

HDFC Bank - Journey to Mobility

Malathi Sriram and Ullas Rao

Background

Way back, on 3rd Aug 2000 to be precise, in an exclusive interview with Rediff.com Money Channel, Associate Editor, Y. Siva Sankar, Managing Director Aditya Puri of HDFC Bank responded to a specific question on reinventing HDFC foraying into e-commerce and e-banking thus. He said “The good part is we don’t have to reinvent ourselves. We are still inventing ourselves.” He further added “Our vision is to use enabling technology to provide value-added services to our customers at value-for-money price point. So technology for us is not a support function, it is an integral part of our business vision. Now I won’t get into what others are doing or not doing. I’ll tell you what we are doing. And why it is not hype.”

Fourteen years later Mr. Puri who still heads HDFC Bank can boast of an IT architecture and Enterprize Mobility that is enviable and comparable to any state-of-the-art banking facility to its customers. Mr. Aditya Puri, is with HDFC Bank since its beginning in 1994. His vision was to create a “World Class Indian Bank” and he has succeeded in making HDFC Bank truly a World Class Indian Bank. Mr. Puri, a great advocate of technology and convenience banking, has used technology to change the way banking is done, that in turn has created a culture of excellence in the bank.

What is Enterprize Mobility?

Enterprizes today are turning technology to their advantage by using all possible means to delight and satisfy their customers. Essentially



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Research Centre for Management Studies (SDMRCMS),
SDMIMD, Mysore

The case writer(s) Malathi Sriram, Associate Professor – Systems and Ullas Rao, Associate Professor – Finance may be reached at malathi@sdmimd.ac.in and ullasrao@sdmimd.ac.in respectively Author(s) have prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of the situation. This case is fictionalized and any resemblance to actual person or entities is coincidental. This publication may not be digitized, photocopied, or otherwise reproduced, posted, or transmitted, without the permission of SDMRCMS, SDMIMD, Mysore. For Teaching Notes please contact sdmrcms@sdmimd.ac.in.

customers could also be internal as in the employees. While companies that need to service customers were quick on the uptake of adopting to mobile platforms for their services offerings, Banks and Financial Institutions have not been far behind. The reasons for the laggardness of adoption of mobile by Banks and other financial institutions were the security and privacy concerns involving the financial transactions of customers.

One of the biggest problems facing retail banks today is their inability to stand out in an increasingly commoditized and competitive marketplace. Few banks are innovating their services and are developing new products for the same. With technology being adopted in all aspects, banks are not able to connect with customers in a personalized way as the role of the branch continues to diminish. The technology although has created new delivery channels, and offering convenience, it has spawned an erratic and incoherent experience for customers. In the banking world, mobile, as a delivery channel was in its infancy a decade ago. And to give it its due even today, it remains one of the modern channels for banks to reach their customers. During its short life it has evolved and extended to a remarkable degree.

The omnipresent device in everybody's life the mobile, at first glance appears to be the least important service delivery channels that a retail bank uses for customer interaction and transaction. There are two reasons for this **a)** many customers are not yet familiar with the mobile's banking-related capabilities, and **b)** banks too are yet to completely realize the true potential of this channel. Despite this the percent of customers viewing mobile as important increased the most between 2012 and 2013 versus the other channels, reflecting mobile's growing prominence. By region, mobile's importance increased between 2012 and 2013 by 10% in Central Europe, 9% in Asia Pacific, and 6% in Western Europe. But the certainty that the mobile channel in particular will emerge as a primary competitive differentiator that banks will use to attract new customers and retain existing ones is steadily proving to be spot-on.

Rank	Country/Territory	Usage in 2012
1	 South Korea	47%
2	 China	42%
3	 Hong Kong	41%
4	 Singapore	38%
5	 India	37%
6	 Spain	34%
7	 United States	32%
8	 Mexico	30%
9	 Australia	27%
10	 France	26%
10	 United Kingdom	26%
12	 Thailand	24%
13	 Canada	22%
14	 Germany	14%

Figure 1 : List of countries by mobile banking usage

Source: Wikipedia.org

Introduction to HDFC

HDFC Bank (HDFC) was incorporated in August 1994 and currently has a nationwide network of 3,488 Branches and 11,426 ATM's in 2,231 Indian towns and cities.

HDFC began operations in 1995 with a simple mission: to be a **“World-class Indian Bank”**. HDFC realised that only a single-minded focus on product quality and service excellence would help them get there. For Mr. Puri, it was extremely gratifying that his and the team's

efforts towards providing customer convenience have been appreciated both nationally and internationally.

