Financial Foresights

FICCI

January 2017

Leveraging the FinTech Opportunities in India

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About FICCI

FICCI is the voice of India's business and industry. Established in 1927, it is India's oldest and largest apex business organization. FICCI is in the forefront in articulating the views and concerns of industry. It services its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,0000 companies.

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Preface

Financial Foresights, the flagship quarterly publication of FICCI's financial sector team, provides a platform to industry, policy makers and other stakeholders to exchange ideas and views on important financial sector developments in the country.

The current issue of the publication focuses on the topic: 'Leveraging the FinTech Opportunities in India' and presents interesting propositions in the form of insightful write-ups contributed by both established and emerging players from the FinTech industry.

Technology today is changing at a rapid pace. Its application is changing at an even faster pace. One sector where application of technology has disrupted the traditional industry is the financial sector. This application of technology to capture and process data in real time and offer solutions not seen before is transforming how financial business is done, how products and services are conceived and how consumers participate in the process.

Financial technology — or FinTech — is ushering a transformation by reaching the unreached in a cost effective manner, with all time presence and least use of resources. This is forcing established financial sector players to evaluate their business models and think afresh on how to best serve the consumers who themselves are evolving at a fast pace.

It is usually felt that FinTech is all about digitising money. Our contributors to this edition show that there is more to it and that FinTech is about monetising data. By reducing information asymmetry in the marketplace, FinTech is not only improving the ability to match investors, lenders and borrowers; but providing a more level playing field that allows retail investors to have greater participation in the market. Innovative financial services such as robo-advisory have the potential to extend financial advice beyond high net worth individuals and more sophisticated investors, to a wider cross-section of the investors. And the frictionless operation of FinTech innovations such as block-chain and digital currencies are generating new value streams not just in financial services but across the economy.

As you go through the pages of our latest edition, you would agree that India is poised to become a potent FinTech force of the world. Some of the key enablers for FinTech in India are high adoption of technology, increasing internet penetration, enabling government policies, emphasis on financial inclusion and an evolving start-ups ecosystem. The catalytic power of FinTech and its potential to unleash a new era of competition, innovation and generation of jobs in our economy is enormous.

This issue, with contributions from both established & emerging names in India's FinTech sector, has attempted to analyse the potential of FinTech in India & how India can leverage it. We look forward to your views and suggestions and hope you will find this an interesting read.

With best wishes for 2017.

Dr. A. Didar Singh
Secretary General
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Industry Insights

Leveraging FinTech: Digital Payments Gaining Ground in India


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Globally conventional banking has been undergoing colossal changes in its structure and practices, thanks to the rise of technological innovation. The conventional role of banks is that of linking the dots between borrowers and savers being an intermediary. Commercial banks undertake a wide variety of activities, the three main[1] interrelated functions of commercial banks are holding of deposits; creating credit through lending and investment activities; and providing a mechanism for payments and transfers of funds for various productive activities. The extension of credit or lending is, thus, the principal activity of a commercial bank. However these functions are being challenged by multiple innovations. Technological innovation in finance is a blessing, while at the same time a challenge for developing or underdeveloped economies. Large population (population of India and China is 36% of world population), high mobile phone penetration and large unbanked population, commands the requirement of access to seamless and lower cost alternative financial channels. On the other hand, inequality, inadequate infrastructure, improper regulation and most importantly lesser employment opportunities are the major challenges for the policy makers.

The Indian financial system has not been able to completely serve the unbanked population, since it does not fit the traditional business model of commercial institutions. Several reasons have been cited, including lack of access to customers in far-flung places, low scale of operations, high transaction costs, and few customer walk-ins during working hours among others. Financial Institutions have also raised issues in knowing the authenticity of the customer, as typical KYC documents are often not available to rural consumers. While many commercial banks have stayed away from the unbanked areas, non-banking financial companies (NBFCs) have managed to successfully serve people in these regions profitably. However, India now offers an Aadhaar authentication framework, which covers over one billion Indians. This offers an opportunity to the newly introduced payments and small finance banks to reach out to unbanked sections - several small finance banks are already developing strategies to leverage their regional strength and reach out to select areas. Meanwhile, a report by Nasscom in partnership with Akamai opines, that India's internet users will grow over twofold to 730 million by 2020, and that 75% of the new internet users in India will come from rural areas. This will provide a further impetus for FinTech players to expand their market presence.

Besides the positive socio-demographics and being the fastest-growing major economy in the world, India is creating an architectural framework for newer players. This includes an existing eKYC (know your customer) system and the Aadhaar authentication framework, a signature and digilocker, the Unified Payments Interface - which

[1] *Lending and Investment Operations of Banks, RBI 2008.*

allows for swift payment across banks - and finally, a consent architecture system, where information is made freely available to anyone. Many individual pieces of the architecture exist, but they tend to be only in private hands. India is one of the few countries in the world which has put together a public architecture to enable this teleservices system.

The above has seen the emergence of several alternate players in the Indian financial sector. These new players are leveraging digital technologies effectively and innovatively, appealing to a large spectrum of the market segment. Mobile-based payment solutions and proprietary payment networks are driving merchant acquisitions, by offering low-investment solutions. Consequently, non-cash payment transactions, which today constitute 22% of all consumer payments, are likely to overtake cash transactions by 2023. A study by Google and Boston Consulting Group forecasts that the digital payments industry in India will reach USD500 billion by 2020.

But digital payments are still gaining ground in India, which is primarily a cash economy and suffers from intermittency in a digital infrastructure. Also, in a market like India, where regulations are still evolving, building trust in online payments remains a challenge. Thus, while the traditional banks understand the need to imbibe a digital infrastructure, they also know that whoever owns the customer will continue to drive pricing and product acceptance.

In the small business lending space, there are many new entrants that are willing to provide financing to small businesses. Most of these new entrants are in the form of merchant advances, in that they generally provide some time of cash advance that is generally paid back through charge volume, percent of sales or card sales. The new entrants underwrite an advance based on payment or sales history with a particular network. The lenders use proprietary softwares to aggregate data about a business' operations - including social media (e.g. likes, views, shares) - to underwrite the loans. A common theme that attracts all new entrants is that the underwriting and processing time is very short (as fast as 24 hours) with the advantage of an automated process.

Alongside using much faster internet speed, always-on Internet connections, big data computing, mobile connectivity, fast internet bandwidth and the universal adoption of smartphones, companies now have real-time access to financial information and transactions. This has led to the monitoring of multichannel payment processing, resulting in newer ways of evaluating credit applications.

Hence, given the various opportunities FinTech provides, it may be futile for traditional organisations to spend resources on in-house product development or R&D investments on a prediction of the future contours of an industry in a state of flux. It will be wiser for a financial institutions to focus on core competencies - for instance, identifying investment themes, assessing credit exposure, managing counterparty risk, or executing and settling financial transactions - and then tap into the FinTech pool for innovation that can support or expand based on the institution's core market. A company's service and brand metrics should serve as the primary guideline for selecting advanced technologies. However, changing any business model is difficult - and it is equally applicable for transforming into a FinTech-focused organisation.

In the event of mishanding, the transformation can easily create frustration for customers and the overall experience will suffer, leading to brand erosion. The degree of threat from FinTech start-ups will be determined by how well financial institutions do in defending their traditional turf of a large, loyal consumer base that values safety, trust and personalised services. That being said, the benefits of scale and a somewhat lethargic customer base will not hold off competition forever. If financial institutions do not respond to the call of improved digital solutions, that mirror the experience received at non-financial firms such as Amazon and Uber, there will be significant disruption in the industry.

Believing in the opportunity of FinTech coupled with the solid strength of conventional banking, it is logical to expect that in the years ahead, both traditional and non-traditional financial institutions will benefit from a 'co-operative' form of engagement and will accordingly forge partnerships in specific arenas. This is because both FinTech firms and legacy financial organisations have strengths and weaknesses in their models. Hence, for example, the banking industry will be dominated by banks that marry the benefits of a FinTech start-up with the advantages of a legacy bank. The biggest challenge will be for smaller institutions that may lack the culture, funding and innovation capability to respond to a rapidly changing consumer and competitor battlefield. The primary reason behind this may be the power of digitalisation on satisfaction scores, and the difficulty for smaller banks - which are not startups - to invest to the same degree as larger banks in these channels. Although it will not be impossible for smaller firms to compete, it will require strong leadership skills and a vision for the needs of a rapidly changing consumer. There is no doubt that FinTechs have provided an amazing customer experience, however, increased levels of cyber threats have the potential to cause disruptions in the services of these ventures, apart from risks related to sensitive customer information and internet frauds. It is therefore important to see how information technology systems and data security risks are monitored and managed. The regulatory framework applicable on FinTechs in India is at a nascent stage and their evolution would also be important in charting the way forward for disruptive innovations in the Indian financial space.

Massive innovation in the financial sector is necessitating a relook into role of regulators. Regulators should adopt pragmatic approach to stay ahead of the curve while dispensing their objective of consumer protection and fostering growth and innovation. In addition to other causes, there is other principal motive for financial innovation - regulatory arbitrage. Regulatory arbitrage can create space and scope for less regulated opportunities in the market, which incentivises for generating higher profits. "When there are completely free markets, there is not only freedom to choose; there is also freedom to phish" (Phishing the Phools, G. Akerlof and R Shiller). The role of the regulators is to correct market imperfections, at least economic cost. This is with the aim of improving the income distribution and thus improving the social efficiency of markets. For example, economic regulation would be used to limit the exercise of market power; information regulation would be used to correct information asymmetries. Advancements in the fields of technology and innovation will only make the task of regulator more complex, as lines get blurred across geographical boundaries, business operations and nature of entities. Cyber security increasingly necessitates regulatory synergies - as smooth information flow is critical for both preventive measures and early detection. The current, silo model of regulation in India in such a case is likely to result in insufficient economic outcomes - as the regulatory architecture will face issues of purview and scalability. To that end, regulatory synchronization will bring forth larger benefits of economies of both scale and scope. ■

Bhaskar Som, *Country Head, India Ratings & Research Advisory Services:* Bhaskar Som (PGDM - IIM, Calcutta, B.Tech (Mechanical) - IIT, Madras, FRM Holder), Country Head of IRR Advisory - a Fitch group company Bhaskar has over twenty years of cross-sector experience in strategy formulation, quantitative analytics and risk management. Bhaskar is a member of IMC's Export Competitiveness Council and was a member of the Expert Panel Group set up by Ministry of Finance for boosting infrastructure financing in India. Bhaskar has been a speaker at various FICCI, AIAA and ACMA forums on competitiveness, policy insights, innovative funding alternatives and banking trends.

Soumyajit Niyogi, *Associate Director - Credit and Market Research:* Soumyajit Niyogi, Associate Director - India Ratings & Research, a Fitch Group company Soumyajit has over a decade's experience in the financial markets. Prior to India Ratings, he has worked with SBI DFHI, renowned Hedge fund D E Shaw and Peerless General Finance in various capacities. He is a rate strategist with focus on Macro economic variables and market orientation. He has published thematic research on systemic liquidity, monetary policy, and other associated financial market developments. He is an MBA in Finance from ICFAI Business School.

FinTechs in India : Drivers of Digital Banking?

Dr. A. S. Ramasastri
Director, IDBRT

Unprecedented growth in the use of internet and incredible penetration of mobile has been changing the way we live. The Whatsapp has become the way of communication among large masses of the country, irrespective of age, gender, education background and social status. There is little doubt that these developments are making technology inclusion a reality. Technology inclusion can lead to financial inclusion if technology is appropriately harnessed to reach the large segment of the population, currently unserviced or underserviced.

It is precisely in this area that the FinTechs can play an important role in leading India to a digital nation and us to a less cash society. They can ride on the wave of widespread mobile penetration and large scale Aadhaar registrations.

In fact, there has been globally a perceivable growth in both the number of FinTechs and their contribution. Based on recent estimates, investments in FinTech companies increased from $1.8 billion in 2010 to $19 billion in 2015. Indian FinTech software market is forecasted to touch $2.4 billion by 2020 from a current $1.2 billion, as per NASSCOM study. As per Citi research report, the investments in FinTech companies are still less than 4% of the total IT spend in banks / financial industry, an indication to untapped potential.

The key advantage of FinTechs is that most of them are startups by innovative young minds. They are not held back by existing systems and are willing to make risky choices. FinTechs have the chance to build the right systems from the start and share a culture of efficient operational design that many incumbents may not have.

According to a study, 46% of Indian FinTechs are focused on payment and trade processing. The recently launched Unified Payment Interface by NPCI is likely to redefine the future of payment systems in India. FinTechs are playing an active role in this regard, which can help in moving towards less cash society. In addition to the area of payments, there are other potential areas in the Indian context, where FinTechs can focus.

Potential areas

Services for Unbanked

Lower cost of providing services to underbanked and unbanked customers is a major opportunity for FinTech companies. In the backdrop of diverse demographics in terms of literacy, age and region in India, FinTechs with focus on user experience can provide the impetus for financial inclusion. With a target of banking services reaching every person/household in India by 2020, FinTechs have a great role in making government of India initiative possible.

Process Enhancements

Application program interface (API) enable FinTechs to develop value-added applications. Using Artificial Intelligence enables companies to extract greater customer insights to improve services. Also, the combination of automation and self-learning algorithms can lead to the user's own data consumption in order to generate new products, services and processes.

Sophisticated CRM

Engaging customers through gamification techniques in a collaborative environment leads to better customer experience and reflects in retention. FinTechs collecting data from customers can use the same for generating new revenue streams and offer compelling value propositions including Robo-Advisories. Traditional fund managers can consider developing their own Robo-Advisory products for lower fee paying consumers.

Cash and Treasury Management

Cash and treasury management includes the administration of external and internal funds, cash flow management, and corporate finance policies and procedures. The digitalisation of cash and treasury management functions utilises online platforms to disrupt the traditional models, creating new revenue streams and value propositions. Cross-border payment transfers for businesses, foreign exchanges and invoice management are a few of the functions that are enabled primarily through the advent of online platforms.

Streamlined Processes

The consumer product application process (loan origination) can be streamlined with the emergence of cloud-based lending solutions and electronic bank account management systems which automate the loan origination process and increase overall transparency in the lending process. The move towards such solutions can improve customer experience by possible reduction in the amount of manual work, down times and errors.

Crowdfunding / Sourcing

New funding options have emerged in mid-market, such as P2P lending and marketplace lending platforms. There are 20+ P2P lenders operating in India. This is breaking the norm of traditional loans that require substantial documentation which are time taking. Increased levels of technology enable increase in lending without an intermediary.

Block Chain Technology (BCT)

In addition to the above potential areas, there is a great scope for FinTechs to exploit the features of BCT and its implementation in banking and financial applications. BCT is about distributed ledgers that could work in harsh environments with little, no or negative trust. Potential areas of applicability of BCT are listed; while some of them like trade finance are directly relevant to banking and finance others like land records may have indirect impact.

Financial Instruments and Records

Currency, private and public equities, certificates of deposit, bonds, derivatives, insurance policies, voting rights associated with financial instruments, commodities, derivatives, trading records, credit data, collateral management, client money segregation, mortgage or loan records, crowdfunding, P2P lending, microfinance, (micro) charity donations, account portability, air miles and corporate tokens.

Public Records

Land and property titles, vehicle registries, shipping registries, business license, business ownership/incorporation/ dissolution records, regulatory records, tax returns, building and other types of permits, accounts and annual reports.

Private Records

Contracts, IDs, signatures, wills, trusts, escrows and personal data like date of birth.

Semiprivate / Semipublic Records

High school/university degrees and professional qualifications, grades, certifications, human resources records, medical records, accounting records, business transaction records, locational data, delivery records, genome and DNA, arbitration and genealogy trees.

Physical Access

Digital keys to home, hotel, office, car, locker, deposit box, mail box and Internet of Things.

Challenges

FinTech innovations are not risk-free and their transformative implications are to be examined in detail. Some of the challenges for FinTechs are -

- Data Security - threat of hacking, confidentiality of data, distributed denial of service and related extortion attacks
- High expenditure on marketing
- Interoperability and integration issues with banks and other systems of the country
- Differences in management and culture - as most of the FinTechs are startups with young and ambitious talented workforce,

there can be situations for breakaways and thus leading to customer impacts.

- Compromises in regulatory processes - there could be compromises in KYC leading to money laundering, cross-border money exchanges, etc.

Responsible innovation

While FinTechs improve customer experience, provide banking to unbanked / underbanked customers and move the country to less cash society, it is important that they understand the importance of responsible innovation. They should leverage experience and expertise of agencies involved in banking domain to reduce any future uncertainties.

Regulators may encourage banks and FinTechs through continuous dialogue in a formal way. Regulators may also provide a broader framework and sandbox environment to encourage responsible innovation. Towards this objective, a Working Group was already set up by Reserve Bank of India.

Banks have been increasingly adopting digital channels. New payment banks and small finance banks are likely to begin their operations as digital banks. A collaborative approach can lead to 'win-win-win' situation for customers, bank and FinTechs.

Institutes like IDRBT have been working with academicians, banks and FinTechs to ensure innovation is responsible and reaches the banks through workshops, seminars and contests. The Institute is bringing out a white paper on implementation of BCT in Indian banking and financial sector.

FinTechs should ensure that they continue to retain CLASSIC (Customer Centric, Legacy Free, Asset Light, Scalable, Secure, Innovative, and Compliance Easy) principles. ■

__Dr. A. S. Ramasastri,__ Director, IDBRT: Dr. A. S. Ramasastri took over as the Director of the Institute on October 24, 2014. Since then he has actively led the development and growth of the Institute, especially in the areas of relevance to banking like cyber security, analytics, cloud computing and payment systems. He has been instrumental in introducing the PGDBT, IBAC and IDRBT Staff Papers Series, setting up of CIO and CAO Forums, and in the Institute gaining the status of SIRO. He is the Chairman of IFTAS, the company promoted by IDRBT in 2015 to provide technology services to banking and financial sectors. He is on the board of DSCI and SETS.

Prior to joining the Institute, Dr. Ramasastri was the Chief General Manager-in-charge of Department of Information Technology at Reserve Bank of India. In the RBI, he has spearheaded many important projects including the implementation of the Next Generation RTGS, adoption of international standards like XBRL and ISO 20022, conceptualizing and guiding of banks on Automated Data, and preparation of IT Vision of RBI for 2011-17. His initiatives of XBRL and ADF have been globally recognized and has received "Award of Excellence" from XBRL International.

Dr. Ramasastri authored two books titled 'Quantitative Methods for Valuation of Assets' and 'Quantitative Methods for Banking and Finance'. The former has been published in Chinese too. He has to his credit several articles on Finance, Banking and IT in eminent journals and newspapers.

He has guided the Bank of Mauritius, Bank of Malaysia and Bank of Uganda on implementation of Data Warehouse, XBRL, etc., and delivered talks on standards and technology for data reporting at the International Monetary Fund and Bank of International Settlements.

Dr. Ramasastri holds a Ph.D in Finance from the Indian Institute of Technology, Madras and was the top ranker in M.Sc (Statistics) from Madras University and B.Sc (Statistics) from Loyola College, Madras. He has also attended Advanced Management Programmes at the University of Oxford and Kellogg School of Management.

The FinTech Revolution - Transforming Financial Services

Kumar Abhishek
Founder & CEO
ToneTag

Today, financial services around the world are being transformed which is akin to the adoption of computers in banks for bookkeeping and the launch of payment cards which has replaced cheques for payments. But instead of being led by banks, the second wave of digitization is being campaigned by financial technology product companies.

