Case Study

A Transition From Traditional Banking to Virtual Banking System: The Indian Case

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It is almost 20 years since the Indian banking sector was liberalized and paradigm shift happened in the Indian banking services. All banks have either totally implemented 'Core banking Systems' or halfway through Indian markets provide growth opportunities, which are unlikely to be matched by the mature banking markets around the world. New information technologies and emerging business forces have triggered a new wave of financial innovation -Virtual banking (e-banking). In the modern customer centric competitive arena, satisfaction, quality and loyalty prove to be key factors reciprocally interrelated in a causal, cyclical relationship. The higher the (perceived) service quality, the more satisfied and loyal are the customers. In particular, financial institutions (i.e. banks) realized the strategic importance of customer value and seem to be continuously seeking innovative ways to enhance customer relationships. In fact, as the offers of many financial services are very similar and slightly differentiable, loyal customers have a huge value, since they are likely to spend and buy more, spread positive word-of mouth, resist competitors' offers, wait for a product to become available and recommend the service provider to other potential customers. The focus of this paper lies in the simultaneous consideration of the perceptions of both financial service providers and their clients for the management of long term marketing relationships, in which social bonds play a very important role. Firstly, the paper will try to investigate which dimensions are important in customer relationship with the banks. Then, the paper tries to study the effect of social network in establishing long lasting relationships that will minimize the customers' switching costs, according to the perceptions of both relationship bankers and their clients.

Keywords: Customer Satisfaction, Loyalty, Retail Banking, Social Network

Introductio

Indian banks have a chequered history. From the Dark Ages to the present day Digital age, journey of mankind has come a long way. World has become a global village in true sense because of technological advancement. Never before in the history of mankind have ordinary human beings felt so much empowered yet helpless, connected yet isolated, informed yet ignorant .In the third world countries the process of globalization (dictated by World Bank and the international monetary fund) started in the year 1990. The 90s saw the banking industry embracing technology in a massive way, led in particular by the new private

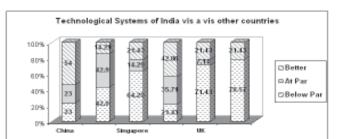
banks and MNC banks. Among these series of technology innovations, Internet banking for the retail segment is a recent phenomenon that has generated a lot of interest in the Indian banking industry.

Though adoption of Internet by Indian banks and their customers would not set the Arabian Sea on fire, no one can deny the obvious benefits that this service offers. Costs of banking service through the Internet amount to a fraction of the costs through conventional methods.

Industry estimates assume teller cost at Re 1 per transaction, ATM transaction costs at Re 0.45, phone banking at Re 0.35, debit cards at Re 0.20 and Internet banking at Re 0.10 per transaction. Says V K Ramani, president, information technology, UTI Bank, another of the early adopters, "No wonder, the cost-conscious banks in the country are now actively considering using the Internet as a channel for providing services. People were sceptical about even ATM at the beginning, but look how it has picked up today." However, he warns that banks cannot expect instant returns, unless the Internet population itself does not reach a critical mass. Besides, he also feels that fully computerized banks, with better management of their customer base are in a stronger position to cross-sell their products through this channel. Private and foreign banks have been the early adopters while the PSU banks are also beginning to latch on to the bandwagon. In the same year, Indian government headed by Narsimha Rao of congress party liberalizes the Indian economy. The market got flooded with western goods like branded clothes, shoes, watches, toiletries, mobile phones and satellite channels with MTV connection. The Indian customers (especially youth) felt excited at the prospects that now they can ape the west (which they are) but the realization of less disposable income at their end still kept them at a distance from those glamorous malls. Sensing the opportunity, private bank's mushroomed in the cities offering various credit card options and promoting the western culture of "Buy now, Pay later in parts".

Technology Driven Indian Banking

The two letters which has changed the way businesses operate has been IT as an acronym for Information Technology. No other facilitating service has resulted in such large scale benefits as Information Technology. IT has become such an essential ingredient of one's way of life in today's world that it is difficult to imagine a world without IT. And no other sector has benefited to such a large extent as the financial sector, with the Banking sector in particular, from the inroads made by IT. The Banking sector is no exception to this changing scenario which is sweeping across the world Technology has given birth to a new era in banking. Technology can be the key differentiator between two banks and a major factor to attain competitive edge. Though slow in the beginning, Indian banks seem to have paced up in adoption of advanced technology, as is evident from our survey results. Technological systems of Indian banks have rated more advanced than China and



Source:FICCI, Annual Survey Report

Most of the banks have already started to feel the impact of the operations of the new banks in the country. The single biggest advantage of these banks is the large scale deployment of IT in their business endeavors. Their business processes have necessitated that IT should provide solutions to various bottlenecks and problems and the result has been that IT has transcended well as an integral part of their regular operations.

