

## **K C Chakrabarty: Banking transactions in the next decade – faster, cheaper and easier**

Special address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India, at a panel session on “Transactions in the next decade: faster, cheaper and easier” at the ninth Federation of Indian Chambers of Commerce and Industry (FICCI) – Indian Banks’ Association (IBA) Conference on “Global Banking: Paradigm Shift”, Mumbai, 8 September 2010.

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Distinguished guests, ladies and gentlemen,

1. It is a pleasure and privilege to be here today at this ninth Annual Conference on “Global Banking: Paradigm shift” jointly organised by Federation of Indian Chambers of Commerce and Industry (FICCI) and Indian Banks’ Association (IBA). The theme of this year’s Conference is “Banking 2020: Making the Decade’s Promise Come True”. Let me begin by asking to whom are we making this promise. We are making this promise to the customers, especially the small and retail customers. Let me explain in brief the importance and relevance of this promise. We stand today at a point of inflexion as far banking is concerned both globally as well as in India. Globally, the financial crisis has offered us a number of insights into the ways in which the existing banking system needs to be revamped. India, unlike its developed counterparts, has been far less affected by the recent turmoil but still has a long way to go in terms of achieving a sustained higher and inclusive growth. And for the Indian economy to achieve this goal, banking sector would undoubtedly need to play an extremely critical role. But, for that to happen, banks need to optimally leverage technology to increase penetration, improve their productivity and efficiency, deliver cost-effective products and services, provide faster, efficient and convenient customer service, and, thereby, contribute to the overall growth and development of the country. And in order to make the dream of growth coupled with inclusion a reality, Indian banking sector today needs to make a promise, a promise to the customer, especially the small and retail customer, and to the society at large, to make banking transactions faster, cheaper and easier in the next decade. This then brings me to the topic of my address today which is “Banking Transactions in the Next Decade: Faster, Cheaper and Easier.

2. Why banking sector should and can make such a promise now? First of all, because we have not been able to fully realise the promise of the last decade. We were constrained by our ability as, till a few years ago, appropriate banking technology was not available. But, now, with the availability of appropriate banking technology, the time has come when the Indian banking system can make and deliver on that promise.

3. Technology enables increased penetration of the banking system, increases cost effectiveness and makes small value transactions viable. Besides making banking products and services affordable and accessible; it simultaneously ensures viability and profitability of providers. Increased penetration brings further reduction in costs, which, in turn, attracts more people to avail the services. Technology allows transactions to take place faster and offers unparalleled convenience through various delivery channels. Technology enhances choices, creates new markets, and improves productivity and efficiency. Effective use of technology has a multiplier effect on growth and development.

4. The question then arises, have we not developed banking technology and delivery models over the last two decades since we embarked on economic reforms. The answer undoubtedly is in affirmative. There are a number of achievements that can be highlighted in the field of banking technology and banking transactions during the last decade.

## Achievements of the last decade

5. One of the major objectives of banking sector reforms in India was to promote flexibility, operational autonomy and competition in the system and to raise the banking standards in India to the international best practices (Reddy, 2002). There has been an all-round improvement in the health of the banking sector in the post-reform period especially during the last decade.

6. The adoption of technology has changed the face of the banking sector which can be seen from various transformational developments in the recent past. Core Banking Solution enables banks to extend the full benefits of ATM, mobile banking, tele-banking, internet banking, and card banking, etc. to all customers. It allows banks to offer a multitude of services on a 24x7 basis from a single location as well as all possible delivery channels existing and proposed. The centralisation thus makes a “one-stop” shop for financial services a possibility. Using CBS, customers can access their accounts from any branch, anywhere, irrespective of where they have physically opened their accounts.

7. In the area of payment and settlement system, where technology impacts the customer transactions most, there have been significant advancements. We are one of the countries that has effectively tackled huge volumes of paper instruments in a cost effective manner. The MICR cheque clearing system processes a staggering 4.5 million cheques on a single day! The Cheque Truncation System (CTS) is another innovative solution that has been developed to enhance the efficiency of paper based clearing system. CTS has eliminated the need for physical movements of cheques. Speed clearing has been introduced by the Reserve Bank to reduce the time taken in clearing up-country cheques and take advantage of and leverage the core banking technology adopted by banks.