For the first time in India, its federal bank RBI 'in principle' gave approval to Housing Development Finance Corporation Limited (HDFC) for setting up the bank in private sector. This was as part of the RBI's liberalisation of the Indian Banking Industry in 1994. With its registered office in Mumbai, the bank was incorporated with the name 'HDFC Bank Limited'. The following year, it started its operations as a Scheduled Commercial Bank. HDFC was amongst the first to receive an 'in principle' approval from the Reserve Bank of India (RBI) to set up a bank in the private sector.

Mobile banking is gaining momentum in India. Banking transactions by customers have grown by 150% to Rs. 1,566 Crore in September-2013 from Rs. 625 Crore in January 2013. This is according to a recent Reserve Bank of India (RBI) report. In fact the total mobile subscribers have surpassed the bank accounts in India, said the report. Likewise, the total number of transactions grew by 29% to 7,169,429 in September - 2013 from 5,554,327 in January 2013.

The increase in number of smartphones and tablets has made mobile a favoured channel when it comes to banking transactions. Moreover, the introduction of various banking apps (software applications) have made mobile banking simpler for customers.

Mobile banking, as a new initiative was launched for the first time by HDFC Bank in the year 2000. Today, HDFC has it on varied mobile platforms such as iOS, Android and Windows.

Products & Services- Personal Banking

The Products and Services offered by the HDFC is listed below.

- Savings Accounts
- Salary Accounts
- Current Accounts

- Fixed Deposits
- Demat Account
- Safe Deposit Lockers
- Loans
- Credit Cards
- Debit Cards
- Prepaid Cards
- Investments & Insurance
- Forex Services
- Payment Services
- NetBanking
- InstaAlerts
- MobileBanking
- InstaQuery
- ATM
- PhoneBanking

Products & Services-NRI Banking

- Rupee Savings Accounts
- Rupee Current Accounts
- Rupee Fixed Deposits
- Foreign Currency Deposits
- Accounts for Returning Indians
- Quickremit (North America, UK, Europe, Southeast Asia)
- IndiaLink (Middle East, Africa)
- Cheque LockBox
- Telegraphic / Wire Transfer
- Funds Transfer through Cheques / DDs / TCs
- Mutual Funds
- Private Banking

- Portfolio Investment Schemes
- Loans
- Payment Services
- NetBanking
- InstaAlerts
- MobileBanking
- InstaQuery
- ATM
- PhoneBanking

Technology Convergence at HDFC Bank

Mobile banking in the recent past has grown to a noticeable extent although volumes of transaction have not been high. The volume and value increasing by 108.5% (53.30 million in 2012-13 vis-à-vis 25.56 million in 2011-12) and 228.9% (Rs.59.90 billion in 2012-13 vis-à-vis Rs.18.21 billion in 2011-12) respectively. The trend in usage of Mobile Banking in the last three years is given below:

Year	No. of Users (Million)	Volume (Million)	Value (Billion Rs.)
2010-11	5.96	6.85	6.14
2011-12	12.96	25.56	18.21
	(117.45%)	(273.139%)	(196.58%)
2012-13	22.51	53.30	59.90
	(73.69%)	(108.53%)	(228.94%)

Note: figures in brackets indicate the growth over the previous year.

Figure 2: Mobile Banking Usage (source- rbi.org)

HDFC Bank has always prided itself on a highly automated environment, be it in terms of information technology or communication systems. All the branches of the bank pride themselves of online connectivity with the other, ensuring speedy funds transfer

for the clients. At the same time, the bank’s branch network and Automated Teller Machines (ATMs) allow multi-branch access to retail clients. The bank exploits its up-to-date technology to create a competitive advantage and increase market share along with its market position and expertise.

In May 2003, when HDFC decided to interconnect its branches, it was looking for the most cost-effective method. The Hub and Spoke architecture proved to be beneficial in many ways. In Hub & Spoke architecture the branches are distributed under different regions and each major location has a regional hub. The branches under the location connect to the hub at the main region. These hubs then connect to the central site (data centre) using adequate bandwidth for the transactions that pass through.

The then Head-Information Technology, HDFC Bank Mr. C.N. Ram, proudly declared, “Each branch is connected to their regional hub, as to connect every branch directly to the data centre involves huge costs. This kind of architecture helps save cost.” (Mr. C.N Ram rose to become the CTO at HDFC. He quit HDFC and founded the Social Enterprize *RuralShores*). To balance the load and reduce the dependency on a single line, the bank has two hub locations within a region to share the load. The branches are split between the two hubs, so that one hub failure does not incapacitate all the branches in that region.



Figure 3 : M-Banking Facts (Sept 2012)

In April 2009 HDFC, announced its agreement with IBM India to build a cost-effective IT framework that will support the bank's strong business growth. HDFC Bank was the first private commercial bank in India to adopt the IBM mainframe and joined the ranks of the world's top 50 banks that continue to run on System z technology. HDFC did intensive homework before appointing IBM. This was only after evaluating the systems and technology from IBM and other vendors. Benchmark tests were carried out by the bank for its core banking application and systems on the IBM System z mainframe.

