Foreword

In early 2015, I noticed the dramatic changes that were happening in financial services due to simultaneous trends in technology, regulation and markets. The rise of the smartphone, India's unique ID system Aadhaar, and payment innovations from the National Payments Corporation of India(NPCI), like Immediate Payment Service (IMPS) and Unified Payments Interface (UPI), were creating a new branchless distribution channel.

The Reserve Bank of India's decision to license many new banks dedicated to payments, was to bring in fresh, technology-savvy competition. And, the rise of platforms like Uber, fuelled by vast amounts of capital, were creating new data-based business models, which did not face the traditional pressures of making profits.

I connected all these dots in a presentation I made at a The Indus Entrepreneurs "Leapfrog" Conference in Bengaluru on 21 August 2015, on the imminent disruption of institutions like banks. It was called 'Are We at a WhatsApp Moment in Finance?'

In the 'start-up' city of Bangalore, the dominant narrative then was that these rapid and diverse changes in the environment would move too fast for incumbents, creating opportunities for agile challengers. I took a straw poll of the delegates, and the overwhelming vote was that the digital newcomers would overcome staid incumbents in the financial sector. Our young audience, however, had not taken into account HDFC Bank and Aditya Puri!

Unbeknown to the delegates of the Bangalore conference, the HDFC Bank MD had already made a visit to Silicon Valley, almost a year earlier in September 2014, to see the developments and innovations in technology and understand their impact on the banking sector. He came back convinced that HDFC Bank had to move fast and take advantage of this digital disruption. Aditya and HDFC Bank had been known to spot trends, and then execute plans at relentless speed, scale and with proper risk controls. This book narrates the transformation from being a start-up in 1994 to striding like a colossus across the Indian banking sector in a little over two decades.

Tamal Bandyopadhyay is one of India's most respected writers and columnists on finance. He tells the exciting tale of how HDFC Bank has transformed itself, especially in the past few years with its digital journey. It chronicles how India's most valued lender faced its most profound challenge—turning itself into a digital bank.

During his Silicon Valley visit, Aditya saw how the fintech companies—the new kids on the tech block—were getting into fund transfers, mobile banking and shopping. They could build products that could give quick loans, and provide a lot of convenience and a slick user interface to customers on their phones.

But Aditya realized that most of the fintech players were Over the Top (OTT) applications that sat on top of the traditional banks network, and their customer base and merchant relationships. They were sitting on top of the banks by using Application Programming Interfaces (APIs). A similar phenomenon had happened in the telecom sector where OTT applications like WhatsApp had sat on top of the telecom network and taken away the messaging traffic.

Aditya and HDFC Bank decided that they would rather disrupt themselves than be disrupted. And while they could provide far more convenience to their customers, they also realized that with full digitization they could reduce costs in their operations. It was truly a win-win situation.

Their strategy was to provide speed, use technology to do credit and risk management at scale, improve the consumer experience and apply Artificial Intelligence (AI) to massive amounts of data for prediction and decision making.

It was also important that the bank combines global trends in technology like smartphones, AI, the cloud, etc. with the state-of-the-art infrastructure that India had built as digital public goods—Aadhaar, e-KYC, Unified Payments Interface (UPI) and other elements of the India stack.

Before the digital leap, by November 2013, the bank had come up with 'missed call banking'. This was a simple way for customers to reassure themselves that their balance in the bank was safe. Customers keep checking their balances every now and then. Providing this as a free service on a phone was the first priority on the bank's agenda. While it had been done in India before, HDFC Bank was the first to implement it at such a large scale.

The early innovations at HDFC Bank included sending money over the phone with an app called 'Chillr'. The app had started with the payment platform from National Payments Corporation of India (NPCI) called IMPS, which provides instant electronic bank transfers through mobile phones and internet banking. Subsequently, with the launch of UPI by NPCI, HDFC Bank pivoted to this next generation interoperable payment platforms and provided payment services to platforms like Google Pay.

The bank has also used AI for many applications like chatbots, commerce bots and humanoid robots. Its chatbot, the Electronic Virtual Assistant (EVA), now handles 6,00,000 queries a month; it has completed 8.7 million interactions since its launch. AI is now being used in every part of the bank.

It has also moved to convert its internal 'systems of record' to 'platforms' so that any application or user could get access to a common set of capabilities through APIs.