8. The advent of electronic payment modes has speeded up transaction processing and settlement. The NECS, with its centralised processing capability coupled with the implementation of Core Banking Solutions (CBS) has brought down the clearing and settlement cycle to its current T+1 basis. Electronic Fund Transfer (EFT)/National EFT (NEFT) is another illustration, where better process re-engineering coupled with CBS and strict adherence to NEFT procedural guidelines has made this product offer fund transfer service on a near real time basis to customers. Apart from these retail payment systems, we have the Real Time Gross Settlement (RTGS) for large value transactions. Thus what technology has done is provided speedier clearing and settlement of transactions, i.e. it has helped us in achieving to traverse a portion of the existing path faster.

9. Given this background, let me pose a few questions.

- How far has technology enabled us to provide faster transactions to our limited pool of customers?
- Has technology driven down costs for banks and customers?
- Have we been successful in using technology to make things easier or convenient for the customer?

10. Let me admit that much of what I would say is based on anecdotal evidence and there is a paucity of empirical evidence backed by hard data to conclusively answer these questions. Detailed research is needed in this area. Also, let us by definition not restrict a transaction to just clearing and settlement transaction but a wider term to denote a complete transaction from a customer’s perspective. This would typically include not only the time to complete the transaction but also the dispute resolution in case of failure. Then let us try to answer if technology has enabled faster transactions. The answer would be a “yes” as far as bigger customers are concerned. But, what about small and retail customers especially when there is a problem? If we take the average time of the successful, semi-successful and failed transactions, I am afraid that the answer to this question may well be “no”. To illustrate, I would recall complaints related to ATM transactions when account is debited and cash is not

dispensed. As you would be aware, charged with numerous complaints by customers and the inordinate delays faced by them for the banks to re-credit their accounts, the Reserve Bank has now imposed a mandatory timeframe of 12 days within which the customer's account has to be credited, failing which a penalty of Rs.100 per day is payable by the bank to the customer. In a CBS environment, why should reconciliation take such a long time leading to customer inconvenience and regulatory intervention on behalf of the customer?

11. I will illustrate with another example. Technology has provided us the comfort of internet banking from our desk tops. As a prudent security measure, the customer is logged out of his account after entering his password incorrectly three times. He then either goes to the branch or contacts the toll-free number for issue of a new password. But why does it take ten days to issue a new password to the customer and a further additional two days to activate the password after the customer duly authenticates and acknowledges receipt of the password? Is it not necessary that the whole process is speeded up substantially to enable the customer to start operating his internet banking facility at the earliest?

12. Has technology driven down costs for banks and customers? In order to provide various services banks have had to incur capital costs for various technology solutions. These include the implementation of the Core Banking Solution, putting up ATMs, providing connectivity between branches, etc. But with the implementation of state-of-the-art technological solutions, have the operating costs of banks come down? Logically, they should have over a period of time and then the banks should start deriving a return on the asset. Has this come about?

13. The Net Interest Margin of banks has not reduced much; especially when the structure of business has not changed. The Net Interest Margin (NIM), which reflects the difference between the interest earned and interest expended (as per cent of total assets), which stood at 3.37 per cent in 1992 declined to 2.95 per cent in 2000 and was slightly lower at 2.63 per cent in 2009 (Table 1). The ratio of urban and metro to total business has been increasing signifying that the structure of the business has remained same. During the period, the operating costs to total assets has come down gradually but not as drastically as one would have expected due to the introduction of technology. The intermediation costs of banks in India still tend to be higher than those in developed banking markets.

Table 1  
Key indicators of earning and expenses of Scheduled Commercial Banks,  
in per cent

Year	Net Interest Margin	Operating Costs to Total Assets	Urban + Metro Business/ Total Business (%)	Deposits per account (Rs)	Advances per account (Rs)
	1	2	3	4	5
1980	1.97	2.77	68.56	2688.77	11818.12
1992	3.37	2.65	64.50	6412.48	20757.03
2000	2.95	2.68	68.26	19898.01	84618.76
2009	2.63	1.87	77.63	59217.32	258751.28

Source: Statistical Tables relating to Banks in India, various issues.