While FinTech becomes synonymous with innovation, it is also being perceived as something that is going to disrupt or even replace traditional banks and banking processes. But it must be realized that both banks and FinTech organizations have a lot to gain from one another. The financial services market in a country like India is so vast that there is room for FinTech companies and banks to co-exist and gain from a larger ecosystem of services.

Most banks feel that the cost to set-up branches or ATMs across rural India wouldn't be worth the initiative. The banks also felt that there will be tremendous inertia against formal banking and digital payments in these sectors. Because of this, after the recent demonetisation announcement by our Prime Minister, it was these unbanked who were affected the most. According to a 2015 report by Pricewaterhouse Coopers, India's unbanked population was at 233 million. So it can be said that a large part of the population is still outside the banking net and not in a position to reduce its dependence on cash. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million POS terminals which accept payments through cards.

Even today, most living in remote and rural areas cannot boast of a bank branch close to their residence. ATMs and POS terminals are also few and far in-between these places. Residents must miss work and travel far distances to reach the nearest bank branch where they could deposit or withdraw cash. Due to these hassles, many folks living in such places don't feel the need for banks. They earn and spend exclusively in cash, since they are forced to do so. Due to the unorganized cash economy, they cannot produce any records of their earnings and spending, which means that most aren't eligible for loans from banks either. About 90% of the workforce, which produces nearly half of the output in the country, works in the unorganized sector. People often resort to the unorganized sector for loans where they are exploited through higher interest rates. It will not be easy for the informal sector to become cashless, and this part of the economy is likely to be affected the most because of the ongoing currency swap.

This is where FinTech comes in. FinTech companies develop technology that could work towards decreasing costs of financial services. Though initial takers for services such as virtual banking are young urban professionals, these services could potentially trickle down to rural India where it could be of great value. The investment in India's FinTech industry has grown 282 percent between 2013 (US$ 38 million) & 2015 (US$ 450 million). Various FinTech firms are breaking new ground in the finance sector through innovative and dynamic use of technology in the lending and payment processes. FinTech ventures use machine learning algorithms and alternative data points such as social media footprints, call records, shopping histories, and payments to utility service providers to increase efficiency and provide greater access to credit. The turnaround time is also much faster for the approval and disbursal of loans by FinTech firms despite several banks digitizing and speeding up these processes markedly.

The Government of India along with regulators such as SEBI and RBI are aggressively supporting the ambition of the Indian economy to become a cashless digital economy and emerge as a strong FinTech ecosystem via both funding and promotional initiatives. With such incentives and mandates, this robust business environment will be the most impactful levers in getting the Indian FinTech market up to speed and enable it to better address these roadblocks like the lack of authentic consumer information on digital media and low technological and digital infrastructure.

As start-ups emerge as enablers for the business of large financial institutions and seem to be in the spotlight, government bodies and other market players have been stoutly serving their part to establish an environment for the growth of innovation and technological advancement in the financial sector. Continued strong commitment from the government, the industry and the FinTech firms is critical to allow the FinTech revolution dig its roots deep in any financial system.

In most emerging markets such as India strategies focused on collaboration, offering a sustainable change in the market are easier to implement. With the ability to collaborate, start-ups cross the chasm from being a small, successful business to potentially scaling their solution for a very large customer base. With improvements in mobility, availability and quality of such products and services, functionality and online experience becomes better, which in turn will lead to greater level of trust in traditional institutions.

While digital finance firms have benefited from the government's pro-start up policies and flexible regulatory conditions imposed by the Reserve Bank of India (RBI), formal institutions possess an established infrastructure and legacy that is not easily replaceable. FinTech startups need to instil greater confidence among Indian consumers, already known for being conservative in their financial preferences. Figuring out how to market to the needs of the organization and influencing financial behaviour could be some of the biggest challenges, as will be setting up a strong and responsive regulatory infrastructure to keep up with the speed of technological innovation. On the other hand, traditional banking and financial institutions can leverage their existing customer base and adopt digital products that nurture strong financial relationships while improving service efficiency and broadening access to meet changing needs. The disruptive potential of FinTech firms can provoke the much needed modernization of the traditional sector, reducing costs in the process and increasing the size of the banking population.

Reacting to these opportunities and challenges, banks like Federal Bank announced a partnership with Startup Village to develop innovative banking products, the U.K. giant Barclays is set to operationalize its fifth global FinTech innovation center that will be located in India, and Goldman Sachs Principal Strategic Investments Group (GSPSI) is looking to invest in Bengaluru's FinTech startup scene.

Mobile wallet firms like such as FreeCharge, MobiKwik, Oxigen, Paytm, etc have witnessed a surge in usage of their wallets and the money loaded into them post November 8. Now, the habit of evading taxes will not change overnight, but other major hurdles such as awareness, internet connectivity and infrastructure in terms of digital payments can be dealt with now. While urban centres mostly enjoy high speed internet connectivity, suburban areas are deprived of a stable internet connection. One good thing is that people from the rural parts can seamlessly transact through mobile phones with the help of the recently launched UPI (Unified Payments Interface) by NPCI (National Payments Corporation of India) making digital transactions as simple as sending a text message.

While the Indian market is large and warmed up for financial innovations, startups do face a unique set of challenges. While the government is trying to facilitate the emergence of new financial technologies, the market regulations are still tough. Also, access to consumer data is scarce as India is still a case-centric country, leading to a high risk for fraud and loops in security and there is lack of consumer education which prevents people from getting on board easily. The digital revolution is transforming operations across the financial and banking sector. What looks heartening is that the Indian government and regulatory institutions have promoted an entrepreneurial climate for FinTech in India. However, policies and governance will need to match the speed of innovation in this sector, particularly to ensure secure and transparent growth. ■

***Kumar Abhishek**, Founder & CEO- ToneTag*: Kumar brings extensive experience on large scale, multi country, core banking implementations both on mobile and internet banking arenas. He aspires to enable financial inclusion to the grass root level. Thus making proximity payments reach the last mile and to the critical masses irrespective of geographies, internet connectivity and hardware dependency.

Prior to starting ToneTag, he was with Finacle core banking at Infosys and as a Senior Engineer with MindTree. In 2013, Kumar conceptualized the idea of ToneTag and developed a unique concept of making offline payments and eliminating hardware dependency. This was not only the launch of a completely new product; in fact it was the birth of a totally new product category.

He strongly believes that Collaborations and Partnerships enrich and drive abundance than competition.

In addition to his business activities in the entrepreneurs space, he likes playing Golf and the Saxophone.

The New Sector on the Block

Mukesh Bubna
Founder & CEO
Monexo

*They came, they saw and they have already conquered the marketplace much faster than one would have thought. P2P lending has found itself in the middle of action following the demonetization exercise of the government. **Mukesh Bubna** lists out the reasons for development and the future of P2P lending in India.*

There has been a lot said and written about how demonetization will impact and reduce the demon of black money. However, that is something that India will see in the distant future. As per the RBI, the parallel economy funded by black money is around 26% of India's GDP. The scrapping of Rs. 500 and Rs. 1000 currency notes have shattered the foundations of the black market and the so-called parallel economy, but the business sector has also been reeling from its aftermath.

In the current scenario, the cash-strapped economy is trying to return to normalcy and businesses are looking for ways to boost their income. The informal sector which is almost one-fourth of the Indian economy has been ferociously attacked by the government. It has in a way wiped out a large chunk of lenders who operated outside the system and were untracked by the government.

Demonetization in India has also led to the rise of blockchain technology which works with almost any kind of transaction that involves value; this includes property, money and consumer goods. Since every transaction in the blockchain technology is approved, it helps to reduce fraud. Secondly, the concept of Bitcoin has also managed to trickle into the system. While Bitcoin is relatively new to the Indian economy and business system, the volume of Bitcoins being traded in India has shot up substantially in the post-demonetization era. Bitcoin prices in India range from $866 to $896 per Bitcoin and the increasing demand is driving the price higher. Bitcoin start-ups like ZebPay, Coinsecure and Unocoin are mushrooming and taking advantage of the current cash crisis in the country. Thirdly, e-wallet companies like Paytm and Freecharge have capitalized on the demonetization scenario with some aggressive advertisement campaigns to bring more users under its fold.

But by far the most important beneficiary of the entire demonetization exercise seems to be the Peer-to-Peer (P2P) lending companies. A relatively new phenomenon, P2P lending is yet to take off in a major way in the Indian context. However, this whole exercise of demonetization has suddenly put this new segment in the FinTech space under the spotlight.

Banking functions have taken a big hit. Various functions in the banking industry have been impacted due to the constant requirement of attention towards the cash disbursal, exchange and depositing that has happened in the past one and a half month or so. This opened up a flood gate of opportunity for a sector that was just about trying to figure out the best way to set itself up in the Indian context.

India's inclination towards informal lending channels had anyways offered them with a handle to set themselves up here. As per the recent Ministry of Statistics and Programme Implementation based on the 70th round of National

Sample Survey non-institutional credit accounts for nearly 19% in the rural sector and 10% in the urban regions.

Traditionally, informal lending players charge interest rates of more than 2% to 3% per month which are higher than the interest rates formal lending players charge. Transaction transparency is a major problem with informal lenders as they deal in hard cash and there are no bank transfers. The concept of no-compliance definitely works in their favour, but now with a chunk of black money being wiped out it has become increasingly difficult for cash hoarders to keep a large amount of cash and disburse it at their will.

The November 8 shock therapy by the Government has been instrumental in pushing India towards formal channels and move away from being primarily a cash-dependent economy. In 2016, India crossed the 1-billion mobile subscriber milestone which clearly indicates how quickly India is adopting new emerging mobile technologies. Finance companies are actively making use of various internet and mobile technologies that would allow them to cut operational cost and offer low-interest loans to borrowers.

P2P lending firms offer a platform for borrowers to get loans without transacting with financial institutions. P2P lending firms, on the other hand, are 100% online firms and therefore they offer low-interest rates to the borrowers. Unlike, informal lenders, P2P lending firms offer process and fee transparency attracting more borrowers. In the wake of demonetization, P2P lending firms will dominate the market space as cash will no longer remain the king and informal lenders will vanish from the market.

With better transparency in rates and online payments, P2P lending firms are well to capitalize on the digital business space where every transaction is done online. These firms are also ideal for the under-banked population that has zero credit score and history. In the distant future, RBI's regulatory guidelines will provide more clarity on how these firms can ensure smooth functioning and finance the needy. ■

Mukesh Bubna, *Founder & CEO, Monexo:* Mukesh brings 20 years of consumer banking experience from Citibank. He has worked across geographies and lived in India, Singapore and Hong Kong. He has led diverse regional teams in his role as Regional Director for Product & Marketing of Citibank. Prior to that he was CFO for Cards and Unsecured Lending for the Citibank APAC region. In his last role he was a Business Head for Western Union - Financial Inclusion Program for Asia. Mukesh enjoys outdoor activities, traveling and photography. He can be either seen dragon boating on the weekends or hiking trails. In Jan' 2014 - he ran the Hong Kong Trail of 50 Km from Peak to Big Wave beach - he climbed his Mount Everest and has since been an avid runner sporting a Polar watch on his wrist.

Blockchain and FinTech: A Debate and a Promise

Mr. Varun Dua
Co-founder & CEO
Coverfox.com

Mr. Devendra Rane
CTO and Co-founder
Coverfox.com

The Indian of the twenty-first century is at the cusp of an important revolution, and we must acknowledge it in its entirety. Financial services are no more what they used to be two decades ago. This has been made possible by not just all the innovation and technology at our disposal but also the entire ecosystem shifting gears and gaining momentum. We are witnessing a revamp in financial services through an ever evolving FinTech space.

We could quote ample financial reports and site data that have suggested FinTech's success and indicated its limitless potential. However, for the sake of brevity, we'd like to restrain ourselves and get to the heart of the matter. We'd like to discuss the potential and promise of the often debated technology, Blockchain.

Blockchain happens to be much misunderstood, mainly because of the buzz surrounding it and unclear representations from the media. In a gathering of top industry honchos, quite a few wanted to know if it can provide any IT cost savings, while few inquired if it will be possible to fire and replace their compliance department with Blockchain. With the initial stage being set by Bitcoin, the world wants to embrace Blockchain, but the hype makes it difficult to find the right problems to solve amidst the clutter of ideas.

A note on the Ecosystem

Before we understand the role of any new technology in FinTech, it's important to acknowledge that Indian FinTech industry is well emerging from its nascent form because of the ecosystem in which it has been placed. A healthy relationship between the different elements of this ecosystem have allowed the overall industry to grow.

These elements include the young minds who are 'starting up' ventures with the objective of disrupting the service sector with innovative technology, the investors who are coming to believe this disruption thanks to the government and regulatory bodies recognizing the potential of the 'disruptors'

It's without a doubt that the central aspect of our FinTech ecosystem is the user or the customer. It is the customers' behavior, requirements and preferences that define the extent to which a technology will prove to be disruptive in the real sense of the word.

Being a late entrant into the global economy, India is known to skip trends and jump to latest technologies; cases in point being pagers and answering machines. To a great extent, this is also true about the service sector in India. Indians, especially in the rural areas, haven't still got used to quality services and have not formed technology habits. This eases entry for new entrants to acquire and create new habits.

It is true that India has the third highest number of internet users in the world. It is also true that, in March 2016, 97.62 percent of the total 1,058 million telephone subscribers were actually wireless phone users. However, this is just the tip of the iceberg. Thus, at one level is the Indian that hadn't been previously exposed to efficient financial service standards, and at another level is the Indian that is adapting to newer forms of technology every day and demands more.

The Government and regulators have also recognized the need for financial services to catch up with the technologically advanced Indian of the twenty-first century. Schemes like Jan Dhan Yojna are a step not just towards financial inclusion but also towards bringing India closer to adopting newer forms of technology.

In this dynamic space, it is worth opening the conversation around Blockchain now.

Blockchain for the CEO

Without getting too technical, Blockchain is simply a ledger which is distributed across multiple parties guaranteeing 100 percent consistent data with all of them. All parties can write to this ledger at any time and still be consistent with each other. Now data consistency across multiple parties has existed since ages, what makes Blockchain different is that you cannot change previous entries once they are a part of the ledger 'ever'. Blockchain is therefore 'distributed truth' imposed by technology such that it can operate without the need of trust between a set of parties who agree to adopt it as their common ledger. Blockchain as a technology can bring in good governance and self-regulation without the need of a governmental body. However, this is just one technology that can be a potential game changer, and not one of the easy wins either, because it requires the industry to collaborate and adopt.

Blockchain and use cases

The key to using Blockchain is first understanding that there is no real use case for a private Blockchain. Its impactful only when applied to business problems where multiple partners are writing and reading from a common ledger, without having to trust each other. If the problem statement doesn't match this definition, Blockchain is an overkill or probably useless.

For example, Bitcoin has been one of the direct consequences of Blockchain. It used Blockchain as a currency ledger. Needless to say, Bitcoin has reaped huge benefits from Blockchain, when it comes to problems like taxation, accounting and restricting black money.

Speaking of trust and our own experience in the domain, let us put the Insurance sector to test the principle that governs Blockchain. Insurance is largely based on trust and set policies. Here, the insurance company and the insured individual need to trust each other that either party will stick to the policies. So, if a complex insurance policy was to become a part of the Blockchain, settlement could happen without disputes based on the policy blocks.

With the help of Blockchain-based smart contracts, one can code the terms of an insurance policy into the contract itself. This means that in case of a claim, settlement would happen automatically. Let us explain this to you with an example of flight cancellation insurance. If someone had insured a flight which was later cancelled for some unforeseen circumstances, the Blockchain-based smart contract can get executed without manual intervention as soon as a flight gets cancelled. Similarly, if someone had insured their property against earthquake, the contacts could executed in case of an earthquake and the claims settled as per the magnitude of the quake.

A technology like Blockchain can also be used to minimize the perennial problem of frauds in insurance. Everything from a user's medical history to claim history and profile can be put into a Blockchain and shared across as a part of KYC. Quite a few disputes in insurance claims happen when the insurer and insured give conflicting versions of the KYC, medical history and other details. If all such documents are a part of a centralized document management system supported by Blockchain, which can be accessed by the insured and insurer, then all such conflicts can get resolved without any intervention and need of a trust based system.

The promise

Blockchain in itself is ineffective. For that matter, any single technology is ineffective in isolation. Blockchain will need other new age technologies as inputs to be practically used. At the same time, the insurance industry needs to collaborate a lot more to be able to manage frauds and customer profiling since they are the most common and amongst the biggest problem areas for everyone. Blockchain provides a great way to be able to do so without a regulator or an intermediary, all the while relying on technology which has other benefits to being fast, distributed and democratic. ■

***Varun Dua**, Co-founder & CEO, Coverfox.com*: Varun Dua is the Co-Founder of Coverfox Insurance Broking Pvt. Ltd. that runs the website www.coverfox.com.Varun has extensive and diverse experience in the insurance industry spanning over 10 years. He's worked on Sales, ROI based marketing, built tech solutions for insurance companies amongst other things.

Varun started his career as an advertising and marketing professional and worked with leading insurance and financial services firms including Tata AIG and Franklin Templeton. He led marketing analytics efforts for direct business acquisition and led technology efforts for efficient servicing of customers.

Prior to Coverfox, he has co-founded 2 firms Enser Communications and Glitterbug Technologies which have brought in good technology and practices to the Insurance Industry in India. Enser was set up in 2008 and was the fastest growing customer support and contact center for financial services firms and grew to 500 people in two years of its inception. Glitterbug is a technology services firm and has serviced top insurance brands including ICICI Prudential, HDFC Life and Aviva to integrate their online business with core applications and cloud based voice record storage, management and retrieval.

Varun is passionate about technology, consumer internet and financial services. He is a graduate of MICA (Mudra Institute of Communications, Ahmedabad) where he pursued the flagship course in communication management with a specialisation in Brand Management.

***Devendra Rane,** CTO and Co-founder, Coverfox.com*: He graduated from IIT Mumbai in 2005 with a Bachelors and Masters degree in Aerospace engg. He started his entrepreneurial career as the co-founder of 'Innovations Unified' which was the winner of "Eureka", Asia's biggest Business plan competition. The business was centered around a proprietary nanotechnology which he developed as a part of his thesis.

Prior to Coverfox, he has co-founded two companies, one specializing in User experience design and the other providing technology services to Financial and Insurance domain.

He has worked with many tech. startups at various stages. He is experienced in conceptualizing appropriate Minimum Viable Product (MVP) for startups as well as enterprises. He has managed globally distributed projects and teams, and has a pragmatic understanding of developing products in such environments. With his valuable experience in large scale consumer and enterprise platforms, he understands scalability of an evolving product as it goes from being an MVP to a successful product.

Some of the key projects developed by him in the consumer domain are:

- hoonur.com : A talent hunt portal by Balaji Telefilms, acquired by StarPlus. Scaled to 100,000 profiles in 6 months. Role : Technology consultant for scalability and high availability.
- duboo.com : Flash based Audio Manipulation and Dubbing Tool. Role : Lead developer
- chaupaati.in : A web and mobile based market place for second hand products, acquired by Future Bazaar. Role: Backend Developer
- homestaysdos.com : now Tripvillas.com, Asia's largest vacation home stays portal. Role : Sole Developer and Designer
- gototest.com : An online education portal for schools and colleges, currently operating in 10,000 schools. Role : Sole Developer
- qilpmedia.com : Browser and Desktop based rich media application. Funded by Norvest ventures. Roles: Senior Developer

In 2017, Can FinTech Make Everything About Money Easy?

