K C Chakrabarty: Connecting the dots

Address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India, at the 6th CII (Confederation of Indian Industry) BANKing TECH Summit 2011, Mumbai, 28 June 2011.

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Shri N Chandrasekaran, CEO & MD, Tata Consultancy Services Ltd., Shri Praveen Toshniwal, Chairman, CII Western Region, Mr Robert Lattimore, ED, Price Waterhouse Coopers (PwC), Shri Dev Ranjan Mukherjee, Head-CII Gujarat State, distinguished guests, friends from the media, ladies and gentlemen. I am thankful to CII for having invited me over to address the participants of the 6th BANKing TECH Summit 2011. At the outset, I would like to congratulate CII and PwC for presenting their report titled "Changing the rules of the game through technology" and I hope that this report would provide an insight into several challenges which technology seeks to address.

Technology is changing the cultural and business landscapes beyond recognition. You would agree that world over organisations are using the transformative power of technology to create business value for today, and step-function growth for tomorrow. And the Banking sector is no exception.

You would be wondering about the title of the speech and what is its relation to banking. I have taken inspiration from one of the quotes of Steve Jobs in his address to students of Stanford University and I quote:

> *"You can't connect the dots looking forward; you can only connect them looking backwards. So you have to trust…in something – or your gut, destiny, life whatever. This approach has never let me down, and it has made all the difference in my life."*

Can we not be inspired by this and work towards "connecting the dots" in our banking "space" to create a suitable business environment?

My speech today is divided into three main parts. In the ***first part***, I would be touching upon how banking in India has changed/evolved over the years, what the perceived benefits of technology usage are and the complex role of the Indian banker. In the ***second part*, I** would be speaking on the drivers of the next generation banking which would touch upon analytics, technologies (including disruptive ones) and current and possible trends in technology that can be used by banks which would emerge **as the game changers.** In the ***third part*, I** would be covering the recent technological initiatives of the Reserve Bank.

PART I

Introduction - genesis of the Indian banking system

The early 1980s were instrumental in the introduction of mechanisation and computerisation in Indian banks. This was the period when banks as well as the RBI went very slow on mechanisation, carefully avoiding the use of "computers" to avoid resistance from employee unions. However, this was the critical period acting as the icebreaker, which led to the slow and steady move towards large scale technology adoption.

Over the years technological innovation in banking was meant to achieve a broader reach in terms of consumer banking and continued inclusive growth, to meet the demands of households and businesses, movement from "class" banking to "mass" banking and quick transmission of information inexpensively and conveniently. We have moved a long way from the age of mechanization in the Indian banks to the present age where banks are successfully experimenting with disruptive technologies.

Perceived benefits of technology usage

It was expected that technology adoption would enable the banking sector to be integrated with the global financial markets, adopt international best practices and ensure delivery of superior customer service. It was also envisaged to result in greater productivity, profitability, and efficiency; faster service and customer satisfaction; convenience and flexibility; and space and cost savings. It was presumed that robust and reliable services would be delivered to their customers at a lower cost, as well as help banks to make better decisions. IT usage was also expected to result in improving process integration and flexibility, decreasing operational exceptions that climb through the management hierarchy, thus, freeing up management time for decision making.

But has this happened? Have the banks been able to deliver what they were expected to deliver with adoption of technology? The answers to these questions are not very encouraging. Often the inhibiting factors attributed to this would be poor strategic alignment between business and IT strategy, absence of appropriate and re-engineered business processes and delivery models, lack of project ownership, poor risk management, ineffective resource management and missing governance principles.

Also the human resources in banks were drained as they have not done appropriate Business Process Re-engineering before implementing IT projects. Further, the banks lacked in possessing business and IT plans to leverage technology for increasing business and profits. Last but not the least, banks have not used information for MIS and Decision Support systems.

Complex role of the Indian banker - manage financial inclusion and CRM

The role of the Indian banker is very challenging. At one end of his spectrum lies the demand to achieve financial inclusion as nearly 50% of the country's population is yet to be covered under the formal system of banking and at the other end lies the task to fulfill the needs of the existing customer.