14. Yet, the question remains how far has the customer benefited from this increase in income of banks. I would like to say that very little of the benefits earned by banks in today's liberalised environment have been passed on to the customers. There is enough empirical evidence to show that the cost of small transactions has not gone down. I will give only one example of low value draft issuance charges. Unless low-value transactions are cost-effectively done, it is not going to impact efficiency drastically.

15. As regards actual measurement of transaction costs, there are almost no studies which actually quantify in a systematic way the exact level of costs in financial transactions from a customer's point of view. Incidentally, I would like the IBA to look into this issue and initiate studies on a regular basis for understanding the cost of transactions for small and retail customers.

16. Have we been successful in using technology to make things easier or convenient for the customer? No doubt, technology has the potential to extend in a cost effective manner the penetrative reach of banking services and products to a large section of the excluded society. But let us look at some of the critical indicators for access to finance and performance and efficiency of banks in India along with benchmark indicators for selected high-income OECD member countries that are given in annex table 1. The penetration indicators reveal that there have been improvements during 2001–08 but is still very adverse as compared to OECD economies.

17. Is it any easier to open a deposit account? Can a person get a loan easily and quickly? I have numerous anecdotal evidences including the one by my domestic help who in a metropolis like Mumbai, spent two days of her labour time running around completing formalities to open a basic savings account with a renowned bank.

18. We all talk about single window operation in banks but has it really happened? Here, I would again to like to bring in my favourite example of the Indian Railways, a public sector organisation, which has managed to provide its customers with a single window service facility related to all transactions such as ticketing, cancellation, enquiry, etc. for any train, destination or class. Let us introspect and answer, have we as bankers come any closer to that?

19. I shall also draw your attention towards another aspect of customer convenience evidenced in the number of rising complaints. Data from the Banking Ombudsman offices show that number of complaints excluding credit card related complaints per 1 million accounts rose from 75 complaints in 2006–07 to 245 complaints in 2008–09. What is even more noteworthy is that if public sector banks had about 165 complaints per 1 million accounts in 2008–09, the corresponding figures for private sector banks was more than double at 377 (406 for new generation private sector banks) and 851 for foreign banks in 2008–09. Moreover, we have all the reason to believe that many of these complaints are received at urban and metropolitan centres, where the common persons are much more aware of such mechanisms of expressing their grievances. It is needless to stress that to make banking transactions more convenient for the customer, a quick and effective grievance redressal system is essential.

20. Thus, it can be summarized that the opportunities presented by adoption of technology could not be fully exploited and the customer still has not been able to enjoy faster, cheaper, and easier banking services. The obvious question then to ask is why this has not happened. I will draw upon my address last week at the Economic Times Banking Technology Conclave 2010 where I have identified the following reasons:

**a) *Absence of a strategic vision and action plan***

For a plan to succeed there must be a vision and strategy driving implementation. There is clearly an absence of vision of how technology is going to drive business and customer relationship. Thus technology adoption in banks is a result of external

pressures rather than a vision shared by the bank staff percolating right down from right up or a corporate vision of the positive externalities that will result. Consequently, this lack of long-term vision and strategy has impacted the way technology has been utilised.

**b) *Technology focus was not customer-centric***

Technology must be implemented with the customer in focus. Technology must enable customer facilitation in terms of cost, time and convenience. It should be dovetailed to customer needs and expectations. In sharp contrast, technology implementation in our public sector banks appears to be more for regulatory and policy compliance. This has oriented the banking technology to be more employee-friendly rather than customer-friendly.