Rajat Gandhi
Founder & CEO
Faircent.com

Recently I got talking with a journalist and the conversation veered to how fast technology companies were growing in India. With four digit growth, some tech companies are scorching the landscape with their phenomenal business. However, barring a major digital wallet company, the journalist said FinTech startups were conspicuous with their absence. After all, FinTech is supposed to be one of the hottest sectors in India.

While the spotlight has been on FinTech, more so after November 8, it is important to understand where we stand today and where we need to go. For that we have to look at history, analyze what others have done and ensure we do not commit mistakes.

Growth

While every sector wants to grow at impressive levels, it is always important to find that optimal level where your growth is not at the cost of everything else. We do not have to go far to look at what skewed growth can do. Once considered the answer to financial inclusion and getting credit to the poor, micro-finance in India has seen its share of highs and lows. From heady pre-2010 days, to the slump that followed, micro-finance was a casualty of a sector growing at breakneck speed.

For the FinTech industry, especially peer-to -peer lending, it is important to find the sweet spot where growth does not come at the cost of the business itself. One way of growing is to grow at any cost and the other is to get it right. When you are dealing with money from the public at large, you have the added responsibility to ensure there are no undue risks associated.

Nascent

FinTech in India is only about half a decade old and is at a very nascent stage. For any sector to grow and mature it takes far longer and FinTech is no exception. In the absence of regulations, the sector has done well to self-regulate and ensure fly-by-night operators and unscrupulous elements are kept in check. What is helping is that the regulators are making the right noise and have come up with a draft set of guidelines that seem to point in the correct direction. The guidelines are very important for sectors like P2P and crowdfunding where public money is involved and barriers to entry are relatively low.

Complex

FinTech is probably one of the most complex sectors around primarily because it needs experience in two of the most varied disciplines - finance and technology. The financial world is one of the slowest adopter of technology and tech on the other hand has tried to stay away from addressing the hardcore concepts around money. As a result, there is a dearth of talented entrepreneurs and teams that can target large, complex pieces in the financial domain. Also, large banks and financial institutions have been wary of technology and disruptive ideas that can change the status quo. As a result, most financial instruments and products have been relatively the same for decades altogether. As a result, FinTech in India and across the world face the challenge of talent. It is not easy to build a team that can imagine solutions which can impact millions by combining the power of technology with the impact of innovative financial solutions.

Evolving

The entire technology piece in FinTech is also not stagnant. For example, when Bitcoin burst into the scene, it was largely touted as the next best alternative to currency. However, the technology that powered it, Blockchain, was soon considered as the real game changer. Today, banks, financial institutions and regulators are closely looking at where a technology like Blockchain goes. In fact the SEBI Chairman UK Sinha recently added that the market regulator was also trying to figure out how the pieces play out. From how we access credit history, to how we undertake credit ratings, from how we disburse money to how we collect it, the financial world is undergoing a sea of change and technology is continuously evolving. It is difficult to figure out where technology is headed, which makes it difficult to determine what works best.

Role of P2P and relevance in India:

Within the FinTech bucket, one of the most exciting models is P2P lending where an online platform connects an individual lender to an individual borrower. Like the rest of the world, lending has largely been limited to banks and other financial institutions, but India also has a large presence in the informal sector in lending, which mostly comprises of money lenders. P2P changes the mix, which has been functioning for ages, by democratizing lending. With P2P, anyone with a disposable income can technically become a lender.

P2P is a relatively new phenomenon, but has caught the fancy of the people. On the lender side, it is primarily driven by the fact that returns are better than what stocks, mutual funds or any other financial products can offer. Lending as an asset class has traditionally been the one to deliver the most attractive returns and with P2P lending it gets thrown open to a large spectrum of people. For borrowers, interest rates are much lower compared to what banks charge and the ease with which one can raise credit. P2P also enables a wider group of people to access formal channels of credit compared to what banks or other financial institutions cater to.

The growing interest in the sector and its popularity has meant investors are keen to put their money in genetic startups. According to Tracxn, Mobile payments ($212M) and Lending ($199M) accounted for nearly 80% of the total funding that went into the Indian FinTech space, in the year to date. Although, in terms of overall funding, there was an almost 64% year-on- year decline at $512M (83 rounds), total funding at the seed stage rose to $27M, while the average investment ticket size at the Series B saw a 24% increase at $15.4M. As per Tracxn, there are 19 startups in the P2P marketplace segment and five have been funded.

P2P as a model also works beautifully on top of a digital economy, which Prime Minister Narendra Modi and the Government is trying to propagate. As India starts with a drive to increase digital transactions, a system that covers every aspect of lending through the digital medium is a big step in that direction.

The FinTech space opened strong in 2016 and ended with a flurry of activities. The demonetization exercise has meant everyone is looking at the sector to provide answers. In the P2P space, Faircent along with other players in the space have taken the responsibility to ensure that we have the right set of guidelines and the sector grows in a way that adds value. P2P lending has the potential to be a game changer in terms of getting credit to individuals outside the formal network of credit. Along with the potential, however, comes the responsibility that we do not squander what we can achieve. ■

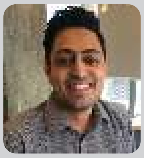
Rajat Gandhi, *Founder & CEO, Faircent.com*: Rajat has over 20 years of experience in marketing, strategy and brand building especially in online and digital space. One of the earliest professionals of Internet in India, he gathered extensive hands on experience in launching and building Portals, online Classifieds, Communities, E-Commerce and Digital Advertising businesses. In the past, he has headed multiple initiatives at The Times Group including member of the founding team that launched brands like Timesjobs.com, Magicbricks.com and Simplymarry.com and India Head at Performics, a digital marketing agency of Chicago-based Publicis Group.

Faircent.com is India's largest peer to peer lending website which caters to retail and business loans. Faircent helps in eliminating the high margins, which intermediaries like banks and other financial institutions make on loan transactions thereby helping borrowers get faster and cheaper access to credit and lenders make greater returns.

Faircent.com has in its nascent history garnered recognition from the Industry. It was showcased as one of the top start-ups at Start Up India, selected for the first batch of NASSCOM 10,000, part of the Microsoft Accelerator program and one of the top 10 companies from India to be selected for Web Summit in 2013. Faircent is acclaimed as the 'Interbrand Breakthrough Brand in Finance' by Interbrand, NYSE and Facebook in its Breakthrough Brands report 2016. Recently, it was selected as part of NASSCOM Emerge50 2016 awarded to India's most innovative Top 50 emerging IT product companies.

Path To The Ultimate FinTech Offering

Jitendra Gupta
MD/Founder
Citrus Payment



Anurag Pandey
AVP, Product & Strategy
PayU India

With the announcement on 8th November 2016 by the Prime Minister, the industry is now in the midst of heady excitement, an arms race of sort is on to capture and serve the rapidly digitising consumer in India for electronic payments as well as other financial services. "FinTech" is the buzzword du jour! It is however unfair to treat this industry as a flavour of the season. For many years now, across the globe startups and financial services institutions have been creating compelling solutions to benefit consumers and businesses.

From alternate lending solutions smartly underwritten on non traditional data sources that let you pay later (Klarna, OnEMI, Ola Credit, LazyPay), to providing working capital for your business (Capital Float, LendingKart). From simplifying acceptance of payments on online or mobile (Stripe, PayU, CitrusPay) to making offline payments ubiquitous (Square, mSwipe, ApplePay, ItzCash). From banking solutions that don't ever need a visit to a branch (Simple, BankMobile, DigiBank DBS) to using biometrics to reduce cost of KYC and servicing a consumer (IndusInd Mobile Fingerprint Banking, Aadhaar Payment Bridge), there exist solutions to tackle every problem.

While each of these solutions has targeted a specific problem, no FinTech player (apart from Alipay in China) has yet been able to build a complete solution that satisfies all consumer needs in one place. We are still to see the Apple or Google of the FinTech world, a product so refined, easy to use and understand and backed by latest technology incorporating behavioural and transactional analytics, machine learning, blockchain, biometrics and mobile. Here we present, the journey to build the ultimate FinTech offering. The journey that will ensure that the FinTech revolution sweeping this country is not just a flash in the pan but a bonafide success positively impacting the population in easing how we transact and manage our finances.

First comes payments

Payments are our basic daily necessity, it is akin to drinking water, eating our food & getting our daily exercise. The deepest darkest troubles caused by demonetization during the last few weeks have been our inability to transact due to non availability of small denominations of cash. We run our lives transacting - buying milk and groceries, getting to work by cab, auto, bus or train, paying for electricity, water, rent, parking, entertaining ourselves by eating out or watching movies or going for a holiday.

The first step is to build a best in class digital payments system that solves not only problems for consumer experience but also for businesses both big and small. Even In 2016, almost 10-15% of transactions are lost between payment gateways and issuing banks due to infrastructure issues. Such high incidents of failures (resulting in direct loss of revenue) damage the credibility of banks and payment processors and inhibit the use of digital payments. Add to this, the problems created by the poor quality of internet on mobile devices (A page load takes on an average 5.9 seconds on mobile and 4.1 seconds on broadband in India. This is in stark contrast to China, where mobile page loads are faster than broadband and take on average 2.1 seconds). On top of this, signing up to accept payments as a business is always a nightmare because of the KYC and compliance requirements.

By innovating to solve these basic but difficult problems, acceptance is built on the merchant side. As acceptance grows, so do the multitude of consumers transacting on these merchants. Solutions that help consumers transact easily such as custom browsers, saved cards and wallet balance help drive repeat transactions on such merchants. As transactions continue to grow, data begins to get rich. Information on who is transacting where, and for how much and how often, what time of the day.

While this information will lay the groundwork for the next step of the journey, it is also helpful in further optimising the payment platform. Continuous investment on automation, settlements, operations, platform scaling still needs to be made to ensure that more merchants are getting more success for lesser effort on their part. As the payments flywheel starts to spin at a relentless pace, it is time to take the next step.

With rich data come rich possibilities

Data from the payment platform and other available sources are built together to predict the creditworthiness of a consumer. These involve both the ability and willingness of a consumer to pay. Armed with this, a convenience and small ticket (less than $30) based pay later product can be the first step into lending. Pay later products solve two problems - they further help to improve the performance of the payments platform as complex card or net banking flows are not required and also help to build a relationship with the consumer, where they start to come on your platform to pay their dues.

As the pay later product matures and is distributed across the ever increasing merchant base, big ticket lending needs can start to be covered, where credit decisioning can be done in milliseconds based on the predictive ability of the complex and intelligent scoring modelled both on payment and lending behaviour of consumers. Collaborations with merchants on use of their data as well as data from financial institutions can help improve the efficacy of the models.

Further foray can also be made into credit solutions for small merchants - this again helps to drive the ecosystem by creating more and more merchants that keep the payments and lending platforms growing and servicing more consumers. At this stage, the lending flywheel is also rotating at speed and that along with payments acts as a propeller into the third and final phase of the journey.

Time to take-off!

With engines of payments and lending running on full throttle, the next step is to incentivise the consumer to use your platform for not only payment and lending needs but also as their gateway to all other financial services. This is also the time to unify all federated offerings for the consumer on a single platform.

Most consumers want their money to be managed for them for both short term liquidity as well as long term investments. On top of this they have insurance needs so that they aren't burdened with unexpected expenditure in an emergency. Enough trust has been built with the consumer as you are now their favourite source of credit on all the merchants where they transact.

To start with the consumer can be engaged to get a financial health check up of their existing portfolio. From here the consumer can be guided to create a goal based portfolio for both short term and long term needs. This portfolio will be rebalanced automatically for both tax and returns. All insurance needs can also be managed from the platform. Tax filing services can also be automated for the consumer. All of these can be easily achieved by partnering with fin-techs who are already operating in each specific area such as robo advisory, insurance aggregators, and tax planners.

Not only will such a system be a simple automation of investment, insurance, liquidity and tax compliance needs but will be intelligent enough to anticipate change in goals as the person ages and suggest changes in investment thesis. Such a system will create great opportunities to earn revenues as the regulators (RBI, SEBI, IRDA) are already incentivising providers to charge on advisory and not from commissions selling financial products. There will be a multitude of cross selling opportunities available on such a platform, creating a FinTech behemoth that is able to unify all financial needs for consumers on a single platform.

So why will this succeed?

With the push by the Prime Minister towards adoption of digital transactions, most of the 440 million Indians between the ages of 18 and 35 in the next 3 years will definitely try to pay digitally to transact for their basic needs.

Ensuring that the merchants where these consumers transact are able to provide a reliable (99.9% successful), ubiquitous (online, offline), safe (Aadhaar & biometrics) and simple experience (mobile/IoT/wearable) will ensure that these consumers keep coming back. With the right investments in data and intelligence algorithms, real time credit decisions can be made for payments letting these consumers to focus on creating wealth through their investments and automating their tax and insurance needs.

Managing these consumers through their consumption life goals and ensuring healthy returns on investments will attract the next set of 390 million Indians, who will be digital natives and are below the age of 18 today. Payment needs and experiences will be very different for them and different types of businesses and models will emerge to serve them. Innovating to stay ahead of this demand and fulfilling the needs of these businesses will keep the flywheels spinning into the next decade, creating unprecedented value for the FinTech taking this opportunity. ■

Jitendra Gupta, *MD/Founder, Citrus Payment:* Jitendra was Founder and MD of Citrus Pay, a leading digital payments company in India. Post acquisition of Citrus Pay by Naspers, he leads the consumer businesses at the combined entity, PayU India, as their Managing Director.

He has more than 12 years of work experience in banking and financial services industry and considered an expert in payments industry. Prior to Citrus, he was working with ICICI bank for 7 years, wherein he was part of founding team of Retail cross sell and Investment banking division in the bank. During his last stint with the bank, he led the whole initiative of stitching a joint venture between ICICI bank and First Data in Indian market. This was a unique JV ever done between a bank and an independent payments company.

During his tenure at Citrus, he grew the company to a 300 member+ strong team. Citrus counted its investors base from Sequoia Capital and E-context Japan to Ascent Capital in Series C round. He also led Citrus to the largest all-cash deal in the FinTech space in India, with the acquisition of Citrus by Naspers Group in September 2016.

He graduated from Sydenham College, Mumbai and is a qualified Chartered Accountant

Anurag Pandey, AVP, Product & Strategy, PayU India: Anurag is a Product & Strategy professional, currently working in the CEO's office in driving the integration between PayU India and Citrus Pay. Over the last 3 years at Citrus Pay, he was leading product on wallet, mobile, proximity and identity management central to experiments in consumer payments.

He has worked for 10+ years across payments, voice telephony, broadband, mobile commerce companies or verticals. Prior to his MBA from HKUST Business School, Hong Kong he worked in India and Europe for leading technology players such as Infosys and Tech Mahindra in their solution consulting practice. He holds a degree in Computer Science Engineering from the Manipal Institute of Technology, Manipal.

The Evolving FinTech Landscape in India

Gaurav Hinduja
Co-Founder & Managing Director
Capital Float

Over the past couple of years, the term FinTech has evolved from being a buzzword among tech-savvy business executives to an organized sector characterized by hyper growth. Digital technology, and its avatar in the financial segment, is completely reinventing the way business has traditionally been done.

FinTech is basically the amalgamation of finance and technology. It refers to a new generation of companies that leverage cutting-edge technology to offer financial solutions that are significantly more efficient and effective than those provided by traditional financial institutions.

Merely a technological advancement?

Technology has been used by financial institutions for more than half a century. With the turn of the millennium, technology started playing a more critical role in the financial sector. Modern banking or financial services would struggle to stay relevant in the absence of technology. So, the question is: is FinTech any different and why is it positioned as a unique sector? Over the past 50 years, technology has "assisted" traditional financial institutions. However, there has not been any dramatic change in the products being offered or their target market.

FinTech is not a replacement for traditional banking services; rather it is a result of the inevitable evolution of the banking space. Banking services are now being provided with the added convenience of technology. The sector does this with the help of technology intelligence, intricate algorithms, machine learning and big data, which are swiftly replacing traditional financial practices. Backed by such powerful armory, FinTech is completely changing the corporate landscape in multiple industries and reinventing the way companies gain access to finance.

What does the FinTech landscape look like?

Traditional banking functions are being taken up individually by various companies that are creating separate constructs of the services. Firms are now specializing in certain banking functions, instead of taking an aggregator approach.

The FinTech landscape includes companies in the following segments:

- **Digital Lending**: These companies provide flexible options for financing to SMEs and consumers. Technology is being used to create better financial products, improve customer experience and increase the speed of loan approvals. Some prominent companies in this space include Capital Float, Lendingkart, Indifi, NeoGrowth, etc.
- **Payment Services**: These companies allow individuals and businesses to accept payments without even swiping a card. Payments are made online and the payer just needs a smartphone, without the requirement of a merchant account. PayTM, Freecharge and MobiKwik are among the top players in this space.
- **Savings & Wealth Management**: These companies help individu-

als save money as well as make and manage their own investments. Software helps to quickly compare different options and allows for people to make decisions based on their individual needs. Scripbox and Funds India are among the popular firms operating in this segment.

- **Remittances**: Inward and outward remittances can be complex, time-consuming and expensive. FinTech companies have made these transactions simple and affordable. Oxigen and Payworld are among the notable remittance platforms.
- **POS**: Several new players have emerged in this space, which has become prominent post demonetization. Companies operating in this segment provide card swipe machines that enable customers to make cashless payments. Mswipe, PineLabs, ICICI Merchant Services, etc are some of the larger POS machine providers in this space.
- **Insurance**: FinTech has helped the insurance sector transform from being document-heavy to becoming paperless. Several new companies are increasing the ease of decisioning at the consumer end by aggregating insurance provider data and simplifying the application experience. Coverfox and Policybazaar are chief among the companies that have risen to prominence in the last few years.

Growth of FinTech in the global economy

Funding in this segment has grown rapidly, and 2015 recorded a 75% increase in global investments. In fact, FinTech became Investopedia's "Top 10 Terms of 2015".

The global FinTech sector received an investment of a whopping $5.4 billion in the first quarter of 2016, according to figures published by Accenture. This represented a 67% jump over the figures of the same quarter in 2015. While the FinTech emerged in the Western world, the growth in the first quarter of 2016 was driven by investments in the Asia-Pacific region.

India is playing catchup

India is not very far behind the world in terms of the state of the FinTech sector, although there's room for massive growth. The country has recorded $1.77 billion in FinTech investments between 2014 and 2015 through a total of 158 deals, according to Inc42's FinTech Market Report 2014-2016. The average deal size was $9.82 million.

While these figures highlight the growth of FinTech in India, there are several factors in play that support phenomenal growth in the near future.

Factors supporting FinTech growth in India

High adoption of technology: India has already proved itself as being pro-technology. Its high rate of technology adoption can be seen in the penetration of smartphones. India has already overtaken the US to become the world's second-largest smartphone market, with more than 220 million active unique smartphone users, according to a report by Counterpoint Research. Lending is made significantly easier through high adoption of technology, as it helps reach a wider audience when compared to a feet-on-street approach. Additionally, the extent of technological awareness also spreads across the masses, facilitating a higher acceptance rate for new-age lending.