Customer Relationship Management - completing the picture

A bank which closely integrates its technology strategy with its business strategy can certainly hope to reap the benefits of CRM as it would help the bank to select and reach the target customers using the right channels, understand the value of the customers to the bank and optimize service quality, "sense and respond" to customers' needs through appropriate cross-selling and up-selling tactics besides re-selling opportunities.

Banks are realizing the need to understand their customers like never before. Today's customer expects – actually demands – to be treated as an individual Consumer and business depositors will be more valuable to the banks than ever before; failure to communicate with these customers at the right time, through the right channel, with the right offer will slowly wear away the client base. Further availability of a single view of customer would also facilitate the banks. The earlier they realize and accept these issues, the faster they would be able to face competition from their counterparts. The need of the hour, therefore, is to be awake and alive to the needs of the masses and to ensure that benefits of technology percolate to even the weakest of them. As the saying goes *"the strength of the chain is determined by the weakest link".*

Strength of the chain - financial inclusion

I am sure this gathering of bankers needs no introduction to financial inclusion. Today, the concept is an integral part of every banker's responsibility with the focus being on "inclusive growth". With increasing adoption of technology by banks, it is but natural that all stakeholders expect benefit from it. But is it fair that the fruits should be enjoyed only by those who have access to it or those who can afford it? This in fact has been focus of the Government – Central Bank commitment to IT-enabled financial inclusion. Setting up of the Financial Inclusion Technology Fund as well as urging the banks to formulate a board approved Financial Inclusion Plan for three years up to March 2013 are some of the initiatives in this direction. Besides resources and strategic planning, the next obvious focus area is the delivery model and this is where technology provides value. We need to remember that we should work towards bringing nearly 400 million citizens to the formal fold of the banking sector. It is not just about opening "no frill" accounts. As of today, 75 million "no frill" accounts have opened but there are hardly any transactions in them. Banks need to work towards providing a full range of financial services and this would need a low cost, reliable, easy to use and secure technology backbone linking 6 lakh villages in the country in the next 4/5 years.

The first priority is to get all banks on adopting Core Banking Solution, including all RRBs. ***Next*****,** a multi-channel approach using handheld devices, mobiles, cards, micro-ATMs, branches, kiosks etc. can be used. However, it should be ensured that the transactions put through such front-end devices should be seamlessly integrated with the banks' CBS.

Often a multitude of operational issues are quoted as reasons for lagging behind in financial inclusion targets. Till such time complete technology integration can take place on all fronts, there are bound to be areas where intermediate brick-and-mortar structures need to be in place. Even with Business Correspondents issues arise regarding their supervision, customer grievance redressal etc. Certain accounting issues in this regards are also being addressed. All these operational issues and many more can be resolved if banks begin to look at financial inclusion as a business opportunity rather than an obligation to fulfill their CSR objective.

One final observation before I move to Part II. Banks have to realise that for Business Correspondent (BC) model to succeed the BCs who are the first level of contact for customers have to be compensated adequately so that they too see this as a business opportunity**.** ***Is this happening?*** To my mind the answer is in the negative. Similarly as regards MSPs (mobile service providers) acting as BCs reports reaching us still suggest that the true spirit of co operation is yet to stabilise with each still trying to destabilise the other. The entire world is looking at this experiment in India and I would urge all of you to get your acts together.

PART II

Drivers of next generation banking - game changers

The first decade of this century is behind us and with it, we have seen the euphoria of growth and also the despondencies brought by the global financial crisis. We have seen that technology alone cannot be the panacea for all evils. There is a serious responsibility thrust upon us, and technology – the next generation technology – should be able to help us navigate our way forward. Some of such key drivers which would evolve as *game changers* are mentioned below.

Identity management

UIDAI can emerge as a major *game changer* as it would transform the management of identity of citizens into a digital mode. By its usage, customer acquisition and service can dramatically improve. Banks would, therefore, need to innovate and build systems around UIDAI architecture to deliver full range of financial services. The requirements of adhering to the Know Your Customer (KYC) norms of banks may become easy if a citizen acquires an Aadhar card.