Russia; at par with Japan, but less advanced than Singapore, UK and USA.

In the case of the older banks, however, it is paradoxical to note that even now IT drives the way the organization functions and not vice versa. The changes staring at the face of bankers all relate to the fundamental way of banking – which is undergoing a rapid transformation in the world of today. It is widely recognized that the core banking functions alone do not add to the bottom line of banks - value added services are slowly but steadily emerging as a substantial opportunity for banks to exploit and customers would not hesitate to use such services in view of the convenience they offer. Prime factors necessitating these changes relate to the forces of competition, productivity and efficiency of operations, reduced operating margins and the need for better asset - liability management.

One of the major challenges faced by banks is the impact of competition and the falling margins in the transactions undertaken by them. With wafer thin profit margins being the order of the day, the solution to this would lie in increasing volumes well beyond a critical mass so as to result in better operating results for banks. Technology which facilitates handling increased volumes at higher levels of efficiency. It is in this context that there is an imperative need for not mere technology up gradation but also integration of technology with the general way of functioning of banks. It is well recognized that technology holds the key to the future success of Indian Banks since it is Information technology which has brought in a sea change in the way banking is being conducted today which is but an indication of the morrow. It would be beyond anybody's imagination to even think about conducting banking business anywhere in the country or using a powerful yet simple medium such as the Internet even from roadside kiosks. But today this is the reality -which owes its credit to the rampant exploit of IT by banks. And concepts such as 'Anywhere Banking' or 'Automated Teller Machines' are but offshoots of technology implementation by banks, as also Internet Banking and Mobile Banking. Such innovations have had a positive impact on customer service – but the fundamental benefit that is derived by banks relates to reduced costs of operation – such as in handling cash and in servicing customers efficiently and accurately over the counters of branches. The large scale proliferation of IT in the Banking sector has also brought into focus many challenges which have to be overcome by us. A major attitudinal change which is required is the need for a change in the concept relating to treatment of customers of banks - with the collapse of geographical distances, banks need to treat the customer as a customer of the whole bank and not as a customer of any particular branch. This is now possible thanks to the usage of IT in a large scale whereby centralized data bases are possible in a bank with decentralized access. Another option to achieve this is objective is to have clustered solutions in a bank with data of customers residing in these systems. Banks need to constantly look for innovative services which offer customers the convenience of transacting from anywhere, at any time and using delivery channels more suitable for them. These are frontiers which would add value to the services offered to customers and at the same time act as a means for increasing the profits for banks too. One of the most significant areas where IT has had a positive impact is on substitutes for traditional funds movement services. With the advent of electronic banking, electronic funds transfer and other similar products, funds transfers across different constituents is now easily possible – within time frames which would have appeared impossible a few years ago. It is this area which is a big challenge to banks. Many new players are entering into the arena of funds transfer services and the pride of place enjoyed by bankers is under severe threat. The competition is not just from organizations performing funds transfer services but from other seemingly unrelated channels such as service providers for message transfer, quick delivery of instruments and the like who all facilitate the movement of funds based messages at speeds faster than before. The lines between corporate communication carriers and banks are now blurred so that doubts arise where one ends and another begins. Information Technology (IT) innovations in the last few years have changed the landscape of banks in India. Today, IT seems to be the prime mover of all banking transactions. Electronic and Information Technology together are bringing a swift change in the way banks operate, especially offering better delivery channels and customers' friendly services. Anywhere banking, telebanking, mobile banking, net banking, automated teller machine(ATMs), credit cards, debit cards, smart cards, call centres,CRM, data warehousing have totally transformed the banking industry.