**c) *Business process re-engineering was not done***

Business process re-engineering integral to leverage manpower for business growth and increased profitability, and cetirius paribus to derive optimum benefits of technology up gradation, has not happened at the desired pace. Globally, post technology adoption, only 10 per cent of the banking staff is involved in “back office” jobs and the remaining 90 per cent of the banking staff are freed for performing “front office” jobs of customer acquisition, servicing and retention by ensuring customer loyalty. The net result was tinkering with parts rather than the needed systemic overhaul that could have been achieved had the banks adopted a planned transformational management system.

**d) *Absence of simple cost effective delivery model***

We are yet to put in place a cost-effective, decentralised and realistic delivery model. Fledgling delivery models are being tried out experimentally. Fixing a problem / glitch when it happens is the weakest link. This issue is even more important considering that increasingly larger number of hitherto un-banked people will interface with the banks through hand-held/ mobile front-end devices. The credibility of the entire system will be at stake and take a hit if the problems are not promptly resolved as they arise and real time solutions are not proffered.

**e) *Information and technology was segregated***

There was no business and IT plan to leverage technology for increasing business and profits. IT should help banks not just to deliver robust and reliable services to their customers at a lower cost, but also generate and manage information effectively. Information comprises data collected based on principles of integrity, reliability, and accuracy. Banks are collecting humungous quantities and warehousing volumes of data relating to customers and transactions. The information is not subjected to meaningful analysis, usage and creation of a database with an objective to meet not only the diversified internal and external MIS requirements but also using this information to increase the volume of profitable business using unique techniques of Customer Relationship Management (CRM). It would not be wrong to say that “Information” from “Information Technology” is missing.

**f) *Non-availability of infrastructure***

Banking penetration through ICT models or otherwise requires some basic infrastructure to be in place. There needs to be robust digital and physical infrastructure for banking services to reach un-banked and inaccessible areas.

**g) *Lack of collaborative efforts***

Since, the challenge is huge, a planned, strategic and massive concerted effort is needed from all stakeholders which was not well appreciated earlier. It is now well recognized that taking banking to the masses and providing cheaper, easier and faster service requires a greater collaborative effort which was lacking earlier.

19. So what then is the way ahead and what should we do? I have five major observations to make about the way we need to envisage banking or financial technology in the years to come. This naturally draws upon the reasons that I have just narrated above which in my opinion have hampered the full benefits of technology being leveraged by banks for fuelling growth and development.

- a) An integrated IT plan and Business Plan and an integrated IT and Business strategy is a must. A long-term vision and strategy on how technology can be harnessed to deliver on business goals needs to be framed and percolated down the organisation.
- b) Appropriate technology and efficient Delivery Model: All our efforts would not bear fruit if technology issues are not addressed first. Till today, not all commercial bank and regional rural bank branches are under CBS. Scalable financial inclusion cannot happen without stable and reliable Information and Communications Technology (ICT) based models. The transactions through the hand held front end-devices should be seamlessly integrated with banks' back-end servers. In our interaction with the banks, we are stressing that the technology aspects deserves our immediate attention. We need to closely analyse whether any technology/vendor/ systems shortcomings is hindering the optimal beneficial utilisation of CBS both for centralisation of the back-end processes and information processing capabilities. Banks must refine their Delivery Models for greater effectiveness and efficiency. BC based delivery model has been made more flexible and inclusive.
- c) Technology has to be customer-centric in every sense of the term. It has to be a technology driven towards drawing in the entire mass of small and retail customers into the banking system. As we know that globally 90 per cent of the banking staff is involved in "front office" jobs of enhancing customer base and ensuring customer loyalty. In India, however, the situation is exactly the reverse.
- d) Proper IT Governance structure: Technology should not only reduce cost of transactions and improve the delivery model but also help banks generate and manage information effectively. In order to strengthen the delivery channel, banks need a comprehensive Customer Relationship Management (CRM) solution which would enable them to access the entire customer details and provide a unified view across channels and products to enhance service quality. For CRM to function well, we need to develop IT governance structure, which can provide effective control on the existing IT infrastructure created by banks. This would ultimately result in enabling better alignment between IT and Business, create efficiencies, enhance conformity to internationally accepted best practices and improve overall IT performance of banks. An important aspect of IT governance is the need to address enhanced security concerns associated with technology. We need to ensure that information and technology are integrated.
- e) Collaborative efforts by all stakeholders: It is essential to create shared interests and proactive involvement of all the players. Even after all these efforts, banks alone will not be able to do it if all stakeholders like Governments, both Central and State,

Regulators, NGOs, Technology Vendors, Industry Associations, Insurance and Mutual Fund Companies, and society at large are not involved. Big technology players have to come forward to facilitate this process and develop hardware and software appropriate to our country.