Competition

Interalia, keen competition among banks as also IT solution providers and BCs would necessitate devising unique business strategies and demand that the banking industry develop a robust next-generation architecture to enable customer-centric IT. Thus competition would stand out as *a game changer.*

Use of analytics

Analytics can hold the key to optimized performance, informed decisions, actionable insights and trusted information thus emerging *as a game changer.* By bringing together all relevant information in an organization, banks can answer fundamental questions such as:

What is happening? Why is it happening? What is likely to happen in the future? How should we plan for that future?

Banks can use analytics in a big way for Business Intelligence encompassing simple querying and reporting mechanisms that improve decision-making, Analytical Applications using data models, process workflows etc., Financial Performance and Strategy Management comprising budgeting & planning and scorecards and Advanced Analytics including data mining, predictive modelling, "what if" simulations etc. Banks may also look at carrying out "Sentiment analysis" to better understand internal customer data and understand perceptions about bank's brand, products and services, and identify problems with customer experience so that banks can act efficiently and effectively.

Plugging the weak links - prevention of frauds

Banks themselves hold the most powerful weapon to predict and prevent fraud – data and hold a rich trove of information about customers, transactions, accounts and broader trends and patterns. The effective use and analysis of that data *can become a game changer* as it can identify fraud patterns, anomalies and common data points that reveal associations between fraudulent accounts and group fraud activity. Banks must deploy the most powerful analytics available, consolidate data and various fraud components, and make use of multilayered detection technology. After all, it is just good business to protect the most important asset of banks i.e. customers.

Big data – big promise

Big data is one of the recent technology trends that is catching up. This catch phrase encompasses the data, tools, platforms and analytics needed to turn large repositories of internal and external data into trends, statistics and other actionable information to help in taking their decisions. As costs fall and new ways to correlate data are devised, Big data analytics may become commonplace thus surfacing as a *game changer.*

Alternate channels - role of the social media

Social media is a blending of technology and social interaction for the co-creation of value and this can emerge as *another game changer*. It is one evolving channel that might help banks to generate insights on customer attitudes and preferences, which can be used to inform marketing campaigns and help deliver better customer experiences. For banks, use of the social media has its pros and cons. One influencer can drive thousands of potential customers to a website. However, that same influencer can spread his or her dissatisfaction, causing erosion in brand equity and profitability. Regardless, embracing social media may not be a choice for banks as of now; though it is an imperative. Fortunately, as social media has evolved, so too has the technology to understand users and their networks. The myriad benefits that come from analyzing social media data include product and service quality improvements, assessing customer sentiment and uncovering fraud rings. Banks can tap into the root of what social media means to the community, enjoy success by way of returning real value for their institutions.

Customer value innovation

Customer experience is no longer the sole domain of the branch. It exudes in everything we do, and customers are demanding a better experience across the bank. An emerging field in customer experience and behavioural research and marketing is the area of value innovation which can be an *eventual game changer*. Innovation of the customer experience is no longer a choice but a necessity and more importantly a competitive weapon. An Innovations group or network created across the bank can be a useful tool to generate new ideas. Here I recollect the quote of Jeffrey Immelt, CEO of General Electricon the subject of innovation and I quote:

> *"The only source of profit, the only reason to invest in companies in the future is their ability to innovate and their ability to differentiate".*

Current and possible future trends in technology

Before I move over to Part III of my speech, I would like to talk about the current trends in technologies. It is likely that cloud computing would still remain a medium-low priority. It had been estimated that globally, emergence of new technologies such as back office virtualisation, mobile telephony and Service Oriented Architecture (SoA) will reduce absolute spending on IT. You are all aware that Mobile telephony is pervasive with close to 700 million subscribers and is ubiquitous. And therefore, Mobile banking has the potential to emerge as a game changer in terms of costs, convenience, and speed of reach. Business models of banks, telecom operators and other stake holders need to converge.

All the above would stand out as major game changers in the future.

PART III

Recent initiatives taken by the Reserve Bank in the area related to technology

I would like to draw your attention to the recent initiatives that have been taken up by the Reserve Bank in the areas relating to technology.