Internet penetration: The US might have a higher internet penetration at 89%, but due to the relatively smaller size of the population, the reach is limited to a little less than 300 million users. India, on the other hand, might have a lower internet penetration at just 35%, but because of the vast population, the reach is significantly higher, towering at almost 500 million individuals with access to the internet. The figure surged from 18% in 2014 to 35% in 2016. This highlights the fact that internet penetration is not just growing rapidly, but has ample room to grow over the next few years. FinTech lenders can capitalize on this surge in internet penetration, as it inherently increases the segment's reach to geographical locations that were previously hard to serve due to logistical barriers.

Government policies: The latest surprise demonetization move has given a massive fillip to the FinTech sector. Government policies in India are evolving quickly, providing a favorable backdrop for FinTech. By encouraging digitization, by promoting uniform and widespread identification (Aadhaar Card) and through bank account schemes, the government has taken several initiatives to boost the FinTech ecosystem.

Increasing financial inclusion: Currently, Indian's financial inclusion penetration is extremely low, with as many as 145 million households not having access to banking services. However, the RBI's target is for the penetration to reach 90% by 2021. The push for financial inclusion from the Government helps FinTech lenders, as digital lending platforms can target customer segments that were previously underserved.

Investors getting more interested: Venture capitalists, angel investors, high net worth individuals and private equity houses consider FinTech an attractive investment option. According to a report published by KPMG, FinTech investment in India surged from $245 million in 2014 to over $1.5 billion in 2015. Although India has only about 1,800 angel investors (as compared to roughly 300,000 in the US), there has been a surge in their interest in the FinTech Sector, as reflected in the increase in deals from 370 in 2014 to 691 in 2015.

Movement from 'data poor' to 'data rich': India now ranks third among global startup ecosystems, and is expected to end 2016 with 4,750 startups. Taking into account the current momentum, India is expected to have more than 10,500 startups by 2020, providing employment to almost 2.1 lakh people, according to a report by NASSCOM. The startup wave and the huge investment (in excess of $5 billion in 2015) supports FinTech because this sector needs entrepreneurs who are open to innovation, are willing to experiment and are not tied to traditional ways of getting things done. The evolving ecosystem of India, including government policies, digital services like e-commerce and growing prevalence of social media, are generating digital footprints of customers. This data helps FinTech companies to understand and underwrite customers better, contributing to the development of customized financial solutions.

Huge working population: India has a population of more than 1.3 billion and a third of this population is urban. The median age in India is around 27 years, which means that most of the population is working and generating income. Working adults typically adopt technology much faster than the retired elderly. These working adults would have greater enthusiasm to avail the services offered by the FinTech sector. Availing credit will become significantly easier for young adults due to their familiarity with technology and data rich eco-systems that they frequently engage with.

Necessity: The mother of invention

While all the above factors support the growth of FinTech, the primary driving force has been necessity. The need for such solutions was most strongly felt by the Small and Medium Enterprises (SME) sector, which were being stifled by the lack of credit support offered by traditional financial institutions. FinTech promises solutions to the bottlenecks that are inherent in the traditional financial systems.

Over the past decade, the Small and Medium Enterprises (SME) sector has emerged as an important part of the Indian economy, with 36 million units, providing employment to over 80 million people and contributing about 8% to the country's GDP. However, this critical sector faces several hurdles in raising funds the traditional way due to stringent eligibility criteria, long processing times, high interest rates and rigid lending terms and conditions of traditional lending solutions. Mostly, traditional financial institutions were reluctant to sanction loans to smaller companies or lowering interest rates as these enterprises are perceived as being high risk entities from a credit perspective. Banks typically charge 10-20% interest on loans. If SMEs don't the meet the criteria set by banks for availing a loan, they turn to informal money lenders for finance. These lenders charge exorbitant rates of interest, ranging between 36-70%

This led to a huge mismatch between the demand and supply of funding, often resulting in the SMEs having to shelve expansion plans or even shut shop.

FinTech emerged as an innovative way of securing funds quickly and easily. SMEs are now able to apply online by uploading all the necessary documents. The algorithms being used by FinTech companies are capable of executing the initial screening in minutes. Moreover, cutting-edge technology allows FinTech companies to offer a lot of flexibility to SMEs. They can now raise smaller loans for shorter timeframes and pay lower interest rates.

The future of FinTech in India

The global FinTech sector is expected to become $45 billion in value by 2020, growing at a CAGR of 7.1%. India would play a critical role, given that the backdrop is highly supportive. The Indian FinTech market is expected to reach $2.4 billion by 2020.

FinTech has bright growth prospects. One of the factors that could propel the growth further would be partnerships between this dynamic sector and the experienced traditional banking sector. Collaborations between the two can bring together the best of both worlds and offer unique products to a larger number of people in India. Recent partnerships between FinTech companies and traditional banks clearly suggest that two entities needn't necessarily compete, but can co-opt. While banks can offer voluminous amounts of money for lending purposes, FinTech companies bring technological expertise, customized credit products and advanced data analytics to the table.

The FinTech sector has young businesses that need help in reaching their true potential. Incubators and accelerators can mentor these businesses and assist them in competing against the big players in an extremely challenging, cost-conscious Indian market. ■

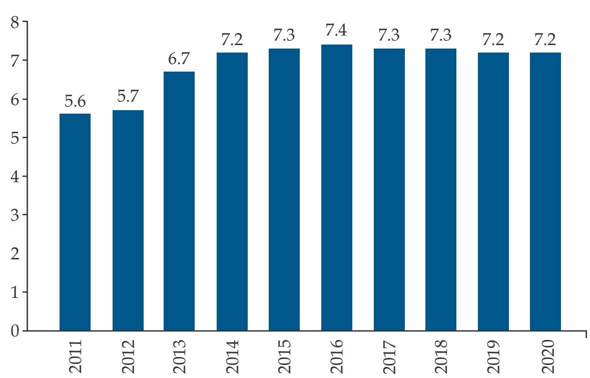
Gaurav Hinduja, *Co-Founder & Managing Director, Capital Float*: Gaurav Hinduja co-founded Capital Float, an online lending platform, in 2013. Under his direction, the company has grown to become the largest digital lender to SMEs in India. As the Managing Director of Capital Float, he continues to drive leadership in the FinTech space through numerous strategic partnerships with industry leaders in the e-commerce, travel, hospitality and trade segments. Gaurav has played a key part in Capital Float's evolution of becoming the leading digital marketplace for SME lending. He was the COO of Gokuldas Exports and possesses immense experience in operations and complex supply chain management. Gaurav holds an MBA from Stanford University and graduated from Christ University in Bangalore with a distinction in commerce.

Taking on the Indian Financial Goliath - The Story of the FinTech David

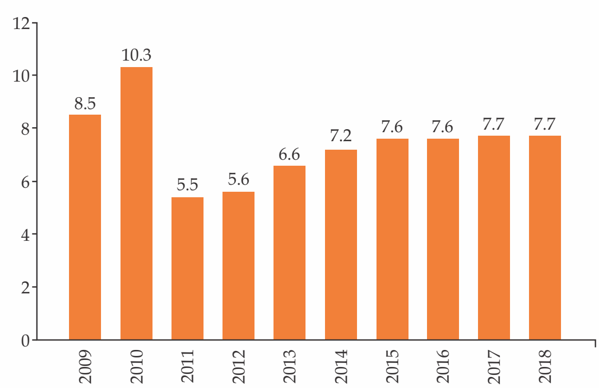
Harsh Vardhan Lunia
Co-Founder & CEO
Lendingkart Technologies Pvt. Ltd.

One might be curious about how FinTech will fare in India, where the literacy rate is at around 74%, mobile internet penetration is iffy and adoption of technology in Tier 2 and Tier 3 cities is comparatively low. In retrospect, we also know that while growth of the global economy has been seeing a particularly lacklustre figure for a couple of years now, India's economy still boasts of a GDP growth of more than 7% as per various sources, cited below. The fiscal situation is not undermining and the growth of mobile internet users is staggering as per the statistics presented by IAMAI reports of 2016. Added to that, with a population of 1.3 billion people, mobile subscriptions in India had already reached 1 billion users by February 2016.

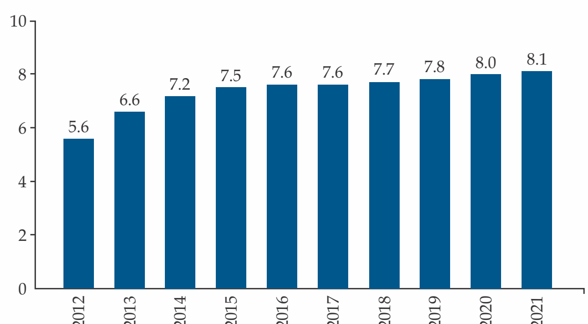
Economist Intelligence Unit (EIU) Forecast



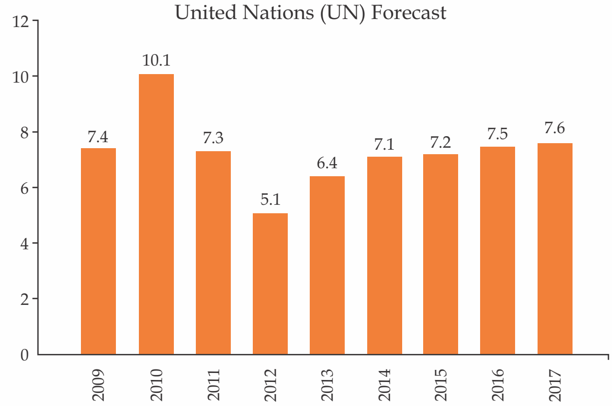
World Bank (WB) Forecast



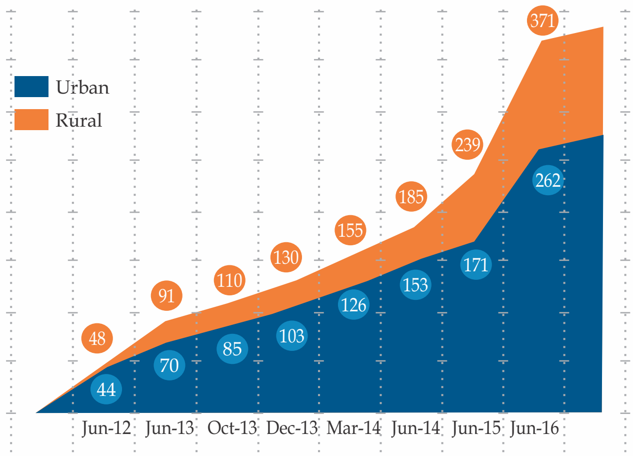
International Monetary Fund (IMF) Forecast



United Nations (UN) Forecast



Mobile Internet Users In India Urban vs Rural



Source: IAMAI

Taking all these figures into consideration, the in-situ conditions for startups and in specific, FinTechs organisations are great. All the segments of FinTechs space be it, e-wallets, crowdfunding, remittances, asset management, insurance, share trading, credit cards, consumer lending, payments or business lending, are witnessing traction from entrepreneurs and venture capitalists alike. India, with its gamut of under-penetrated categories of financial services is ripe for a FinTech revolution.

Let's take a comprehensive look at a SWOT analysis for FinTechs in India.

Strengths

1. Rapid adoption of smartphones/portable computing devices due to declining average selling price
2. Good growth of economy at 7% plus GDP
3. Recent move of demonetization
4. Government's push towards digitization of payments

Weaknesses

1. Invasive red tape policies
2. Low ratio of business registration to business operation
3. Poor internet connectivity across the nation, especially in rural and semi-urban areas
4. Low penetration of technology in Tier-2, Tier-3 cities

Opportunities

1. Under-penetrated financial services
2. High TAT for approvals and/or rejections
3. Non-transparency in processes
4. Traditional financial institutions not very tech-savvy

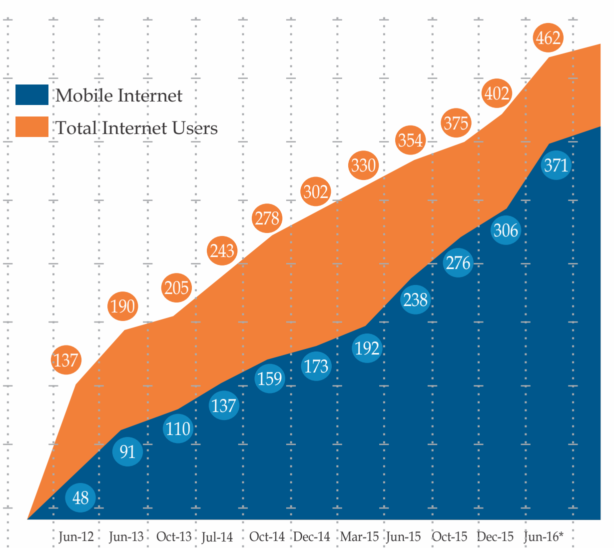
Threats

1. Low financial inclusion
2. Non-trusting populace when it comes to their financial information

From the above, it is evidently clear what can be banked upon when concerning the growth of FinTech in India. Non-transparent processes and lower reach of traditional financial services give smart and digital FinTech companies a definite winning edge. The FinTech industry should bear in mind that it is operating in a former predominantly cash-based economy that has been goaded into a 'less-cash' model. While businesses and people will be trying their best to go digital, there will be gaps that would require impeccable customer service to bridge the provider and the customer.

The expected internet user base in India is supposed to outweigh its counterpart in the United States soon. As of 2014, India stood at the third position as far as number of internet users mattered. In the same study, it has been found that majority of these users have been within the ages of 15 and 44 years. This customer cohort has huge potential when it comes to using and adopting new technology.

Growth of Internet Users vs Mobile Internet in India 2012 - 2016



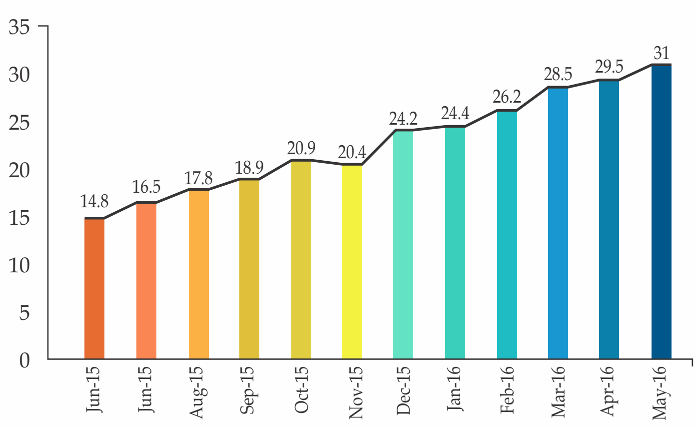
Source: IAMAI

Post the demonetization move, the association of banks with FinTech players can be considered a symbiotic relationship that can benefit both parties. Considering that the top categories in Indian FinTech are alternative lending, consumer finance, investment tech and mobile wallets, the reach of banks can be geometrically expanded across the nation by partnering with these customer-friendly options. In the cases of NBFCs, alternative lenders can help provide more customers to banks using digital means and evaluate thin file customer using alternative data sources to access credit worthiness. In the same spirit, mobile wallets allow merchants to send/receive payments from a variety of banks and the same also happens through payment processing firms. Banks can, of course, develop applications of their own, the Unified Payment Interface being one of them. But the base principle that banks operate on requires a physical location. Fintech companies are more or less immune to this due to their model of 'paperless and presence less model.

With a push towards a 'less cash' economy being unavoidable, the trend of banks partnering with FinTech companies has already picked up. From the FinTech point of view, apart from having access to a larger consumer base, startups will become more organized owing to the established norms provided by banks. That in turn, will allow a steady growth rate to aspects of the FinTech business that are not overtly disruptive or innovative.

With online transactions in banks on the rise, banks continually need to improve on their technological architecture to cater to a population that takes time to adopt new practices but is quick on the uptake once the learning curve is met. To state the obvious, here are some statistics from NPCI showing how IMPS transactions have increased over the past year. The trend is headed upstream going by the recent changes announced by the government.

Number of IMPS Transactions in India



Source: NPCI

FinTech as an industry is expected to perform better and outlast the boom that ecommerce experienced. That is not solely due to the fact that it deals with the lifeblood of every transaction, but also because it allows multiple benefits to the end-user.

While funding and regulatory support are still in the nascent stages in India for the FinTech industry, entrepreneurial and innovative mindset is gaining steadily, boosted by technological readiness and congruent business environment. Government incentives are an area that is still in the grey but that will be changing for the better to aid in the development of digital India.

How the Indian FinTech playing field looks like

There are several themes that FinTech can adapt to, and thus revolutionize the financial services sphere in India. Payments, P2P lending, bank in a box, financial inclusion, robo-advisory, security and biometrics are ways in which FinTech companies can leverage their technological capabilities.

Payments comprise the most popular startups in India due to the capability to empower customers to carry out their business in a hassle-free manner as far as sending and receiving money is concerned. UPI introduced in many banks now is a precursor to how digital payments will be defined in the future. FinTech firms specializing in payments and trade processing account for nearly 46 percent of the Indian FinTech industry. After payments, come P2P lending companies that allow customers to engage on a community level with lenders. While next-gen payments allow easier business transactions, P2P lending along with alternative lending allows easy access to personal and business finance. A community spirit fosters accountability, transparency and knowledge sharing among peers. 20 new P2P lenders have come up in India in 2015.

But what about new players that are trying to get a foothold in the FinTech sector? Bank-in-a-box solutions allow new entrants like payment banks and amalgamated regional rural banks to quickly adopt standard banking regulations and scale up their business efficiently. Thus, financial inclusion is being jet-propelled forward, also owing to various government-led initiatives. FinTech companies are on the same ride, being accelerated towards growth. Plans developed in line with India Vision 2020 aim to bring financial exclusion down to a single digit. As clearly as it can be observed, the rate of adoption and maturity of this theme is at an all-time high.

Block chain methodology can aid the FinTech industry in becoming better at leveraging existing technology and making innovations on a more rapid scale. Making smaller transactions simpler, robo-advisory is a nifty feature that is still in its growth phase. Portals like Bankbazaar and Policybazaar are providing crucial financial management features to customers by implementing robo-advisors. Aadhaar-linked biometrics are the first step towards a secure FinTech space. Banks are already exploring voice-recognition systems to help in authorizing transactions. Technology plays a vital role here and FinTech players are not going to be left behind in this race.

The current markets where the FinTech hub is at its best operational frequency are the United States, Hong Kong, the United Kingdom and Israel. Based on entrepreneurial & innovative mindset, government incentives offered, technological readiness, compliance with regulatory support, business environment and funding options, the mentioned regions are a haven for FinTech companies. India, by the same standards, still is an emerging market, with none of the factors at a mature stage. Efficient push from the government and growing popularity of cashless transactions will pave a better path for the FinTech industry to tread on. A value-add to financial service providers and customers can be provided only through a smart congruency of FinTech, banks and non-finance technology firms. The increasing acceptance of e-wallets, electronic transactions and mobile banking are the harbingers of a truly mobile and unhinged financial experience for the nation. ■

Harsh Vardhan Lunia, *Co-Founder & CEO, Lendingkart Technologies Pvt. Ltd.*: Harshvardhan Lunia is the co-founder and CEO at Lendingkart Technologies Private Limited. He drives the primary aspect of business in the company: Designing innovative credit solutions and delivering them in the simplest and most efficient manner to SMBs. Harshvardhan had about a decade of experience in corporate banking before he embarked on an entrepreneurial route.