Bank Name	Technology Vendor	Service Offering
ABN AMRO Bank	Infosys (BankAway)	NetBanking
Abu Dhabi Commercial Bank	Infosys (BankAway)	ADCB NetLink
Bank of India	I-flex	BOIonline
Centurion Bank	Logica	MyCBOL
Citibank	Orbitech (now Polaris)	Citibank Online
Corporation Bank	I-flex	CorpNet
Deutsche Bank		db direct
Federal Bank	Sanchez	FedNet
Global Trust Bank	Infosys (BankAway)	ibank@gtb
HDFC Bank	i-flex/ Satyam	NetBanking
HSBC		Online@hsbc
ICICI Bank	Infosys, ICICI Infotech	Infinity
IDBI Bank	Infosys (BankAway)	i-net banking
IndusInd Bank	CR2	IndusNet
Punjab National Bank	Infosys (BankAway)	
Saraswat Bank		
Standard Chartered Bank	In-House	Me Standard Chartered Online
State Bank of India	Satyam/Broadvision	onlinesbi.com
UTI Bank	Infosys (BankAway)	iConnect

Today almost all the major banks in India like ICICI Bank, UTI Bank, Citibank, Standard Chartered Bank, ABN Amro, SBI and PNB are offering online services to their customers. ATMs have emerged as the most favored channel for offering banking services to the customers in the world.

In India, currently, there are two types of customers – one who is a multi-channel user and the other who still relies on the branch as the main channel. The primary challenge for banks is to provide consistent service to customers irrespective of the kind of channel they use. The channels broadly cover the primary channels of branch (i.e. teller and ATM), phone (i.e. call centre, interactive voice response unit), and internet channel (i.e. personal computer, browser, wireless) banking. Banks in India have all set for transformed branches, enhanced telephone services, and internet banking functions. Even for PSBs, the ongoing and future investments are massive.

The PSU Saga

As in all forms of technology innovations, PSU banks have remained laggards in the race for adopting Internet banking practices. There are very few nationalised banks like State Bank of India, Bank of Baroda, Allahabad Bank, Syndicate Bank and Bank of India that offer Internet banking services. Some others like Union Bank of India, Canara Bank and Punjab National Bank are on the verge of doing so. SBI's Internet banking initiative, launched in July 2001, is in fact doing quite well and has over 18,000 registered customers across 150 branches. The enthusiastic response has encouraged the SBI management to extend the service to an additional 500 branches. But despite positive news like this, PSU banks still have a lot of catching up to do on the Internet banking services front.

DD Krishnamoorthy, deputy general manager, information technology, Bank of India says that

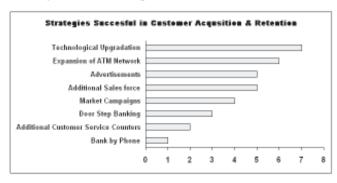
the primary reason preventing PSU banks from introducing online banking services, has been the absence of a legal framework to back up, and regulate Internet banking operations in the country. Though the Information Technology Act 2000 attempted to address a number of ecommerce regulatory issues, he does not feel that there still are several grey areas which have been spelt out properly, nor have the courts suggested workable modes of implementation. Though Internet banking is only an extension of traditional banking services, there are several instances which contradict the legal framework for this banking in India provided by a set of enactments like the Banking Regulations Act, 1949, the Reserve Bank of India Act, 1934 and the Foreign Exchange Management Act, 1999. However, not many are willing to buy the argument that it's the lack of regulations that is preventing the PSU banks from taking the Internet plunge. Says an industry analyst, "More than a lack of regulatory framework, it is lack of zeal and a mindset attuned towards resisting any new technology that is holding back the nationalized banks. On top of this, the highly politicized unions are also an impediment as they feel that Internet banking would expose the low productive levels of the workforce."

The average customer profile of PSU banks is also comfortable with the traditional banking system and is not too keen on adopting an online model. Typically, most PSU banks have the majority of their customer base in the smaller cities or towns and even in remote villages. Even in bigger cities, a large proportion of their customers are either senior citizens or at least 50+ who have a natural aversion towards adopting new technology. This not the case with private or MNC banks, where the clientele is mostly urban-based falling in the 20-40 age group and who have a higher exposure to technology. Even the IDC survey seems to confirm this premise. Among the elite Internet banking users, that is, those customers who belong to Socio-Economic Class A1 (SEC A1) in the top five cities, it has been found that people access their account through the Internet once every week. Similarly users visit their ATM centre on an average of two times per week. The workplace happens to be the most favored place to access Internet for banking purposes. The home comes a close second while cybercafés take the third place. ATM in the close vicinity to the office is the most preferred place among users for banking. The users (24 percent) who access the ATM near their office mostly go during the first half of the day, between 9 AM to 12 PM, but most preferred time by all users (41 percent) is between 6-9 PM.

