acquiring the new customers based on their CLV. There is a huge opportunity for banks to capture and enhance the CLV.

Making the Right Moves

IT and Business Alignment– Shall the Twain Ever Meet?

33. The concern with all industries including banks is the 'alignment of IT with the business.' Over the past quarter century, much has changed technologically. Yet, in terms of the gap between IT and the business, precious little is any different today. How can we change this?

34. Before commenting on this aspect, let us understand what is the alignment that we are talking about? Successful IT and business alignment entails more than executive level communication and strategy translation. Banks need to achieve alignment by establishing a set of well-planned process improvement programs that systematically address obstacles and go beyond executive level conversation to permeate the entire IT organisation and its culture.

35. IT must be agile to support the business needs. But the business side has a responsibility too. There needs to be a balance in the relationship between business and IT. IT must shake off the view that it is an end in itself and business must realise that it is not best placed to take technology-based decisions on its own. When there is alignment, business relies on IT, the enabler, instead of facing off against IT, the resource drainer. In such circumstances, the relationship between IT and business will be a strong driver of innovation. Banks would also require personnel with good insights in IT and domain knowledge so as to strike this balance. And this is where you as part of the management of banks can play a catalytic role between departments. Here I am reminded of Bill Gates who had once said *'The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life.'*

36. Before I conclude, I would like to briefly touch upon three IT initiatives taken by the Reserve Bank in the last one year which have a significant impact on the IT arena of banks.

Report of the RBI Working Group on Cyber Security

37. The Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds (Chair: Shri G. Gopalakrishna, Executive Director, RBI) has examined various issues arising out of the use of Information Technology in banks and made its recommendations in nine broad areas of IT Governance, Information Security, IS Audit, IT Operations, IT Services Outsourcing, Cyber Fraud, Business Continuity Planning, Customer Awareness programmes and Legal aspects.

38. The final guidelines in the areas as mentioned above have been issued and banks have been advised to implement the same in a time bound manner based on certain criteria. Given the fact the guidelines are expected to fundamentally enhance safety, security, efficiency in banking processes, the progress in implementation of the recommendations is required to be monitored by the top management of banks on an ongoing basis and a review of the implementation status may be put up to the Board of Directors of the Bank at quarterly intervals.

Automated Data Flow (ADF)

39. Reserve Bank collects various Returns from the entities regulated by it. Reserve Bank has already put in place an online returns filing system through which the banks can submit their returns. XBRL (Extensible Business Reporting Languages) taxonomies have been adopted for some of the returns. With the increased need of information for decision making, the quality of data submitted by the banks requires improvement which can be achieved if these returns are compiled by the banks directly from their IT systems. Towards this, Reserve Bank is aiming for complete automation of the returns by banks. This would ensure that the data submission is done in a timely manner and accurately

without any manual intervention. Banks would need to take a consolidated view of the XBRL and ADF projects as they are meant to complement each other.

IT Vision for RBI and banks

40. IT Vision Document of RBI 2011-2017, sets priorities for commercial banks to move forward from their core banking solutions to enhanced use of IT in areas like MIS, regulatory reporting, overall risk management, financial inclusion and customer relationship management. It also dwells on possible operational risks arising out of adopting technology in the banking sector which could affect financial stability and emphasises the need for internal controls, risk mitigation systems, fraud detection/prevention and business continuity plans. Although banks have deployed technology for transaction processing, analytical processing by banks is still in a nascent stage. The Vision document urges banks to work towards reaping benefits of technology in terms of cost reduction of small value transactions, improved customer services and effective flow of information within the banks and to the regulator. The Vision Document also focuses on the leveraging of benefits of adopting more energy efficient devices and architecture for tangible savings in energy costs and helping to build 'green' credentials to IT.

Scripting Success– Getting Started

41. To conclude, I would like to say that certain principles together with strong committed leadership, can deliver step-change business outcomes and measurable economic benefit for banks and help banks 'get started'. Broadly these would encompass creating a committed transformation program with Board level accountability, having a unified vision for a component driven business and preparation of suitable operating models, managing risk mitigation techniques using proven approaches and methodology, creating a roadmap by business and IT leadership with incentives for shared success, optimising the infrastructure that leverages modernised architecture and applications and ensure professional project management; and delivering capabilities based on a scalable engagement model.

42. Notwithstanding what has been said in the preceding paragraphs, I would say that technology alone will not solve issues or create advantages. Executives need to understand that true transformation is not solely driven by technology, but by business strategies and decisions. Technology needs to be completely integrated within the organisation in order to secure the acceptance of the final users. In this manner, technology can lead the way towards excellence in banking.

43. I wish to close by quoting Stewart Brand, the famous writer who said '*Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.*'

I wish successful deliberations in this workshop.