He started his career with large private sector and multinational banks in their small loan divisions. He has worked with top companies like ICICI Bank, Standard Chartered Bank and HDFC Bank. Early in his career, he was intrigued by the passion of small business owners who despite being creditworthy were not served by existing lenders. Additionally, he understood the anxiety one went through waiting for credit decisions to come through, which, in banks can take months. This is what spurred him to do something of his own in this sector, replete with opportunities. In December 2010, he launched Domestic Finance & Investment Private Limited. Lendingkart was incorporated in April 2014 with a vision to provide financing solutions to those who are creditworthy but would be overlooked by traditional financial institutions.

His vision is to implement Big Data credit scoring with analytics and artificial intelligence. He wants to make Lendingkart synonymous with an online credit provider that has the simplest and most efficient loan delivery system, the easiest access and the most flexible terms. He plans to helm the expansion of Lendingkart by leveraging cutting-edge technology and data analytics for credit appraisal and cash management.

Harshvardhan is a Chartered Accountant and has completed his Post Graduation from the prestigious ISB (Indian School of Business, Hyderabad). In his free time, he loves walking and exploring the world with his wife.

Emerging New Trends/Technologies in the Online Lending Space

Akshay Mehrotra
CEO
EarlySalary

2017 will mark the year of FinTech and online lending ecosystem innovation. For the past 6 years most online disruption has taken space in the e-commerce & e-classified space. This is will see the largest see tech start-ups disrupting the traditional banking ecosystem. The ecosystem is aiming to improve both consumer credit side and SME credit pain points where traditional banks and financial institutions have left many pockets unattended for the FinTech players to disrupt and provide technology layered lending products.

Taking of the C out of the COD

One of the biggest factor to the e-commerce growth story in India has been Cash-On-Delivery with nearly 60% of all transactions today being COD. From this 60% around 60% result in return/cancellation on delivery causing the biggest pain point in the e-commerce growth story today. To solve this problem, many FinTech players are entering into this place to build concepts like Pay Later, Credit on Check-Out etc basis credit check and small unsecured loans which offer similar services like BillMeLater from PayPal and PayLater by Wonga from the West.

EMI on consumer durables and consumerism on monthly instalment

Bajaj Finance & Capital First have dominated the consumer durable finance category for nearly 7 years now and FinTech players are entering this space to disrupt this market. From offering EMI options to students to credit without a credit card, building complex machine learning credit scoring and social profiling systems to lend faster, the new age FinTech players will disrupt the current consumer durable credit market considerably.

Instant cash advance/loans

Traditionally banks offers over draft facilities and a few companies offers salaried loans to employees. players like EarlySalary are disrupting this market by offering instant cash loans on a mobile app to salaried individuals for tenures less than one month.

Disrupting the credit score driven by Credit Bureau's

Traditionally, CIBIL score is what you need to get any form of credit. But this is very age bias and relies on banks and other institutions submitting their portfolio data to financial bureaus. Today many new FinTech start-ups are either focusing on building a new credit score using multiple data sourcing combing credit bureau reports to social media profile of the user to make their decision faster and more accurate.

Financier disruption with Peer to Peer (P2P) model

P2P model is changing the landscape of capital provider for lending. Traditionally banks and NBFCs borrowed to lend to others, and customer had to approach these institutions to borrow. Peer to

Peer platforms act as catalyst for anyone to become a lender and offering his cash as credit to anyone in need of credit. These platforms act as big catalyst for growing the lending space. SME finance and working capital funding has got mass acceptance in a very early stage already and many FinTech players are operating in this market already.

Author of this article, is the Co-Founder and CEO of EarlySalary.com. EarlySalary is a short term lending platform which gives cash loans to working individuals via a mobile app.

EarlySalary looks at combining social media profile of a applicant to the Credit Bureau data and decides on a loan request within 10 minutes. EarlySalary, India's 1st mobile app based FinTech player started in Feb, 2016 and has already received 250000 app downloads and loan requests. ■

Akshay Mehrotra, *CEO, EarlySalary:* Armed with a Master's Degree in Business Administration from Symbiosis Pune, Askhay Mehrotra is now spearheading his own Start-up venture EarlySalary along with two other partners.

EarlySalary is a Fintech Start-Up which uses new age technology for lending funds. The company aims to deliver a revolutionary new business model set to change the lending market in India by introducing ultra short term loans.

Prior to this, Akshay was associated with brands like Future Retail Ltd, PolicyBazaar.com, Big Bazaar and Bajaj Allianz Life Insurance Co. Ltd. An exemplary leader, Akshay brings with him a rich experience of 12 years in strategic planning and marketing. He has been conferred as one of the Most Talented CMO of the year award in 2013 – 2014 in the retail space, by CMO Asia.

As the Chief Executive Officer at EarlySalary, Akshay oversees the implementation of the company's product strategy and is focused towards building the business and building EarlySalary as a Financial Institution. Akshay has a sharp business mind-set with attention to details. An unwavering passion for customer service, he believes that one of the biggest features and the most significant competitive edge of any company is giving personalized attention to the customers and this is what he and his team strive to achieve.

In his leisure time he likes to go for short trips, exploring new places and spend time with his family.

Aadhaar Enabled Digital Process Transformation in Indian BFSI Sector

Sanket Nayak
Co-founder
Digio

FinTech has emerged as a dominating theme globally in the last couple of years. While the disruption in payments started long back with Paypal & Alipay emerging as prominent players, other themes have emerged only in the last few years.

The story in India is no different. There are 80+ startups in the FinTech space in India and can primarily be classified into following segments: **Lending, Investments and Payments**. Even large financial institutions are now either developing their own applications to cater to these themes or actively collaborating with these startups.

However, one of the core components responsible for and powering the growing adoption and success of these companies remains the "Enablers" which work "under-the-hood".

While these businesses continue to innovate, if conventional businesses like Banks, NBFCs, Mutual Funds, Brokerages etc need to catch up, they too need to leverage such enablers.

One of the key enablers common across the spectrum is "Identity linked Digital Customer Onboarding & Service Delivery". This is essential for frictionless, cost efficient and fast service delivery. Thats where Aadhaar as a singular identity and authentication platform comes to play.

Various applications can be built on top of this to provide paperless, hassle-free customer on-boarding experience which is legally compliant, secure, consent driven and non-repudiable.

With 1.09 Billion people having Aadhaar (more than 93% adults in India have Aadhaar), businesses should be looking at working with companies building products leveraging Aadhaar. Coming to its impact;

- The cost of service delivery can come down from Rs. 1200-2300 to Rs. 75 per customer and;
- Time taken for service fulfilment could be reduce from 7-10 working days to few minutes, and all this disruption can at scale
- Paperless processes can bring down the cost of operations by approximately 70%

The facility to prove your identity using biometrics and authenticate a transaction and digitally signing documents remotely using OTP/Biometrics, opens a whole new realm of opportunities.

Think of it, you could open a bank account, get a credit card, or open a demat account from the comfort of your home/workplace without:

- Having to fill lengthy forms
- Physical signature
- Visiting a branch or someone coming to your doorstep to get your signatures and documents.

All this can now happen in a completely paperless & presence less manner.

Think of it, the aforementioned FinTech startups primarily cater to the top 37-40 million of the population (with the exception of wallets). Investments, credit & insurance for the bottom-of-the pyramid, which is fundamental to financial inclusion and social security is still primarily dominated by large financial institutions. Last mile banking currently not being a profitable operation, this could fundamentally change things.

Next steps

Identity is fundamental to any business and a consumer's identity is singular, while his/her service provider relationships could be multiple. How do we efficiently manage the consumer's identity and documents (which do not change with industry/use case) across his/her multiple service relationships ? That is the key question that needs to be addressed. This calls for a "digital infrastructure" connecting the consumer, businesses and government authorities. Few key points therein would be:

- Consent driven architecture
- Paperless, presence less flow of information
- Harmonisation in KYC policies and guidelines by Central Regulators

Global firms like Boston Consulting Group, Credit Suisse and MicroSave have also emphasized the need to go digital in banking operations in multiple study reports. One of the excellent reports to study is "The Digital Banking Report - 2014" by BCG which covers all these aspects and calls out for the need of a truly digital banking industry.

PMJDY as a case study for digital service delivery

The Pradhan Mantri Jan Dhan Yojana (PMJDY) is a classic case study wherein 26 crore bank accounts have been opened in record time. It is important to note that of these accounts only a meagre 23-24% accounts are zero balance accounts. This augmented with Banking Mitra/ Business Correspondent model for cash collection for deposits, mass roll-out of Rupay Cards, conversion of Kisaan Credit Cards to Rupay Cards, Micro ATM infrastructure would further reduce the number of zero balance accounts.

Now basis this, aside to government subsidies, financial institutions like banks now have a medium for distribution of credit products, Insurance companies can provide micro-insurance products, to the erstwhile unbanked population.

Emerging case studies

DBS and IDFC Bank have recently emerged as pioneers in digital practices. Taking a leaf out of the telecommunications industry, Reliance Jio is a classic example for digital service delivery.

The Future

Death of wet-ink signatures

As the demography shifts from writing with pen-paper to typing on computers, our physical signatures are prone to mismatch resulting in declining of cheques, debit mandates etc, which today work on wet-ink signatures. Also, the only way to establish the authenticity of a wet-ink signature for possible fraud is using forensics. It is time, that the industries adopt legally accepted, non-repudiable Aadhaar based digital signatures across the board, so that its fraud proof, tamper proof, secure and cost efficient

1-Click Service Delivery

As a consumer, all your documents could be stored on your mobile/cloud, and whenever you apply for a service (eg: bank account, credit card, loan etc), the business could fetch this information with your consent and pre-fill the forms by extracting information from these documents, obtain your digital signature on the documents online.

Anywhere banking

There could be mobile devices with biometric sensors at the nearest Kirana store, taxi or even your workplace that you could use to prove your identity remotely. In Banking, this could abstract out the documentation and in-person verification part from the conventional not so profitable top-down business correspondent/facilitator model.

Death of plastic cards

Someday we could see plastic cards becoming obsolete for cash withdrawal at ATMs or for transactions at point-of-sale. All you need is to know your PIN (passcode) and authenticate using your Fingerprint/Iris. There could also be biometric verification hubs which can be leveraged by businesses rather than investing in capex. This will significantly bring down the cost of KYC and operations.

Single View

Similarly, other data intelligence models will emerge with time. With a unique identifier like Aadhaar if seeded and available across data records (deposits, credit, insurance, investments), a comprehensive "single view" of the consumer's financial health could be arrived at for investment advisory, prudent credit decisioning etc.

To sum it up, it is imperative that for financial inclusion to happen, digital inclusion needs to happen first and everyone has a role to play here:

- **Consumers**: Adopt digital practices for secure, hassle-free and faster service delivery
- **Government**: Continue providing conducive policy environment for digital inclusion
- **Central regulators**: To come up with unambiguous and harmonised KYC guidelines
- **Large businesses**: To serve as the adopters & benefactors of this disruption by partnering with technology companies and bring in the "pull-factor" and "trust" into the equation for the consumer
- **Technology companies**: To build applications to enable this digital infrastructure

If this is achieved, it will be a leapfrog moment for India's banking and financial industry and could translate to a minimum of 10,000 crores of operational cost savings over next 5 years. ■

Sanket Nayak, *Co-founder, Digio:* Sanket is the Co-Founder of Digio (www.digio.in), a Bangalore based company, building products for bringing paperless, presence less, hassle free service delivery to business processes for Digital India. Within 5 months of launching its first product, Digio is currently integrating with more than 50 businesses across Banking, Brokerage, Insurance, Consumer Lending, SME Lending, P2P Lending, Taxation etc.

Prior to Digio, he was responsible for Twitter's product portfolio for emerging markets, early member at ZipDial through its acquisition by Twitter Inc. serving as its Director of Global Operations, responsible for scaling India operations and setting up its international operations in 4 geographies. Prior to ZipDial, he was part of the early core team member of High Mark Credit Bureau through its acquisition by CRIF S.p.A. and has worked with Banks, NBFCs and MFIs closely. He has also been part of multiple other organizations in his career spanning a decade. Sanket holds a Masters in Astronautical Engineering from University of Southern California (USC), Los Angeles, Masters in Space Studies from International Space University (ISU), Strasbourg, France

India Stack – Moment in the Sun for Indian Capital Markets

Karthik Rangappa
Vice President – Education & Research Services
Zerodha

Talk about the Indian 'FinTech' industry, and you will soon be diverted to advancements in technology and user experience in the digital payments space. Predominantly, all discussions on FinTech revolve around this one particular industry sub domain. This is understandable, as nearly 50% of the new FinTech startups are focused on this particular theme. However, the 'FinTech revolution' extends beyond the digital payments space and spreads to every possible traditional financial service you can think of; be it lending, investment management, financial advisory services, banking, or even stock broking. These advancements are expected to introduce financial services to millions of Indians, who are otherwise not financially included. If you breakdown the FinTech architecture to its elements to investigate how this mass inclusion is even possible, at its core, you will find 'India stack'.

India stack, with its set of open Application program interface (API) and digital infrastructure, packs in different technological layers. Each of these layers enables a wide range of possibilities. For example, the Unified Payment Interface (UPI) layer allows the exchange of payments (across banks/wallet accounts) in a real-time environment, much like the traditional, physical form of cash. The payments facilitated via UPI are not just real time, but also have the added advantage of being digitally accounted.

On the other hand, the 'Unique Identification Authority of India's' (UIDAI) 'Aadhaar' layer can digitally authenticate the identity of a person. So far, there have been nearly 3 billion Aadhaar based authentications and over 340 million Aadhaar linked bank accounts. As a natural progression, Aadhaar based authentications would lead to digitization of records a.k.a. paperless documentation. These developments have a significant effect on capital markets, particularly the way new participants can be on boarded.

It is quite unfortunate that a country like India has lesser than 2% of its population participating in the capital markets. One of the major reasons for such a low number is the manner in which a potential market participant is on boarded. For instance, a person willing to open a 'Trading and Demat account' has to deal with the ordeal of printing forms, pasting photographs, 30 signatures, and couriering these forms. Furthermore, one also has to sit through the 'in person verification' process which requires a verifying officer to physically verify the identity of the potential the account holder.

Naturally, this very first step of 'account opening' itself acts a huge barrier for anyone willing to participate in the capital markets.

However, the Aadhaar based eKYC process is set to change this cumbersome process of on boarding. The entire 'Know Your Client' (KYC) process has been greatly simplified with the Aadhaar based eKYC. One can now fill up the online application from the comfort of his home, upload the necessary documents, and request for a verification. At the back end, the financial intermediary (a stock broker for example) will authenticate these details with the UIDAI's central data repository and get a 'yes/no' response. As an additional layer of check, UIDAI sends out a onetime password (OTP) to the mobile number registered with the Aadhaar number. Needless to say, the OTP should match before the submission of the application.

So essentially, we are talking about opening a 'Trading and Demat' account (or even a bank account) in a matter of few minutes as opposed to a cumbersome process, which currently takes many days.

In fact, digital signing platforms, which are again built on top of the Aadhaar layer, further enable the digital on boarding process.

Clearly, the new digital on-boarding process is user friendly, as it requires no paper, no ink, no photocopying, no messy glue, or couriering of forms. Things happen at the click of a few buttons, at the comfort of the customer's house, and the results are instantaneous.

Add to this, the ease with which payments can be processed real time with the UPI layer, we are basically looking at a completely digital, transparent, and user friendly eco system.

India stack, with its set of open APIs, is poised to revolutionize the way business is conducted. This is perhaps one of those rare moments, where the government has taken a huge step forward, and asking the corporations to catch up. This, perhaps, is a very good problem to deal with. ■

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Cryptography: The Vault for Today's Banks

Ankit Ratan
CEO
SIGNZY

Introduction

Cryptography is a sub-field of theoretical computer science. It leverages advanced number theory and hence needs a strong background in mathematics. Inspite of its abstract background, it is already widely used in everyday applications. All digital communications today leverage some form of public key cryptography. Emails are a prime example. As banking goes digital, cryptography would play a major role in ensuring security and establishing trust.

Recently, when the Edgartown Bank in Massachusetts, USA needed more space, they made a decision to do away with their steel enforced vault built in 1850. What seemed to be a simple re-furnishing task turned into a mammoth demolition exercise! Its only when they started digging deep, did they realise that it wasn't that the vault was put in the Bank. But the bank was built, around the vault. Thus removing the vault meant destabilizing the complete infrastructure.

This small instance reveals a very important aspect of banking. Safety is paramount. Banks have constantly been the biggest buyers of safe and vaults. Thus companies creating locks and vaults have been strong partners in banking growth.

Even today, banks pay tremendous attention to detail as regards safety and security. The vault of the Federal Reserve Bank of New York is safeguarded by a comprehensive multi-layered security system, the highlight of which is a 90-ton steel cylinder protecting the main vault. The only entry into the vault creates an airtight and watertight seal which is impenetrable.

This security is important as banks have always thrived on the notion of trust that customers place in them. Direct evidence of this principle is in the fact that banks act as guardians of the currency of their customers. Customers deposit large sums of their savings in banks. They do believe that they would be able to withdraw the entire amount when need be. But banks deal with monetary values and transaction amounts which are far greater than the actual amount of currency present. And hence the entire banking system fundamentally relies on this consumer trust in banking.

Need for security

When the infamous thief Willie Sutton was asked why he robbed banks, he answered, "Because that's where the money is." While the witty comeback still "holds up" today, the weapon of choice now is more likely to be a pen/computer than a gun. The business of a bank/financial institution is constantly under threat from menaces of robbery, or even fraud. Banks have always placed tremendous value on ensuring high standards of safety and security.

The advent of technology has made fraud-inducing practices more prevalent and sophisticated. A survey on financial trends made by PwC found that financial frauds led to approximately $20 billion (Rs 1.26 lakh crore) in direct losses annually.

The same report states that as 75% of the population of India has a mobile phone, 'banking on the go' has become the norm. With volume of mobile banking transactions going up from INR 1819 crore in 2012 to INR 1,01,851 crore in 2015, the shift towards digital banking seems obvious.

Cryptography

As the world moves to digital there is a corresponding need of this "impenetrable" safety and security in the digital world. Cryptography is the answer.

Cryptography has four key attributes:

1. *Confidentiality*: The protection of information and prevention of unauthorized access;
2. *Privacy*: Protecting the personal information of individuals;
3. *Non-repudiation*: The inability to deny an action took place; and
4. *Integrity*: Assurance that information cannot be manipulated.

As banking moves digital, cryptography will become as important as the steel vaults were in the yesteryears. It will play a crucial role in preventing electronic fraud thereby ensuring the validity of financial transactions.

The Indian eco-system though has largely neglected this area. The Indian government also has not been proactive, unlike its western counterparts, in creating standards. Indian banking's rapid digitization should be parallely supported with advancement in security practices. Building skill and knowledge base in cryptography might be a good starting point.

Cryptography also powers one of the most rapidly rising finance technology - Blockchain.

It has driven businesses to re-imagine how their networks operate and has become synonymous with alternative business models. At its core, however, Blockchain leverages hash and public key encryption algorithms. These two form the major pillars of cryptography, as well. The benefits of Blockchain are well known today. It enables confidentiality, privacy and security of data and user identities. Apart from its security benefits, Blockchain also increases the speed of different transactions. Thus, it is being seen as the modern equivalent of the internet.