Consumers Insight: Success Path for Bankers

One of the biggest problems facing senior managers of banks today is attracting customers and attaining growth, often in an environment where products and prices among competitors are close substitutes. Traditional bases for differentiation, such as product features or cost, are becoming less tangible. So the management's are forced to look for new ways to appear attractive to its target market and simultaneously retain the existing one.

Business strategies that have helped them in increased customer acquisition and retention (On a scale of 1 to 8 with 8 being the most important marketing strategy). The results of the Mode score being accorded by the Public, Private & Foreign banks are presented below:



Source: FICCI, Annual Survey Report

Technology has moved from being just a business enabler to being a business driver. Be it customer service, reducing operational costs, achieving profitability, developing risk management systems, we turn to technology for providing necessary solution. Technological up gradation was clearly identified as one of the most successful strategy in Customer Acquisition and Retention followed by Expansion of ATM Network, Advertisements and additional sales force.

Risk Management

The most prominent challenge among the above relates to the concept of security. With the delivery channels relating to funds based services - such as movement of funds electronically between different accounts of customers - taking place with the use of technology, the requirements relating to security also need to undergo metamorphosis at a rapid pace. Various concepts such as digital signatures, certification, storage of information in a secure and tamperproof manner like smart cards all assume significance and have to be part of the practices and procedures in the day-to-day functioning of banks of tomorrow . Customers of rural India must get the benefit through tailor-made technology solutions with different level of sophistication. They need a human face to interact with banks and back office processing done elsewhere. The Reserve Bank of India has taken upon itself the setting up of a safe, secure and efficient communications network for the exclusive use of the banking sector. Named the INFINET (for the Indian Financial Network), this network is already being used by a large number of banks for funds and non-funds based message transfers, and is made available by the IDRBTin Hyderabad. INFINET is perhaps one of the very few networks in the world which uses the latest in technology and security called Public key Infrastructure – PKI, which is not only robust but also well within the legal requirements of the Information Technology Act, 2000.The INFINET provides for inter-bank communication - which implies that banks have to now function as a group and at the same time competing with one another too. An effective security policy which would offer a shared vision of how the controls in the workplace should be implemented with the objective of protecting data, information and eventually, the economic value of the organisation. This has to be supplemented by education and training in these areas and reinforced by the actions and concerns of the top management so that a culture of security can be created. These controls have to be supplemented by surveillance, monitoring and auditing to detect unusual usage patterns and deficiencies. Inculcating greater levels of computer awareness among the operative staff at branches of banks by means of training and other means of exposure is a vital requirement. While this is being achieved by means of programmes conducted at the various training establishments of banks, additional inputs from professional technical organizations would bridge the gap which may arise between the levels of technology inputs offered by banks' own training institutions and the developments the world over. Yet another factor which is the driving force behind the use of technology in Banking relates to the benefits that technology offers - not only for the banks but for the customers as well. If technology has to be harnessed by banks to reap the benefits it offers, it is essential that the people who use technology are also adept in handling business using technology.

Road Ahead: Turnaround Success Strategy

Productivity and profitability are interrelated. Though productivity is not the sole factor, it is an important factor influencing profitability. The key to increase profitability is increased productivity. Public sector banks have not been as profitable as the other banks primarily because of two reasons – Low Productivity and High Burden ratio. Since the process of liberalization and reform of the financial in the financial sector were introduced in 1991, banking sector has undergone major transformation.. As per the IBA report "Banking Industry Vision 2010" there would be greater presence of international players in the Indian. The key to success in the competitive environment is increased productivity and profitability. Indian banks especially the public sector banks and the old private sector banks are lagging far behind their competitors in terms of both productivity and profitability with the exception of the State bank of India and its associates. The other public sector banks and old private sector banks need to go for the major transformation program for increase their productivity and profitability. To overcome these drawbacks private banks should chalk out a program to increase productivity. The underlying objectives of the reform will make the banking system more competitive, productive and profitable.

- Reduce overstaffing.
- Forge strategic alliance with the rural regional banks to open up rural branches and
- Increased use of technology for improved products and services for the same..
- Development and implementation of nationwide standards for smart cards including instructions on interoperability.
- Changes in the guidelines covering smart card issue: Along with the development of the abovementioned standards, the guidelines too must be modified keeping in mind the rural and in some senses a remote market segment.
- Eligibility of Clients: Banks should be allowed to issue smart cards to customers without a bank account or a history of savings and credit servicing. Such measures allow banks to reach out to the poorest of customers who in a majority of cases would have no banking history.