## **Conclusion**

20. In conclusion, I would like to say that the progress made by banks during the last decade is commendable. The health of the banking system is strong, they have adopted technology, and are making efforts at increasing penetration. However, the benefit of technology has not percolated to common people. As a result, banking transactions have not become cheaper, easier and faster due to deficiency in delivery model, absence of BPR, as also lack of infrastructure. What is needed at this stage is a planned, strategic and massive collaborative effort from all stakeholders to leverage technology in an effective way, bringing more people into banking fold, reducing costs and, thereby, ensuring benefits of technology indeed results in cheaper, easier and faster transactions, particularly for our small and retail customers. I hope the deliberations of this conference will identify the issues, work out an action plan and implement them so that the banking system can truly deliver on its promise for the year 2020. This will go a long way in ensuring a sustainable and inclusive growth in the society.

Thank you for inviting me here to share my thoughts with you all.

## Annex

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Table 1

### Getting finance indicators for India, 2001–08

Indicator	2001	2002	2003	2004	2005	2006	2007	2008	Benchmark (OECD)
<b>Access to finance</b>									
Demographic branch penetration (branches per 100,000 people)	6.42	6.33	6.25	6.26	6.33	6.37	6.35	6.6	10–69
Demographic ATM penetration (ATMs per 100,000 people)					1.63	1.93	2.4	3.28	47–167
Deposit accounts per 1000 people	416.77	420.84	418.67	426.11	432.11	442.87	459.52	467.35	976–1671
Loan accounts per 1000 people	50.99	53.93	55.84	61.88	71.42	78	83.59	89.03	248–513
Geographic branch penetration (branches per 1000 km <sup>2</sup> )	22.18	22.26	22.41	22.57	22.99	23.46	24.13	25.49	1–159
Geographic ATM penetration (ATMs per 1000 km <sup>2</sup> )					5.93	7.11	9.11	12.68	1–437
<b>Performance and efficiency</b>									
Return on Equity (%)	13.8	17.3	21	23	16.9	17	17.31	17.34	1.90–28.10
Return on Assets (%)	0.9	1.1	1.5	1.7	1.3	1.31	1.43	1.57	0.10–1.80
Staff Cost Ratio (%)	68.1	64.7	62.1	60.17	58.29	56.9	54.54	51.55	14.87–54.63
Net Interest Margin (%)	2.98	2.66	2.85	3.07	3.07	3.01	2.99	2.61	0.40–3.55

Source: Getting Finance in South Asia 2010, Kiatchai Sophastienphong, Anoma Kulathunga, The World Bank.

Note: The Benchmark Indicator ranges are for selected high-income OECD member countries (Australia, Canada, France, Germany, Italy, Japan, the republic of Korea, New Zealand and the United States).



Table2  
Trends in operating expenses/ ratios

	2002	2003	2004	2005	2006	2007	2008	2009
Operating Expenses as percentage of Total Assets (%)	2.4	2.4	2.4	2.3	2.3	2.1	2.0	1.9
Other Income to Total Assets	1.6	1.9	2.0	1.5	1.4	1.1	1.4	1.4
Deposits per account (Rs)	25532.19	28609.12	33058.01	37421.68	43108.28	50020.21	55873.93	59217.32
Advances per account (Rs)	116333.52	127072.80	132597.08	149378.22	177190.19	206168.83	225907.46	258751.28
Urban+Metro Business/ Total Business (%)	68.96	69.05	71.23	71.99	74.97	76.70	76.83	77.63

Source: Basic Statistical Returns of SCBs in India.

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