Companies that can effectively leverage Blockchain would as a result create distinct advantages for themselves. But success in Blockchain technology will also need a good understanding of cryptography. Hence the need for investment and focus in this area cannot be overstressed.

Lock and vault makers were strong partners for banking in the 19^{th} and 20^{th} century. Startups today can fill that space when it comes to the digital world. There are an increasing number of startups offering services in security, digital identity and Blockchain.

Conclusion

Banks in India have started realizing that consumer experience and ease of banking are very important. This has led to several collaborations between the FinTech start-ups and banks. What would probably be the next wave is tie-ups with startups focussing on digital security. This will help banks bring the "offline" trust to the online world. Banks which focus on digital security and safety are more likely to build consumer trust in the coming future. Thus it is safe to say that cryptography may hold the 'key' to winning this digital world. ■

Ankit Ratan, *CEO, SIGNZY*: Over 6 years of experience working with financial institutions. Worked for boutique Analytics firm in US deploying AML/CFT solutions at Citi Bank and Metlife. Started own company in Analytics in India in 2013, worked with Axis Bank, Maersk and Benetton helping them with Analytics needs specializing in fraud analytics. Was silver medallist at IIT Delhi where he also published 3 research papers and a patent.

Currently building Signzy, where we use cryptography, Artificial Intelligence and India Stack to build trust APIs for digital banking.

FinTechs & Banks: Together Creating Value for Customer

Amit Sachdev
Co-founder and CEO
CoinTribe

Two speed world – Innovation friendly Vs BAU industries

We are fast witnessing the emergence of a two-speed world. One end of this world is witnessing technology driven disruption in innovation friendly industries such as e-commerce, telecom, travel and tourism, logistics etc, while at the other end there is Business As Usual (BAU) in industries that are insulated from significant competition due to regulations, government control, capital intensive nature or involving technical complexities such as infrastructure, utilities etc. The constant focus on building competitive advantage through enhancing user experience, simplicity, convenience in innovation friendly industries, as experienced in Uber, Airbnb, Paytm, etc is taking customer expectations to a new high every day. With customers using the lens of innovation friendly industries to also judge the quality of products and services offered by BAU industries, the gap between customer expectations and what BAU focused industries offer is widening. The end-result on customer satisfaction levels in BAU focused industries is anybody's guess leaving room for a new entrant with slightest of innovation to cause disruption.

Banking - Innovation friendly or BAU industry?

This question doesn't have an overarching answer but needs to be looked at in the context of three different aspects of Banking – liabilities, transactions and assets. Opening up of Banking industry to private competition in four different phases between 1994 and 2016 has led to liability customers benefiting from several technology-driven innovations. With Internet Banking, Mobile Banking, tab based banking, ATMs, Cash Deposit Machines and now Bots based customer services, liability side of banking has been one of the early adopters of technology. Given larger amount of bank's focus on retail liabilities and the increasing competition, these innovations helped private banks garner large share of liabilities from public sector banks.

On the other hand with respect to transactions, while some banks could build profitable models around small ticket retail transactions, most banks found this as economically unattractive. Since this area was opened-up to non-banking players, multiple FinTech models with technology led innovations have emerged with focus on easier transaction enablement such as mobile wallet, POS aggregators & payment gateways. The exponential growth of some of these models is testimony to how small ticket high volume segments can be made profitable using technology effectively. Banks have now begun to collaborate with these FinTechs to offer state-of-the-art solutions to their customers and leverage the tremendous potential this part of business offers.

Asset side of banking has, however, seen the least amount of tech innovation so far. With less than 70% of bank's asset base to be deployed in loans and over 50% share of corporate segment in the loan market compounded by vast unmet need in MSME lending, the competition in retail and MSME loan segments has been relatively less compared to liabilities thus, reducing the urgency of technology led innovation. Additionally, unlike liabilities, the banks here control the supply and have therefore had less of a 'woo'ing role. Consequently, the processes and associated efficiencies involved in Retail and MSME loans and have largely remained the same over the years with plenty of manual intervention at each stage. Turn-around-times (TAT) of 15-20 days and complex processes involved for Small business loans that was okay till a few years back suddenly seems arcane to customers who have become used to simpler processes offered by likes of Amazon, Uber, Paytm etc.

Much like the transactions space, this leaves significant room for FinTech companies to emerge in each part of the loan value chain – customer sourcing, onboarding, credit risk assessment, pre-disbursement operations, collections, customer servicing. While several FinTech models have emerged in online customer acquisition, little has been seen on use of technology in the complex area of risk assessment or in digitizing the complete application to disbursement process – which is increasing being enabled by the India Stack.

Banking ecosystem is structurally not conducive to technology led innovation. Multiple elements in banking ecosystem such as limited competition given licensing requirements, philosophy of (over) compliance, large and complex organizations with multiple decision contributors (not makers) that slow down decision making etc. make it difficult to incentivize and breed innovation in Banking DNA.

Partnership between Banks and FintTechs: Potential Solution?

Partnerships between banks and FinTechs offers a win-win solution for all - customers, banks and FinTech players through rapid and breakthrough innovations at scale. Banks have deep capabilities to contribute to such innovation in the form of significant experience and knowledge of customer needs and preferences, banking products, credit modelling, operations. Banks have brands and large distribution footprints. They also have rich data on each of these areas to aid analytics and decision making for various aspects of business model innovation – something out of which FinTech players with advanced analytics can create very profitable models.

FinTech companies offer the nimbleness and agility required for quick pilots and experimentation in the form of flexible technology systems and new development in an agile manner. They also offer outside-in perspective and first principle thinking on how to solve some of the complex issues simply and with good user experience.

An ideal partnership model between banks and FinTechs would involve co-innovating the business model by leveraging the strengths of both partners. While this business model design would offer some clear answers, there would be quite a few hypotheses to be tested. The tech platforms of FinTech partner can be used for rapid prototyping and multiple pilots across segments and geographies to validate these hypotheses. Basis learning from pilots, the model and technology platform can be defined more sharply thus, significantly improving the chances of success as this model is rolled out and scaled up. More importantly, the partnership model should focus on a regular feedback loop so that business model and tech platform can be tweaked on an ongoing basis to keep pace with changes in customer needs and evolution of the ecosystem around.

There are multiple partnership structures – Joint Ventures, Equity stake, Acquisition, Start-up Incubation arms, FinTech focused VC funds, transactional partnerships - that can be potentially used for this purpose. As mentioned in a recent report1, large majority of banks prefer to engage through equity participation with FinTech companies. This enables both partners to work in an open environment of trust and brings out the best form both partners. However, it is important for banks to be very careful in selection of FinTech partners. It is important for Banks to partner with FinTech having complementary capabilities and focus on constant innovation. Trust is the hallmark of bank's relationship with customers and banks have strong brands and reputation to protect. Hence, it is important for banks to work with partners who are credible, have strong management and promoters backing. ■

[1] PwC Global Fintech survey 2016

Amit Sachdev, Co-founder and CEO, CoinTribe: Amit Sachdev is the Co-founder and Chief Executive Officer of CoinTribe, the leading online loan disbursement platform. Amit aims to revolutionize the lending processes in India, make it completely technology-driven and enable CoinTribe to emerge as the largest online lending marketplace of our country. His alma maters include IIT Varanasi as well as IIM Lucknow and has served prestigious Boston Consulting Group as a Principal.

He has worked closely with several prominent financial institutions and has assisted them with new business build, strategic planning, design and execution of transformation agenda, digital agenda, product-growth strategy, risk management, and many more key business problems. Amit's expertise in the field has also been tapped by upcoming banks and he has played a pivotal role in framing their banking application, competitive strategy, bank set-up plan.

The Emergence of FinTech in India

Deepak Sharma
Chief Digital Officer
Kotak Mahindra Bank Ltd.

In the last couple of years, we have witnessed the making of FinTech in India with several successful companies, marking their presence at Asian/Global level. As FinTech reaches the adolescence phase, it is showing confidence and seeking recognition from peers and others alike. FinTechs are looking at incorporating global best practises in the Indian context keeping consumer insights & broader ecosystem in mind. The FinTech opportunity in India has five broad dimensions - Ecosystem, FinTech companies / start-ups, Banks & Financial institutions, Consumers and Regulators.

Ecosystem

In the last 5 years, India has built one of the unique and robust infrastructures for incubation and growth of FinTech. India Stack, which comprises JAM (Jan Dhan, Aadhar & Mobile) Trinity combined with E-sign & digital locker, is major boost for FinTechs to build their business. This combined with Payment Stack (including recent initiatives) viz. Immediate Payment Service (IMPS), National Automated Clearing House (NACH), India Quick Response (QR), Unified Payment Interface (UPI), Aadhar Enabled Payment System (AEPS), Bharat Bill Pay (BBPS) & USSD creates one of the largest interoperable payment ecosystems in the world.

As India leap frogs towards adoption of data and device, i.e. smart phone, which crossed 325 million mark, it will be fair to say that India is mobile first country, if not mobile only. Demographic dividend, social media adoption and mass urbanisation have created large segment of 'digital native' which will continue to support growth of new business models.

As Government continues the push towards cashless economy with measures like government payment and taxes moving online, incentives for digital transaction etc., we are likely to see growth in consumer adoption of digital mediums. This along with growth in e-commerce transaction has resulted in changing consumer habits. Governments and start-up incubators are also promoting FinTech through financial & infra support means.

FinTech

FinTechs have various opportunities, and can choose the space they want to get into. It can be B2B, where one is partnering/offering services to institutional clients like payment processing, analytics, transaction authentication and security solution, or customer facing like lending, wallets, investments etc. Depending on space, business model and underlying technology, FinTechs can sharpen their play.

Today, richness of data across credit, social media, merchant transaction, spends and financial aggregator is making us data rich country, and companies focussed on data science and analytics can leverage this across business models. Such data can be initial capital to build business models in areas like lending, insurance, payments and investment solutions. As motor vehicle, health, land and property records get digitised, we will witness more new innovative solutions from FinTech.

Technology is playing another pivotal role in the growth of FinTech as cost of starting a business has dropped dramatically with cloud based storage, plug n play offices and access to technology at low cost. Areas around identity & fraud management, artificial intelligence and natural language processing (NLP), advance analytics, blockchain, Internet of Things (IoT), augmented & virtual reality provides unimaginable range of products, solutions and experiences to consumers and the industry alike. The advent of customer centred design and experience will redefine experience for end user. With close to 90% of smartphone users on android, building a mobile first android experience is fast, cost effective & easy for many start-ups.

Access to capital and readiness of banks & financial institutions to work with FinTechs is helping them validate their business model and raise capital at a faster pace. This is also helping FinTech companies to go beyond Indian shores.

Banks & Financial Institutions (BFSI)

There has been a long debate about FinTechs vs. banks & how the growth of FinTech will impact BFSI. FinTechs with unique strength of focussed product, solution & segment depth have been good in solving identified problems. FinTechs are agile, have high adaptability & ability to pivot or persevere with solution and experience. At the same time, the FinTech industry lacks access to customers, trust, distribution footprint and regulatory oversight. This provides a perfect synergy for Banks & FI to work with FinTechs & vice-versa. Many banks including Kotak have set up an innovation lab, and is partnering with various FinTechs to jointly develop Proof of Concept (POC) & roll out products. As banks moves towards API banking, many banks are making their APIs available for integration to FinTechs. Banks are also working with FinTechs in areas like alternate and flow based lending, insurance, robo-advisory, customer experience solution and interactive solutions like chatbots.

This provides revenue opportunity and scale to FinTechs, and at the same time banks are able to roll out solutions at a faster pace. Various banks & FIs are also looking beyond partnership and are open to making strategic investments in such FinTech companies. This augurs well for the growth of both industries and brings complimentary value.

Consumer

As everyone fights for consumers' wallets and mind share, it is becoming pertinent that no one owns the consumer. Consumers are increasingly becoming demanding as they are presented with several choices. Be it aggregators offering range of financial products on a single platform or chatbots executing errand, there are several options in every category. Due to this, consumers have come to expect convenience, user experience and offers/ deals while interacting with digital interface on web, mobile or social media. It is, therefore, a great time to be a consumer. Consumer engagement on digital platforms also helps FinTech and other ecosystem players become data rich, which in undeniably the new currency. This data enables creation of new products that can be tailored for individual consumers.

Regulators

While regulators are supportive of innovation as long as customer privacy and risk is not compromised, majority of FinTechs operate in unregulated space. As they become customer facing, either in terms of products or transaction for e.g. Account aggregation, insurance, investment, lending, payments or deposits they will come under regulatory purview. Thus, it is important for FinTechs to understand regulatory landscape of India better. Some models that may work in other parts of the world cannot be blindly adopted here. Regular interaction, ideation and discussion with regulators can help build better understanding on both sides, thus reducing speed bumps.

Overall, it is a great time for FinTech players in India, provided the companies choose customer segments, problem that they are trying to solve, business model and unit economics well. It is important to note that technology can be a great leveller and is also easy to copy. Those who combine technology with consumer insights, ecosystem partnership and speed to market will succeed.

Disclaimer: The views expressed in the article are personal and do not reflect the views of Kotak Mahindra Bank Ltd.

Deepak Sharma, *Chief Digital Officer, Kotak Mahindra Bank Ltd.:* global first products like Jifi, Hashtag banking, Bharat Banking, M-Store & Kaypay. Deepak believes in constant innovation and focuses on building business models which are customer centric and disruptive.

Deepak has worked across various international markets and brings global perspective to his business. Prior to this, he was responsible for setting up the Bank's highly successful Non Resident Indian (NRI) & International Remittance business. Deepak also played a key role in launching the Bank's affluent banking programme - Privy League.

With over 22 years of experience, Deepak's professional tenure spans across the banking, telecom and service verticals. Prior to joining Kotak, he was part of the leadership team of Consumer Banking at Standard Chartered bank from 2003 to 2008. As National Head for Corporate Business, he was responsible for building the corporate payroll and Wealth Management business.

Deepak has completed an advanced programme in Strategy from IIM Calcutta & Lead Certified in Corporate Innovation from Stanford GSB. He is also part of various trade and business committees and writes on subjects related to business.

The Future of Personal Finance is Instant, Cashless, Paperless-and Presence-Less

The Evolving FinTech Landscape of India.

Adhil Shetty
Founder & CEO
Bank Bazaar

In June 2016, KPMG reported that the FinTech software and services industry is expected to become worth $45 billion in 2020, growing at approximately 7.1% annually. In India, as per the same report, the FinTech software market stood at $1.2 billion in 2016, and is expected to double by 2020.

Goldman Sachs reported earlier this year that with 440 million millennials and 390 million Gen Z-ers (those born after 2000), and with a per capita GDP of $1650 that compares with China in 2005, India is expected to fast-forward in terms of internet connectivity and e-commerce. Naturally, the growth of FinTech in India is expected to pair with the growth of internet users and e-commerce in India.

So what is FinTech? And how has it become so important? According to Investopedia, the internet-based financial encyclopaedia, "FinTech is a portmanteau of financial technology that describes an emerging financial services sector in the 21st century."

The meaning of the word has evolved. Around the turn of the century, the word was used to describe the technology powering consumer and institutional finance. More recently, the word has come to encompass "technological innovation in the financial sector, including innovations in financial literacy and education, retail banking, investment and even crypto-currencies like bitcoin," according to Investopedia.

FinTech in India has multiple ways forward. It can compete with established financial institutions. Or it can enable those very institutions, partnering them into creating an integrated, easily accessible, democratised financial system that could bring hundreds of millions of more Indians under the ambit of formal banking.

Infosys co-founder and former UIDAI chairman Nandan Nilekani described this phase as the Indian financial services sector's 'Whatsapp moment'. "Banking as we know it will stand on its head in the next 10 years," Nilekani recently said while talking of disruptions in the marketplace, comparing recent trends to how Whatsapp had disrupted instant messaging.

Where does a company like BankBazaar fit into this fast-evolving financial landscape? As a FinTech company that attracts 100 million users every year, BankBazaar is a technological and marketing platform. It connects banks and customers in a frictionless environment. It helps banks acquire more customers, while customers are helped in making informed decisions about their purchase by letting them compare products on various parameters such as price and features.

Technology has a large role to play in taking more Indians towards economic prosperity. Rather than be threatened by it, more customers and banks can prepare to embrace this shift from offline to online, from paper to paperless, from cash to cashless.

Democratising finance in India

Technology is now allowing financial services providers to increase financial inclusion in India. The cellphone has become a differentiator, as is having an Aadhaar number. The number of Indians having either a cellphone or an Aadhaar card is now one billion. Armed with one or both of these two enablers, India's unbanked can now hope to access the benefits of the formal financial system.

Let's take a recent development as example and understand the large-scale implications of FinTech.

To alleviate public suffering following the demonetisation, the Union Government and the RBI have taken several steps. One of the most important of these steps was taken on December 8 2016 when the RBI amended the master direction on the KYC process of regulated financial entities. The RBI now allows regulated entities to on-board new customers by authenticating them through OTP-based eKYC instead of the normal KYC process which requires papers, presence and considerable time.

By authenticating themselves through an OTP received on their cellphone, customers can open deposit and loan accounts paperlessly, presence-lessly, and instantly.

This being a pilot run for the RBI in terms of eKYC implementation, caps have been imposed on the current process. There's a cap of Rs. 60,000 per loan account per year, and an aggregate of Rs. 200,000 (and no more than Rs. 100,000 per deposit) per deposit account per year. The caps can be lifted as soon as the usual KYC processes have been completed within a 12 month period.

This may seem like a small step by the RBI. But it has the potential to bank India's several hundred million unbanked people. Former RBI governor Raghuram Rajan said India is home to 21% of the world's unbanked population, the largest share for any country. The ballpark figure for Indians practicing a form of regulated banking through banks, financial institutions and mobile payment systems comes to around 700 million out of a total population of 1230 million. With the number of Aadhaar and cellphone owners now standing at 1000 million, there's potentially a gap of 300 million people that needs bridging.

Beyond this set, there are potentially 230 million more Indians who will acquire an Aadhaar number or a cellphone in the future. All these people - perhaps approximately 530 million strong - can thus eventually hope to benefit from an OTP or Aadhaar-linked eKYC-based account opening processes. They can then come under the ambit of the formal financial system and have easy, instant, presence-less and paperless access to savings accounts, loan products, insurance products and investment options.

The financial inclusion of half a billion more people can then lead to a better standard of living, higher tax collection, and greater prosperity and development all round. Without technology and the reach of cellphones, creating this level of financial inclusion would have been much more difficult.

Paperless finance: A new wave

When we're trying to reach and sell to people on their cellphones, the financial products need to be instant and paperless. These products are the way forward. Let's understand this first through costs.

A paperless product can be processed and disbursed by an internet-linked technological engine that is capable of servicing potentially millions of customers at the same time. A customer can log in to this engine, input his product requirements, authenticate himself through a cellphone OTP, and buy a product instantly. This whole process would be over in minutes. In the offline world, the same process would require a visit to the lender along with a set of several documents. The application, approval and disbursal may take several days.

Because the technological platform is handling the application, it allows the financial service provider to reduce costs on human resources and paperwork. This reduction in costs can be as high as 20-30% in case of insurance products and 2-3% for banking products. In the long run, paperless products allow the financial services industry to cut costs and reduce non-performing assets. Since the products are paperless, there are also savings in terms of costs to the environment.