IT vision for the Reserve Bank - 2011–17:

The Reserve Bank has released its IT Vision document for 2011–17. The major recommendations of this document relate to transforming the RBI into a knowledge organisation, using IT as a strategic resource, IT governance and environmental friendly initiatives (including green computing). The Vision Document also 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 the possible operational risks arising out of adopting technology in the banking sector which could affect financial stability and emphasizes 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. Banks may work towards reaping benefits of technology in terms of cost reduction, improved customer services and effective flow of information within the banks and to the regulator. Steps have already been initiated to implement the recommendations as given in the Vision document.

Automated data flow

Banks have been advised to submit a roadmap indicating the returns which can be sourced directly from their systems to a centralized repository without manual intervention and then for submission to the Reserve Bank. It was also decided to prescribe a quarterly monitoring format in which the banks were advised to certify the list of returns which have been internally generated from the IT source systems without manual intervention.

Next generation RTGS (NG-RTGS)

The existing RTGS system, even with all upgrades, is not in a position to handle increasing volumes due to various limitations with regard to scalability, flexibility and adaptability to technological advancements. Further, there have been developments globally regarding features and functionalities. Therefore it was decided to replace the application to a higher level by using the latest technology and redefined business requirements.

Report of the Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds

The above Report examined various issues arising out of the use of Information Technology in banks and made its recommendations in nine broad areas i.e. ***IT Governance, Information Security, IS Audit, IT Operations, IT Services Outsourcing, Cyber Fraud, Business Continuity Planning, Customer Awareness programmes and Legal aspects*.** The objective of this Report is to serve as a common minimum standard for all banks to adopt as well as lay down the best practices for banks for a safer and sounder banking environment. The final guidelines in the respective areas as mentioned above have been issued to banks for implementation.

Keeping the customer’s perspective in mind, banks would need to ensure that they implement solutions that exploit the latest available technology to build their applications/solutions to ensure customer’s delight as also proliferation of banking services; albeit the cost of providing adequate security. Having said this, I would caution the banks that unless they keep them simple, they run a risk of losing their customer base to their competitors. It is also imperative that redundancy or alternate service delivery channels are available to the customer. We need to give a thought about this and provide workable systems at the earliest if we have to retain the customer within the fold of the banking system.

Developments in IT have also brought along a whole set of challenges to deal with. These include rapid changes in technology, complexities, high costs, security and data privacy issues, new laws and regulations and inadequate trained manpower. There is a need to enhance the governance of IT and institute robust information security measures in the banking sector based on extant international standards and best practices. Given the instances of cyber fraud in banks recently, it is necessary to improve controls and examine the need for pro-active fraud risk assessments and management processes in commercial banks. Banks must also work towards ensuring dissemination of the IT security policy and procedures and related parameters amongst all operative functionaries of banks.

Summary

How can banks achieve enhanced customer profitability? A bank can take the first step, which is to consolidate and streamline customer segment data. With accurate, segmented, easy-to-access data, analysis tools can be used to develop strategies and models, determine appropriate sales channels, calculate value measures, and set targets to advance the profitability of each customer segment and individual customer. When the process is running smoothly, the bank can use business intelligence and planning technologies to monitor the success of its initiatives and feed the information gained back into a continuous improvement cycle; thus riding its way to success and meet its growth and customer profitability targets.

Banks should move towards setting new standards that would enable them to attract, retain, and service customers with superior speed, efficiency, and satisfaction. In the banking industry use of Information Technology (IT) is omnipresent. From acquiring a customer, servicing the customer's needs, building the customer relationship to managing employees, processes and partners, every action in the bank's value chain relies on technology to ensure efficacy and efficiency. Retail banks that will survive and thrive in the current economic climate are using new technologies and channels to grow revenue from basic services, such as deposits and loans, by understanding customer needs, providing relevant products and services cost-effectively and calculating the unique lifetime value of customers to the institution.

I would conclude by posing the following three questions to the audience: ***Is it possible for us to make our banking paperless? Cheque less? Cash less?*** I know that the answers to these questions are not easy and nobody has a readymade answer. But this should put us on the track to think "differently" and think "Big". It would definitely take time to achieve the above goals but it is not impossible. Let me tell you that this is already happening globally. It is possible for us to leapfrog to achieve the above objectives? I hope it would be possible for the participants this Summit to deliberate on these issues and give some broad recommendations for the banking sector to emulate.

I wish the Summit a grand success. Thank you.