- Written reports and receipts: Though banks should attempt to provide receipts of transactions to its customers, such a condition should not be a compulsion on the bank especially when the bank is attempting to service large number of rural clients.
- Allowing appointment of third parties for banking: Banks can collaborate with third parties acting as agents to expand their outreach exponentially and provide doorstep banking to the rural population.

Conclusion

Indian public sector banks have a unique advantage over their competition in terms of their branch network and the large customer base, but it is the use of technology that will enable PSBs to build on their strengths. Foreign banks and the new private sector banks have embraced technology right from their inception and they have better adapted themselves to the changes in technology. Where as the public sector banks and old private banks have been slow in keeping pace with the changing technology, which is regarded as one of the major reason affecting their profitability and productivity. However, the future of banking will be one in which customers can address most of their needs through self-directed means and the key differentiator will be how effective a bank is in getting its customers online and deriving measurable value from this presence. One can sum up the whole Internet banking scenario with the adage, "For while winners may not see massive gains, the losers will fade from view as their ability to compete is eroded with every mouse click."

References

- 1 Brynjolfsson Erik (1993) "The Productivity Paradox of Information Technology", Communication of ACM, Vol. 36(12), p.67-77.
- 2 Choudhari, S., Tripathy, A. (2003-04) "Measuring Bank Performance: An Application of DEA", Prajnan, Vol. XXXII, No.4, p.287-304.
- 3 Dos Santos, B.L., Peffers, K.G. and Mauer, D.C. (1993) "The Impact of Information Technology Investment Announcements on the Market Value of the Firm", Information Systems Research, Vol.4, p.1-23.
- 4 Kohli and Sharer (2002) "Measuring Pay-off of Information Technology Investments: Research issues and guidelines", Communications of the Association for information Systems, Vol 9.

- 5 Launardi, L.G., Becker, J.L. and Macada, G.C.A. (2003) "The Impact of IT Investments on Banking Industry Performance and Evaluation: Evidences from Cross Country Analysis for Brazil, United States, Argentina, Uruguay & Chile".
- 6 Lichtenberg, F. (1995) "The Output Contributions of Computer Equipment and Personnel: AFirm-Level Analysis," Economics of Innovation and New Technology, Vol.3, p.201-217.Delhi *Business Review* X Vol. 8, No. 1 (January - June 2007)
- 7 Loveman G.W. (1994) "An Assessment of the Productivity Impact of Information Technologies".
- 8 Morrison, C.J. and Berndt, E.R. (1990) "Assessing the Productivity of Information Technology Equipment in the U.S Manufacturing Industries", National Bureau of Economic Research Working Paper #3582, January.
- 9 Off-site Monitoring and Surveillence Division (2002) *"Expenditure Pattern and IT Initiatives of Banks"*, RBI Bulletin, December, p.849-867.
- 10 Oral, M. and Yolalan, R. (1990) "An Empirical Study on Measuring Operating Efficiency and Profitability of Bank Branches", European Journal of Operational Research, Vol.46, p.1282-94.
- 11 Prasad and Harker, "Examining the Contribution of Information Technology Towards Productivity and Profitability in U.S.
- 12 Ramanathan (2003) "An Introduction to Data Envelopment Analysis", Sage Publications, New Delhi.
- 13 Robert, Dyson (2000) "Performance Measurement and Data Envelopment Analysis", OR Insight, Vol.13(4), p.3-8.
- 14 Soteriou, A. and Zenios, S.A. (1999) "Operations, Quality and Profitability in the Provision of Banking Services", Management Science, Vol.45(9), p.1221-38.
- 15 Vassiloglou, M. and Giokas, D. (1990) "A Study of Relative Efficiency of Bank Branches: An Application of Data Envelopment Analysis", Journal of the Operational Research Society, Vol.41(7), p.1591-97.
- 16 Z. Griliches and J. Mairesse (Eds.), *Productivity Issues in Services at the Micro Level*, Kluwer, Boston.
- 17 Zenios, C.V., Zenios, S.A. Agathodeous, K. and Andreas, C. Soteriou (1999) "Benchmarking of Efficiency of Bank Branches", *Interfaces*, Vol.29(3), p.133-51.