Customers stand to benefit from the reduced costs of these products. Considering that the service tax on insurance products has been trending upwards in the last decade, paperless products would allow them the possibility of buying the same products at significantly reduced prices.

Then, there's the matter of reach. Cellphone and internet connectivity may reach where the brick and mortar financial institutions will not. By buying financial products with their cellphones, customers may avoid the hardship and costs associated with having to travel to their nearest banks. Our belief in being online is vindicated each time we get applications from customers based in hard-to-reach places like Ladakh or Pithoragarh. This is yet another example of technology aiding and hastening financial inclusion.

Any time we discuss digitisation and paperless, we also need to consider threats to information security. FinTech entrepreneurs have a responsibility to constantly assess threats. We at BankBazaar hold ourselves to the highest standards in information security and are certified by TrustE, and regularly keep upgrading our certifications pertaining to info security.

Why eKYC and eSign are necessary

Instant and paperless products, as I argued above, can also lead to greater financial inclusion. There are two keys to achieving paperless. This is the large-scale adoption of eKYC and e-signature. As mentioned above, eKYC is now already a reality, with the RBI agreeing to adopt it in the opening of deposit and loan accounts. After the success of the pilot project, we can expect eKYC to be adopted at a larger scale.

This brings us to e-signatures. Currently, wet signatures are needed to complete the application process for all financial products. This is detrimental to the very idea of paperless and instant products. Going through the offline process of collecting a wet signature can take hours or days. This process needs to be gradually replaced by e-signatures which already have been accorded legal status. In 2008, the IT Act of 2000 was amended providing legal sanctity to e-signatures based on asymmetric cryptosystems. In addition, Sections 47A, 67A, 73A, and 85B were added to the Indian Evidence Act of 1872, thus making e-signatures valid and admissible evidence in the court of law and for all legal purposes.

Once the RBI decides to approve the use of e-signatures along with its current sanction to eKYC, paperless and instant products can become a reality.

Revolutionising finance in Asia

The FinTech learnings and successes in India can be exported to more Asian countries that continue to provide the largest chunks of the world's unbanked population.

As per another KPMG report, only 27% of Southeast Asia's population of 600 million is banked. That gives the FinTech industry the opportunity to work towards the financial inclusion of nearly half a billion people more, or 438 million to quote the report precisely.

Financial inclusion in SEA can be improved much the same way it is being done in India. Increasing the scope of basic, mobile-based transacting, using OTP-based authenticating, increasing the use of paperless and presence-less products, providing frictionless experiences and benefits to customers, and using the internet for increased reach and instant delivery of financial services - these are broadly the way forward for FinTech. ■

***Adhil Shetty**, Founder & CEO, Bank Bazaar*: Adhil Shetty serves as the CEO of BankBazaar.com. Also the co-founder of the company, he has set for himself an incisive vision – that of making BankBazaar.com the go-to brand for investors and loan aspirants – which is shifting the contours of how loans, cards and insurance products are consumed in India today.

BankBazaar.com was born in 2008 as the result of a frustrating personal search for a loan. Adhil, along with other co-founders, conceptualized India's first and leading world-class digital marketplace that provides a platform where users not only could search and compare personal finance products but also purchase it on the platform – be it credit cards, secured or unsecured loans, insurance, or savings and investments – from all the leading financial institution in India. The core idea has been to digitize the process as much as possible so that it delivers financial products to users instantly in a customized, presence-less, paperless manner. Today, this vision is becoming the face of Fintech in India, and consuming financial products is becoming as easy as shopping for any other consumer durable.

An engineering graduate from Anna University and holder of a Master's degree in International Relations from Columbia University, Adhil held decisive positions at Deloitte Touche Tomahatsu's US East Alliance and Cisco Systems before he dived headlong into scripting the BankBazaar story.

Leveraging FinTech opportunities in India

Bipin Preet Singh
Founder CEO & Director
Mobikwik

We live in uncertain yet exciting times. It is no less than a challenge - more so a necessity - for corporations worldwide to manage internal and external risks, and stand resilient to evolving economic and political circumstances.

India - the world's fastest growing major economy - is meanwhile shining under a spotlight with young entrepreneurs, innovators and visionaries reshaping how business is done. While disruptions and unexpected events are a fact of life, the country continues to show signs of gaining a steady momentum and transitioning to a global digital economy.

With favourable demographics and supportive government policies, India's 2.3 trillion dollar economy is witnessing a phase characterised by innovation-led entrepreneurship. Young people are deploying new digital tools and communication technologies to disrupt the old order.

The 1.3 billion people, economy growing at 7.4 per cent annually, English-speaking workforce, robust information technology sector and booming IT-related services are attracting investments in billions of dollars, undaunted by challenges like still immature start-up environment and labyrinth-like laws and regulations.

Growth drivers

Innovation and technology are bringing radical changes in traditional financial services. A new generation of start-ups is utilising tech tools and forging disruptive business models to bring in seamless and innovative financial services for the banked and unbanked population - from payments to wealth management to peer-to-peer lending to crowd funding.

FinTech is generally defined as technology-based businesses that compete against, enable and / or collaborate with financial institutions. These start-up firms engage in external partnerships with financial institutions, universities and research institutions, technology experts, government agencies, industry consultants and associations. Through these partnerships, they create a highly integrated ecosystem that brings together their expertise, experience, technology and facilities.

A successful FinTech ecosystem is where all market participants connect, engage and share ideas across vibrant communities and networks. It also identifies and converts opportunities into business. In the current age of technology-driven financial services, no market participant can afford to operate in silos.

Booming businesses

India is transitioning into a dynamic ecosystem offering FinTech start-ups a platform to potentially grow into billion-dollar unicorns. From tapping new segments to exploring foreign markets, FinTech start-ups are pursuing multiple aspirations. The traditionally cash-driven economy has responded well to the FinTech opportunity, primarily triggered by a surge in e-commerce and smart phone penetration.

The transaction value for the Indian FinTech sector is estimated to be 33 billion dollars and forecast to reach 73 billion dollars by 2020, growing at a CAGR of 22 per cent - over three times the GDP growth rate. The wave continues due to a strong talent pipeline of cost-effective tech workforce.

From e-wallets to lending to insurance, the services of FinTech have redefined the way businesses and consumers carry out routine transactions. Channels like e-commerce and m-commerce are opening up new ways for consumers to make purchases - like tapping their mobile phone, or reading a quick response code, or a wearable watch onto a contactless payment terminal. Adoption of these new innovations can help create new revenue channels and reduce overheads, positively impacting financial bottom lines of companies.

Going cashless

In the world's most sweeping currency policy change in decades, Prime Minister Narendra Modi announced on November 8, 2016 that all Rs 500 and 1,000 notes will be taken out of circulation. Aimed at eliminating widespread corruption and widening the tax base, the move had sent hundreds of thousands of people queuing up at banks across the country to deposit idle cash or replace them with new notes.

Since the move invalidated 86 per cent of the total currency in circulation, an unprecedented cash crunch ensued, prompting more and more Indians to seek succour in e-wallets. This proves that the market is huge and mostly untapped. With cash constituting about 98 per cent of all consumer transactions by volume and about 68 per cent by value, 12 per cent of the economy depends solely on cash, according to consulting major PwC. Cashless transactions, on the contrary, constitute a mere two per cent of the GDP.

A report by McKinsey Global Institute titled 'Digital Finance for All: Powering Inclusive Growth in Emerging Economies' says Indians lose more than two billion dollar a year in forgone income simply because of the time it takes travelling to and from a bank. Can digital payments address this? The scope is huge. The report says digital payments services in India can add 700 billion dollars to GDP by 2025 and create 21 million new jobs.

Key enablers

The government along with regulators such as the Securities and Exchange Board of India (SEBI) and the Reserve Bank of India (RBI) are aggressively supporting the ambition of becoming a cashless digital economy with a strong FinTech ecosystem via both funding and promotional initiatives.

The Jan Dhan Yojana added over 200 million unbanked individuals into the banking sector. The Aadhaar card programme started as a 12-digit individual identification number enabling online and cost-effective identification for every resident Indian. It has already been extended for pension, provident fund and the Jan Dhan Yojana. Innovations leveraging the Aadhaar card are expected to assist the financially excluded segments and remove financial untouchability.

The opportunity for FinTech is enormous in the areas of government-to-person cash transfers too. The Direct Benefit Transfer (DBT) scheme will enable deeper penetration of financial services and help in achieving financial inclusion goals. On the other hand, Digital India and Smart Cities initiatives have been launched to promote digital infrastructure development in the country as well as attract foreign investments.

Among the notable initiatives on tax and surcharge relief are: tax rebates for merchants accepting more than 50 per cent of their transactions digitally, 80 per cent rebates on patent costs for start-ups, income tax exemption for start-ups for first three years, and exemption on capital gains tax for investments in unlisted companies for longer than two years.

The RBI has been trying to create an environment for unhindered innovations by FinTech companies, expanding the reach of banking services for unbanked population, regulating an efficient electronic payment system and providing alternative options to consumers. FinTech enablement has been primarily across payments, lending, security / biometrics and wealth management.

Investors' role

FinTech investment increased manifold from 247 million dollars in 2014 to more than 1.5 billion dollars in 2015. India has a far lesser number of angel investors (about 1,800 in 2016) as compared to 300,000 in the United States. However, India is witnessing increasing interest levels in start-up funding, which is evident by increasing number of angel deals from 370 in 2014 to 691 in 2015.

Bengaluru has the highest number of start-ups and accelerators in the country, while Delhi NCR region is home to big-ticket players. Investors are coming to terms that FinTech is more than just payments technology and the interest is beginning to manifest itself in a variety of sub-segments such as investing, lending, wealth management, credit reporting among others.

The BFSI sector is gearing for both acquisitions and funding-based routes to increase its presence in the emerging FinTech space. For example Citi Bank, Barclays and Goldman Sachs have launched

FinTech focused accelerator programmes. Partnerships by FinTech product firms (in point-of-sale hardware, credit deals and social lending) with banks with a synchronised go-to-market strategy are addressing the immediate demand of digital-age consumers.

To counter a steady challenge by venture backed FinTech firms, many incumbents are augmenting their value chain with competing offerings and leveraging their own distribution and client base. Setting up, managing or investing in centres of excellence and FinTech hubs is an excellent strategy to take an inside view of the emerging FinTech firms' working, and to nurture talent for a future competitive advantage.

Block-chain technology

Built on the block-chain infrastructure, virtual currency is enabling better speed and efficiency of transaction. With more than 90 per cent share globally, Bitcoin is the leading virtual currency in a seven billion dollar market. Block-chain is being perceived in India as a game changer. If used to its full potential, it can offer an innocuous, quick and economical way for transactions, simplify international remittances and reduce transaction times by more than half.

Though it is at a very nascent stage and is yet to mature into a mainstream application, the technology is receiving encouraging reviews from market players in the country. The RBI has set up a committee to understand the possibility of using block-chain technology and to determine suitable regulatory policies.

There have been initial concerns over the emergence of virtual currency schemes. But the government recognises the need for regulators and authorities to keep pace with developments. Crypto-currencies have garnered worldwide attention with the World Economic Forum, the Pentagon, Central Banks and the Government of Dubai announcing massive projects to rewrite the history of money.

Many of the world's largest banks are said to be supporting a joint effort for setting up of private block-chain and building an industry-wide platform for standardising the use of this technology. This could transform functioning in back offices of banks, increase the speed and cost efficiency in payment systems and trade finance.

New normals

In India, financial inclusion is projected to be driven largely by creation of an ecosystem where people get the opportunities to use financial instruments in their daily lives and banks make best use of the spread of FinTech and non-financial firms operating in these inaccessible areas. At present, the financial inclusion penetration is low where 145 million households do not have access to banking services.

Rapidly growing penetration of smart phones and internet has led to the emergence of multiple technologies for replacing cash, providing credit information for screening, enabling online lending and purchasing of financial products through digital means. Going forward, the recent provision of payment bank licenses by the RBI is likely to aid in monetising this digital trend and making technology as the core offering.

The RBI has also given licenses to 10 entities for setting up small finance banks. Through this initiative, the central bank aims to extend credit facilities to micro and unorganised sectors. It has also come up with a report on medium-term path for financial inclusion which aims to achieve 90 per cent coverage by 2021.

While the FinTech sector offers innovation and disruptive technologies, banks can drive customer demand. It is thus for banks to leverage these concepts and disruptive ideas and adopt them into their mode. Banks will likely consume and integrate FinTech ideas into their normal course of business in coming times. ■

Bipin Preet Singh, *Founder CEO & Director, Mobikwik*: Bipin founded MobiKwik with the vision of making mobile payments easier for the average Indian. He has worn several hats at MobiKwik, from engineering to leading the business development, marketing, and advertising teams. Bipin's current focus is on taking the wallet to a billion Indians by driving product innovation and brand marketing.

Prior to his entrepreneurial journey, Bipin spent 7 years as a Platform Architect at companies such as Intel, Nvidia, and Freescale. He also dabbled in advertising as a Partner with Star Auto and in civic advocacy with Janaagraha, a non-profit organization based in Bengaluru.

Bipin did his B.Tech in Electrical Engineering from IIT-Delhi. At the age of 29, when faced with a choice to spend his savings on an expensive B-school degree from a top university in the US or use the money to startup, Bipin chose the latter. It was a decision that saw him making a difficult shift from hardware to software, learn programming from scratch and bootstrap his way to success. Given his success as a seasoned entrepreneur Fortune featured him under the prestigious "40 under 40" list for 2016.

FinTech-Making India a New Techno Banking Empire

Manavjeet Singh
Founder and CEO
Rubique

India is transitioning into a vibrant ecosystem offering FinTech start-ups a platform to potentially grow into billion dollar unicorns. Although relatively young at present, the FinTech sector is escalating rapidly, fueled by the large innovation-driven start-up landscape, and responsive government policies and regulations. As per NASSCOM, the industry is forecasted to touch USD 2.4 billion by 2020 from the current USD 1.2 billion. The year 2016 witnessed major technology changes in the country's financial services industry. The traditionally cash-driven Indian economy has responded well to the FinTech opportunity, primarily generated by an upwelling in e-commerce, and smartphone penetration. It is becoming more open to preference for convenience with cashless transactions fast gaining momentum on one hand and promising categories like lending, Personal Finance Management (PFM), Insurance, investment platforms, banking technology, security, loyalty management, e-tax filing and Saas-based subscription billing, etc. all set to transform the way of life for both urban and rural consumers.

The absence of a broad-based financial transaction infrastructure has been a major bottleneck in India and is largely responsible for the lack of penetration. For instance, the application for a loan in India once required several physical documents - identification proof, salary slips and attested copies of all documents, signatures, in-person verification, physical inspections of property, and half a dozen other items that almost stock up a fat binder. Similarly, without meaningful financial data, the risk of lending to hundreds of millions of undocumented and unverifiable Indians became high even if the income sufficiency tests were met by some. The digital storm has finally created an inflection point where technology, invention, and favorable government policy are helping overcome barriers that have stood as a growth hurdle for decades in this area.

The new age fin-tech lending marketplaces foresee revolutionizing the country's financial lending business by changing the way it works, through giving loans without collateral or by connecting the consumers or small business owners to financial institutions on a combined platform for quick sanction of loans. Such neutral platforms offering a wide range of loan products and end-to-end loan fulfillment allows individuals to focus on building their businesses instead of worrying about getting the funding to fulfill the gap in their cash flows or fund their expansion and growth plans.

Technology today is transforming the financial services industry bringing it at the forefront of providing efficiencies, but digital presents a whole new prototype. By evaluating, implementing, and combining the right digital uses for their needs, emerging FinTech startups are accelerating the speed of change in the way customers access financial products and services. They are also remodeling the financial services industry drastically by creating disruption through innovative and dynamic use of technology in the lending process. For instance, while traditional banks in India use technology to simply calculate credit scores, FinTech ventures use machine learning algorithms and alternate data points like social media trails, call records, shopping histories, and payments to utility service providers to increase efficiency and provide greater access to credit. The turnaround time for the approval and disbursal of loans by FinTech firms is also swift as compared to several banks who are digitizing and speeding up their processes markedly.

Digital access to loans has massively impacted the MSME sector that has been playing a vital role in the Indian economy for the past five decades. Being the incubators of entrepreneurship development, innovation, and risk-taking behavior, MSMEs have been instrumental in the country's industrial output, exports and in creation of employment opportunities for millions of people in the country. But when it comes to raising adequate finances, they are left under-served by banks and financial lenders which would rather reach out for the top of the pyramid.

Hunting for credit has always been the biggest challenge for millions of small businesses in a country like India which has more than 50 million MSMEs operating at present. They run from pillar to post to get finance for working capital or any other financing requirements. Many MSME units have struggled to remain afloat due to their inability to access finance for their survival and growth. The huge lending gap can be attributed to the information irregularity which exists in the sector relating to the funding options and choices to these units.

Considering this pain point, FinTech platforms offers unique technology solutions with match-making algorithm and direct integration with financial institutions' lending systems. With such integrated technology solution, the focus is on disbursement rather than mere lead generation allowing the customer to get the best deal in the quickest possible time while lowering the cost of customer acquisition for the financial institution.

The emergence of P2P lending where lenders are connected to the borrowers directly through online applications and websites is also enabling a social impact and providing easier access to credit to small and medium entrepreneurs. Their lower rates of interest compared with other money lenders and with the unorganized sector make them user-friendly and approachable for SME borrowers.

Today, India's financial services sector is at an inflection point with the digital and technological revolution transforming its business operations. With the maturity of the ecosystem, Fintech start-ups will lead the way to India's financial inclusion. This means consumers will be able to access financial services such as digital remittance, credit, insurance etc. even without accounts in commercial banks. With almost a billion mobile subscriptions and a billion Aadhar IDs creation, financial services through mobile phones are being foreseen to dominate all other channels. The success factors for Fintech players in India will be the usability, affordability, reliability, and ubiquity of their services. To ultimately benefit consumers at the grassroots level, presence of financial literacy, awareness and trust factor are necessary to mobilize rural and semi-urban consumers in transitioning into digital channels. The confluence of finance, technology, and innovation are not only making the possibilities endless but also making the journey to a formal financial system for millions of Indians easier than ever imagined. ■

Manavjeet Singh, *Founder and CEO, Rubique*: First generation entrepreneur Mr. Manavjeet Singh is the Founder & CEO of Rubique (earlier known as bestdealdinance), one of the largest financial portals offering a comprehensive range of financial products and services from multiple Banks and Financial Institutions, through a cutting-edge technology platform. A veteran banker with more than 23 years of rich experience in the field of banking & financial services, he is a well-recognized name in the industry.

Manavjeet started his professional career with Xerox followed by several strategic leadership positions in prestigious corporate organizations like Citibank India, SBI Mutual Fund, HDFC Bank, Reliance Consumer Finance, Reliance Broadcast Network Ltd and YES Bank. In his career, he has handled various types of products ranging from retail & MSME loans, mutual funds, microfinance, to unsecured business lending. Manavjeet has also played an instrumental role in setting up businesses before launching his first entrepreneurial venture, bestdealfinance.com (now Rubique) along with his partner Mr. Sandeep Nambiar on October 2014. He conceptualized the online financial platform with a vision to bring transparency and to make finance simple & accessible through technology and create disruption in the online lending domain.

A professional with a distinguished reputation of being the driving force, Manavjeet has a proven strategic track record in operational efficiencies, business development, sales productivity, managing large teams & financial management. With his expertise, he has taken the company from being just a competitor to web aggregators getting instant approval to going beyond web aggregation and emerging as one of the very few players in the FinTech disrupting lending space, in just one year of its existence.