This has enabled the bank to launch new products quickly that could be targeted across the country, at both urban and rural customers. For example, the 10-second loan is a genuine innovation that has enabled the bank to reach both existing and new customers, anytime and anywhere. This product, based on the principle of 'paperless, presence-less and cashless', is a great example of combining the traditional strength of the bank in credit underwriting and risk management with the latest technology. Today, around 30% of HDFC Bank's personal loans come from this product, with no increase in delinquency.

HDFC Bank has taken this innovative approach to car loans, loans against securities and loans against mutual funds. With increased data about small business coming after the implementation of the Goods and Services Tax (GST), and its technology backbone the GST Network (GSTN), similar products could well be rolled out for small business lending as well.

As a part of digitization, in 2015, the bank introduced a marketplace platform called SmartBuy, where everything would be available in one place. This functions as an aggregator, hosting links to various sites catering to shopping, travelling, etc. Customers have the advantage of discounts and reward points. Besides, they do not need to take the trouble of going to multiple sites for different products and services. Over a period of time, the platform has been integrated to allow the customers to compare prices as well. They can also purchase online and take delivery from a physical store, showing an e-voucher. There are approximately 3,000 to 4,000 merchants providing these services. The first bank in India to do so, HDFC Bank clocked ₹40 billion from this in 2018. The technology is simple and can be replicated, but it is able to leverage its huge merchant base.

The bank has also moved quickly into digital payments. Traditional PoS devices are being replaced with digital PoS machines that combine card payments with new generation payment systems like UPI and use Quick Response (QR) codes. This flexible architecture also enables HDFC Bank to target new markets for digital payments beyond merchants, like schools, colleges and hospitals.

HDFC Bank's transaction volumes are astonishing. On average, more than 20 million cheques are processed by the bank every month for a value of ₹1.5 trillion to ₹2 trillion. The electronic payment numbers are much bigger. The bank processes more than 50 million transactions in a month through the Real Time Gross Settlement (RTGS), National Electronics Funds Transfer (NEFT) and Electronic Clearing House (ECH)/National Automatic Clearing House (NACH) avenues combined, valued at ₹45 trillion to ₹50 trillion.

The value of transactions in trade finance is almost ₹800 billion a month and transactions in the capital markets have reached ₹500 billion per month – almost 50% of the market share. The retail asset instalment loans issued during an average month reaches ₹110 billion. Moreover, the digitization drive has meant that the movement of documents has been slashed dramatically and this has saved around 2 million sheets of paper every month. The cost-to-earnings ratio shrank to approximately 40% from 49% between 2012–2018. Expenses have grown at a slower pace compared with the revenue earned.

HDFC Bank is not the only bank in India which has understood the significance of digitalization. There are others such as ICICI Bank, Axis Bank, Kotak Mahindra Bank and a few other private banks, and even India's largest lender, the government-owned State Bank of India, are making rapid strides in this space but to HDFC Bank's credit, it has been a leader, and moving at a faster pace and with efficient implementation. Unlike in traditional banking products where HDFC Bank learns at the cost of others and does not play the role of a pioneer, in digital banking, it has been the pioneer. For instance, even as the Reserve Bank of India gave licences to 11 payments banks, HDFC Bank has already taken a leadership position in payments.

HDFC Bank has navigated the difficult transition from being a bricks-and-mortar bank to one which offers banking through both physical and digital channels, for a seamless experience for the customer. The future will, of course, be fraught with competition. With UPI, we are seeing many players in the payments space like Google, PhonePe and Paytm. E-commerce has seen the arrival of global giants like Walmart and Amazon. There will be no 'winner takes it all' markets, and every victory will be hard-fought. Only the paranoid will survive.

The gale of digital disruption has impacted every industry. The print media's revenues have been decimated by the rise of digital advertising. Physical retail is dealing with the onslaught of online retail, which in turn is using its data to provide automated retailing in the physical world. The entertainment industry is seeing their customers 'cut the cord' to go to new direct to consumer internet-based channels. The automobile industry is facing the simultaneous challenge of electric vehicles, autonomous vehicles and ride-hailing platforms. In the memorable words of the internet pioneer and venture capitalist, Marc Andreessen, "software is eating the world".

But HDFC Bank has shown that with an agile leadership which has foresight and flawless execution at speed and scale, even a giant bank can take on the nimblest of start-ups and become a market leader and pioneer. It is an object lesson on how incumbents in many industries can respond to the digital disruption that is staring at them!

Tamal combines his financial knowledge, eye for detail, and an excellent storytelling style to create a vivid portrait of India's most valued bank and its path to the future.

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