With this collaboration HDFC was able to maintain its critical credit card processing requirements in-house while offering robust and uninterrupted service to its customers. This also eliminated additional investments in data centre costs and offered interoperability to migrate other applications of HDFC, such as core banking, to System z mainframes.

The collaboration also benefited customers indirectly by having more features on existing credit card products, enabling quicker response times and higher processing speed. This collaboration with IBM scaled up its customer service which eventually led to more features on self-service channels like Internet. This tie-up also brought into focus the stellar track record of HDFC that has been using technology as the key focus element to its banking strategy - delivering significant operational efficiencies and cutting-edge customer solutions. In all their IT investments, HDFC has tried to seek a balance between adopting the most innovative solutions while keeping their investments as reasonable as possible.

Challenges & Pitfalls

The use of mobile banking applications has exceeded what banks anticipated and organisations risk service downtimes unless the banks have better aligned IT resources to support the customer channel, according to research from CSC Computer Sciences.

Without even getting into the overwhelming statistics of mobile subscribers and penetration in India, it is implicit that using the mobile channel for banking is economical compared to the other traditional banking channels. Thus there is need for banks to encourage the mobile banking channel in a big way keeping in mind the long term economic gains. As per Census 2011, only 54.4% of rural households had access to banking services and a little more than 41.3% of households do not have bank accounts. Indian Prime Minister Mr. Narendra Modi's vision of financial inclusion by having bank accounts and services for all may be partially fulfilled by mobile banking.

HDFC like any other bank in the space has faced many challenges in providing Mobile Banking to the customers. Challenges are essentially in two fronts – (1) Customer Acceptance related issues and (2) Technical Issues.

Customer Acceptance Related Issues Could be:

For the registration of customer mobile number with the bank, the Customer needs to physically go to HDFC Bank Branch for this process.

Generation of M-PIN for transaction security is the second factor of security. To get started with making mobile payments customers need M-PIN. M-PIN is received by customers either by postal mail or via SMS. A One-Time-Password (OTP) is also provided for more security.

One of the major factors affecting customer on-board in the usage of mobile banking services is the concern relating to security of transactions effected using the mobile phone. While mobile banking application is an end-to-end encrypted channel, the other access channels such as. SMS or IVR, are not end-to-end encrypted.

Educating Bank Customer-facing staff is an important aspect that HDFC understands. It periodically conduct refresher courses to ensure staff is abreast with latest developments in the fast paced technology areas in mobile banking.

Banks continue to invest in handholding and educating customers to increase the awareness of various aspects of mobile banking. HDFC invests in marketing and advertising for widespread promotion of mobile banking.

The Technical Aspects which are Posing a Challenge Relate to:

Access channels for transaction need to be continuously upgraded. This is a challenge since mobile platforms with newer features are released by the mobile platforms companies every 6-12 months. The applications need to be continuously upgraded to keep pace with newer compatible handset and operating systems

Coordination with Mobile Network Operators (MNOs) in mobile banking eco-system is necessary in order to offer a more secure and better user experience to their customers through their mobile banking channels. Banks need a greater level of coordination with the telecom service providers too.

During the financial year that ended March 31, 2014 HDFC has effectively migrated its Retail Core Banking System to the latest technology platform. HDFC migrated the remaining 60% of the Retail Accounts to this new technology platform. The new Retail Core Banking System is deployed on a more robust architecture, enabling HDFC to provide more features to its customers and respond faster to business and market needs.

Guidelines issued RBI had on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds provide recommendations for implementation. HDFC embarked on a program to implement these guidelines and has since implemented substantial portion of the requirements stated in the guidelines.

End Note

In the early 1980s, Aditya Puri faced up to his boss Nanoo Pamnani. Puri was then heading Citibank's Delhi operations. Pamnani was a tough task master and his frequent phone calls would stress out his colleagues. Puri set a condition, saying that Pamnani should stop

calling him. Mr. Puri said that 50% more than the profit will be ensured as returns. Pamnani (now Vice Chairman at Bajaj Finserv, a Bajaj Group company) says Puri gave him very little scope for being tough on him. Pamnani says “He achieved all his goals in the shortest possible time. He was always on the top of his job in terms of revenues and budget numbers.”

And that hasn't changed in three decades. Mr. Puri, who is till today the Managing Director at HDFC Bank, remains on the top of his job, making him the longest-serving chief executive of any private-sector bank in the country. Over this period, he has built from scratch a bank that is now the biggest in the country by market value and the seventh-largest by assets.

Strategically, HDFC has leverage its technology platform and open scalable systems to deliver more products to more customers and to control operating costs.

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