Change is the New Normal

Ajay Srinivasan
Chief Executive - Financial Services
Aditya Birla Group

As 2016 came to an end, I can't but reflect on how much disruption the year had witnessed. Interestingly enough, the most common words in business today too resonate the same sentiment of disruption, innovation and transformation. Given the sheer amount of conversations on disruption and innovation, I think it's fair to say this is an issue that seems to be a discussion point in every business today.

The concept of disruptive innovation was defined by a Harvard professor, Clayton Christensen, in the late 1990s, when he talked about a principle wherein entrenched, dominant product or service providers could be unseated in the market by smaller rivals, who offered solutions more simply or at a much lower cost. While a lot of the hype on disruption is probably exaggerated, the truth is that it has already changed a few sectors while many others face challenges that may be waiting in the wings today, but could move from the fringes to take centre-stage tomorrow.

Let us consider the disruption that is happening in the financial services industry. Over the past decade, FinTech has been growing with a focus on customer-centric innovation. While 2015 saw FinTech companies transforming customer experiences by focusing on convenience, efficiency and user interface, 2016 has brought about an increased collaboration between traditional financial institutions and FinTech start-ups. FinTech companies are benefiting from scale by integrating with banks and building models that combine their innovative strengths with larger institutions, instead of competing.

As Bill Gates once said, "Banking is necessary, banks are not." FinTech start-ups utilise this mindset to think of better solutions to customer problems or needs. We have seen FinTech companies increase their focus to meet the needs of millennials, look at increased traction and in online advice and discretionary wealth management tools, focus on Big Data and analytics, explore alternative finance options like peer-to-peer (P2P) lending and of course continue to focus on payments and remittances.

According to industry reports, the Indian FinTech market is forecasted to touch $2.4 Bn by 2020, a two-fold increase from the market size today. Lending and payments, in particular are expected to pave the path for this unprecedented growth. The increase in smartphone adoption, growth of rural telephony penetration, the larger play of Indian digitization and the recent demonetisation will be other factors driving the growth in this vibrant sector.

India as such, provides a huge untapped opportunity for the growth of FinTech. The use of mobile internet is growing sharply. According to BCG, the number of users accessing internet services on mobile is expected to reach 3 billion by 2020, covering 65% of the world's adult population as compared to approximately 1.9 billion in 2015. It predicts that about 80% of all internet users will be accessing the Internet through mobile handsets and 58% of such users will be using smartphones. Given that smartphone devices are equipped with powerful processors, substantial memory, high-resolution cameras. barcode scanning, GPS geocoding, and NFC-based technologies, they now are potent commerce-enablers.

The evolution of smartphones is enabling new payment capabilities. This has transformed digital payments. Coupled with innovations in payment access and security technologies for reducing fraud, multi-factor authentication etc., the growth for FinTech in India cannot be emphasized enough.

Perhaps the most exciting area of FinTech innovation is the use of data. Big data and advanced analytics offer transformative potential to predict "next best actions," understand customer needs, and utilize a host of data to determine profiles and clusters. IDC estimated that the digital universe is doubling its size yearly and would reach 44 ZB in 2020 from 4.4 ZB of data generated in 2013. It also forecasted that the big data technology and services market will grow at 26.4% compound annual growth rate to $41.5 billion through 2018, or about six times the growth rate of the overall information technology market.

The disruption of FinTech, however is not limited to a spectacular range of start-ups prevalent in this space. Traditional financial institutions have also taken cognizance of the impact that this disruptive revolution could have to its existent service offerings. We have increasingly heard of banks investing in FinTech within strategic areas of operations.

At Aditya Birla Financial Services, we have witnessed the power of incorporating financial technologies into traditional services first-hand. For instance we have just launched Active Account - an app which quite simply helps make your money work harder than it does in a typical bank account.

On the lending side, we have launched a complete end-to-end digital lending proposition wherein we have back-end algorithms to analyse lending proposals. The whole process is completed within a fraction of the time it would usually take anyone to do this manually.

This brings me to our Payments Bank. This is an initiative that we propose to roll out in the first half of 2017. Through the Payments Bank initiative, we will leverage the unique reach of our telecom company Idea to provide a wide range of products and services.

The adoption of mobile wallets, cashless transactions and online payment gateways has paved the way for FinTech disruption. For those who can move fast to emerge with a customer centric engagement strategy, the potential to develop a winning model is enormous. For the rest, 2017 will be about collaborations with the right partners to provide enriched customer experiences.

In any case, watch this space, as the action is heating up! ■

Ajay Srinivasan, *Chief Executive - Financial Services, Aditya Birla Group*: Ajay Srinivasan has been the Chief Executive of the Financial Services business at the Aditya Birla Group since July 2007.

In his role as Chief Executive, Financial Services, he sets the strategic direction and leadership for the Group's Financial Services business which covers several verticals such as life insurance, fund management, private equity, wealth management, retail broking, capital markets based lending, corporate financing, infrastructure finance, housing finance, general insurance broking, health insurance, pension fund management and online personal finance management.

Under his leadership, the financial services business has diversified into a large conglomerate with 13 new verticals. Aditya Birla Financial Services Group (ABFSG) ranks among the top 5 fund managers in India (excluding LIC) with an AUM of INR 217, 840 Crore as on 30th September 2016 and has a lending book of Rs 31, 823 Crore. The business has been one of the fastest growing non-banks in the country. With a proven track record for building successful businesses, his experience in the financial services industry spans over two and a half decades.

Ajay has been engaged with several bodies including the Financial Planning Standards Board, the FICCI Committee on Insurance and as a member of the Advisory Board of the City of London. He is also actively engaged with some non profit organisations including Pride India and the Ashoka Fellowships.

Ajay is an Alumnus from St Stephens College, University of Delhi and the Indian Institute of Management, Ahmedabad.

FICCI – Data Centre

Equity Capital Markets

- **Indian ECM** volume stood at $10.1bn (via 150 deals) for 2016, down 47% on the $19.2bn (via 132 deals) raised in 2015
- IPO volume increased considerably to $4.1bn (via 90 deals) for 2016, compared to $2.1bn (via 60 deals) for 2015. There were two convertibles issued ($310m) for 2016 compared to none for 2015
- **Follow-on** volume for 2016 decreased 67% to $5.6bn (via 58 deals) from the $17.0bn (via 72 deals) for 2015
- **ICICI Prudential Life Insurance Ltd.'s** $903m IPO via book runners **BAML, ICICI, DB, HSBC, CITIC, IIFL Holdings, JM Financial, SBI and UBS** is the largest ECM transaction for 2016

In association with

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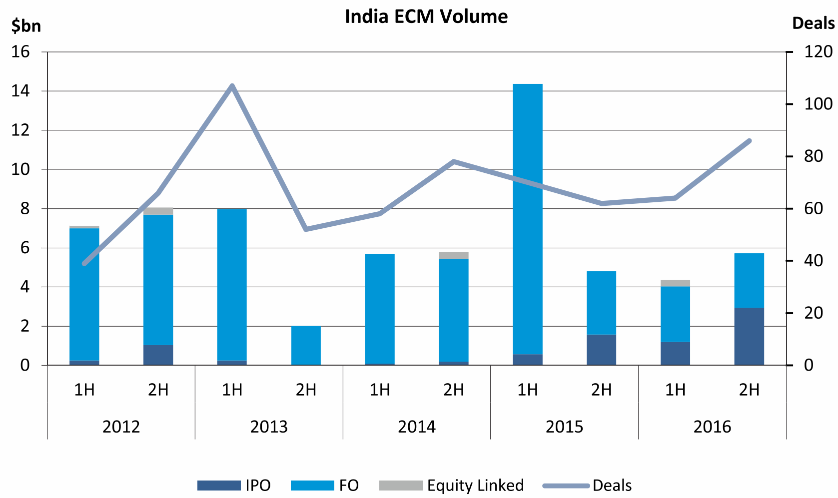
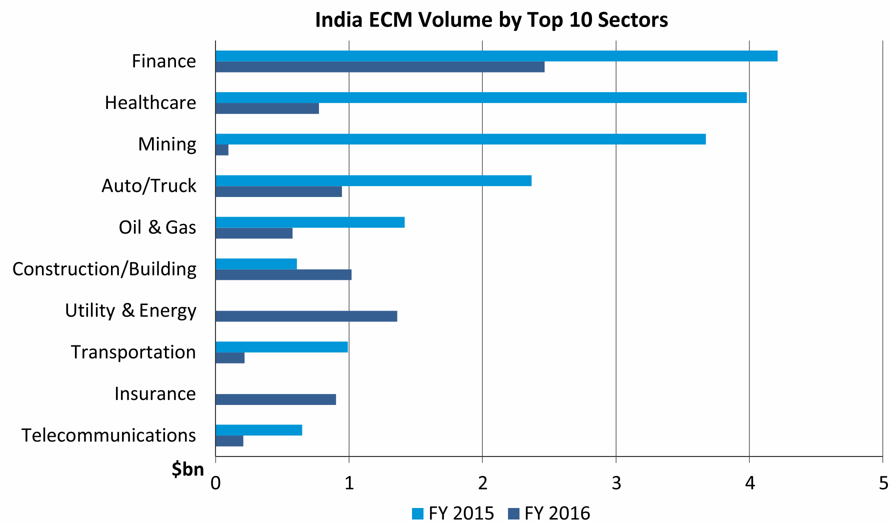




Top 10 ECM Deals-FY 2016					
Date	Issuer	Sector	Deal Type	Deal Value ($m)	Bookrunners
22-Sep	ICICI Prudential Life	Insurance	IPO	903	BAML, ICICI, DB, HSBC, CITIC, IIFL, JM Financial, SBI, UBS
24-Feb	NTPC Ltd	Utility & Energy	FO	734	SBI, ICICI, EDEL, DB
29-Sep	Kotak Mahindra Bank	Finance	FO	549	Kotak, CITI, DB, JPM
2-Nov	PNB Housing Finance	Finance	IPO	450	Kotak, BAML, JM Financial, JPM, MS
28-Apr	NHPC Ltd	Utility & Energy	FO	411	EDEL, HSBC, IDFC
21-Oct	National Buildings Construction Co-NBCC	Construction/Building	FO	333	AXIS, CITI, NOM
11-Apr	Equitas Holdings Ltd	Finance	IPO	327	AXIS, EDEL, HSBC,
3-Nov	Larsen & Toubro Ltd	Construction/Building	FO	315	ICICI, CITI, MS
13-May	Eicher Motors Ltd	Auto/Truck	FO	314	CITI
19-May	Castrol India Ltd	Oil & Gas	FO	311	CITI, ICICI

Asia Pacific ECM Volume by Nation FY 2016				
Pos.	Nationality	Deal Value ($m)	No.	% Share
1	China	214,886	908	68.8
2	Japan	26,378	190	8.4
3	Australia	20,656	792	6.6
4	South Korea	14,145	180	4.5
5	India	10,073	150	3.2
6	Hong Kong	6,959	270	2.2
7	Singapore	4,265	52	1.4
8	Malaysia	3,484	76	1.1
9	Indonesia	2,697	31	0.9
10	Taiwan	2,597	123	0.8

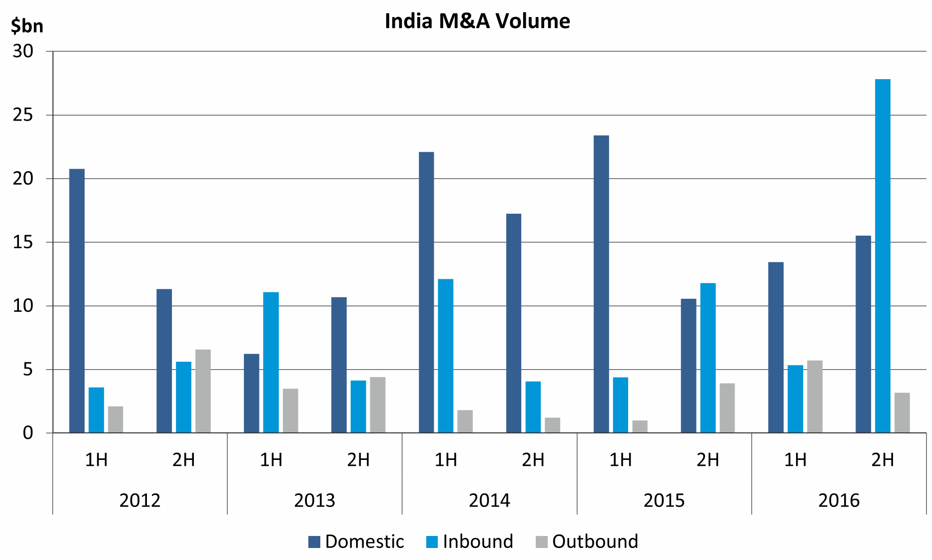
India ECM Volume FY 2016				
Pos.	Bookrunner Parent	Deal Value ($m)	No.	% Share
1	Citi	1,767	15	17.5
2	ICICI Bank	1,222	21	12.1
3	Kotak Mahindra Bank Ltd	701	13	7.0
4	Edelweiss Financial Services Ltd	635	10	6.3
5	Morgan Stanley	523	5	5.2
6	State Bank of India	519	12	5.2
7	Deutsche Bank	460	5	4.6
8	Axis Bank	453	9	4.5
9	JPMorgan	451	4	4.5
10	JM Financial Ltd	404	8	4.0

India IPO Volume FY 2016				
Pos.	Bookrunner Parent	Deal Value ($m)	No.	% Share
1	ICICI Bank	467	12	11.3
2	Kotak Mahindra Bank Ltd	450	10	10.9
3	Axis Bank	342	8	8.3
4	JM Financial Ltd	308	6	7.4
5	Citi	295	5	7.1
6	State Bank of India	277	7	6.7
7	IIFL Holdings Ltd	238	7	5.7
8	Bank of America Merrill Lynch	224	3	5.4
9	HSBC	182	2	4.4
10	Edelweiss Financial Services Ltd	160	4	3.9

India FO and Conv. Volume FY 2016				
Pos.	Bookrunner Parent	Deal Value ($m)	No.	% Share
1	Citi	1,472	10	24.8
2	ICICI Bank	755	9	12.7
3	Edelweiss Financial Services Ltd	476	6	8.0
4	Morgan Stanley	413	3	7.0
5	Deutsche Bank	359	4	6.1
6	JP Morgan	337	2	5.7
7	Kotak Mahindra Bank Ltd	251	3	4.2
8	State Bank of India	242	5	4.1
9	UBS	199	3	3.4
10	Credit Suisse	194	2	3.3

Mergers & Acquisitions

- **India** ranked as the fourth targeted nation in **Asia Pacific region** for 2016 with $62.3bn, up 24% on the $50.4bn announced for 2015
- India **Outbound M&A** volume increased 81% to $8.9bn for 2016 compared to $4.9bn for 2015
- India **Inbound M&A** volume increased considerably to $33.2bn for 2016 from the $16.2bn for 2015
- **Domestic M&A** volume dropped 15% to $29.0bn for 2016, compared to $34.0bn for 2015
- **Rosneftegaz OAO**, the Russian state-owned oil and gas company, and a consortium led by **Trafigura Beheer BV** and **United Capital Partners Advisory OOO's** acquisition of **Essar Oil and Vadinar Oil Terminal Ltd - VOTL** from **Essar Group** for $12.9bn, is the largest announced Indian M&A transaction for 2016

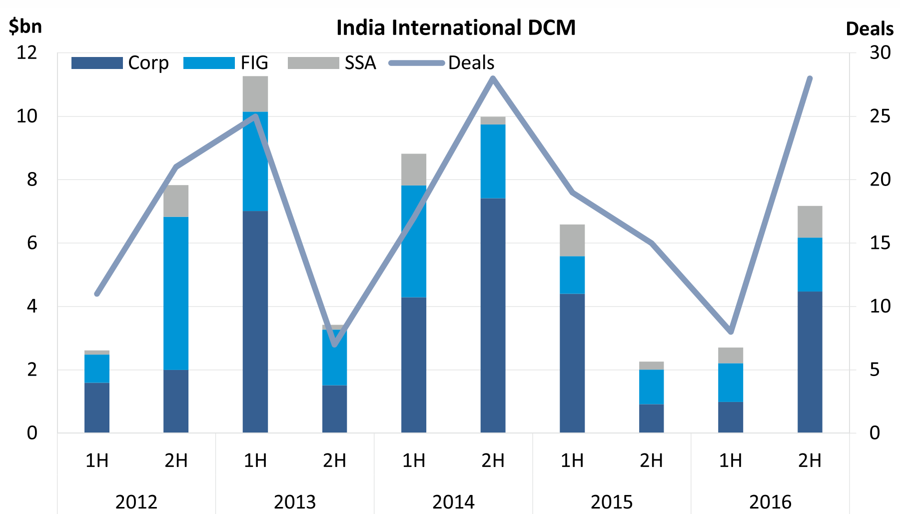


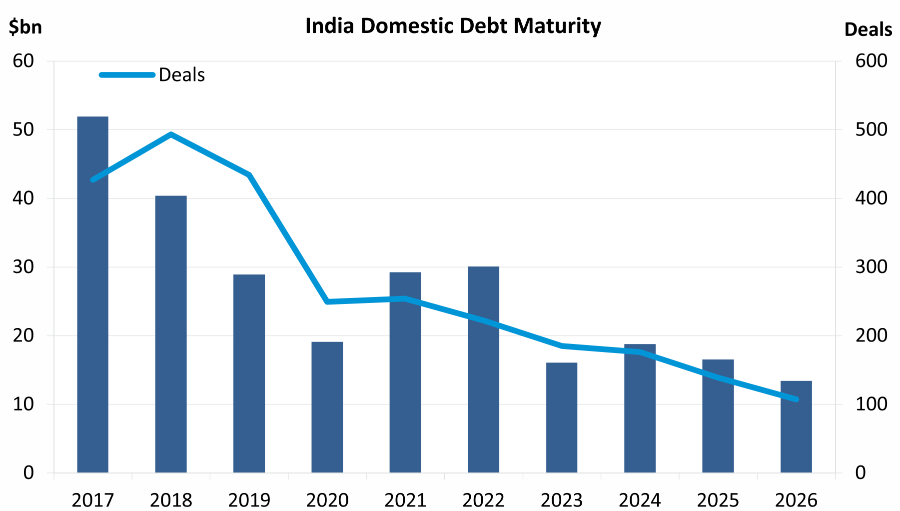
India Announced M&A Advisory Ranking FY 2016				
Pos.	*Advisor*	*Value $m*	*# Deals*	*% Share*
1	*Citi*	*7,207*	*11*	*14.4*
2	*JM Financial Ltd*	*5,077*	*4*	*10.1*
3	*Rothschild & Co*	*5,011*	*5*	*10.0*
4	*Kotak Mahindra Bank Ltd*	*3,916*	*15*	*7.8*
5	*Axis Bank*	*3,857*	*12*	*7.7*
6	*Credit Suisse*	*3,701*	*6*	*7.4*
7	*Morgan Stanley*	*3,097*	*6*	*6.2*
8	*JP Morgan*	*3,045*	*7*	*6.1*
9	*Bank of America Merrill Lynch*	*2,959*	*4*	*5.9*
10	*PwC*	*2,844*	*14*	*5.7*

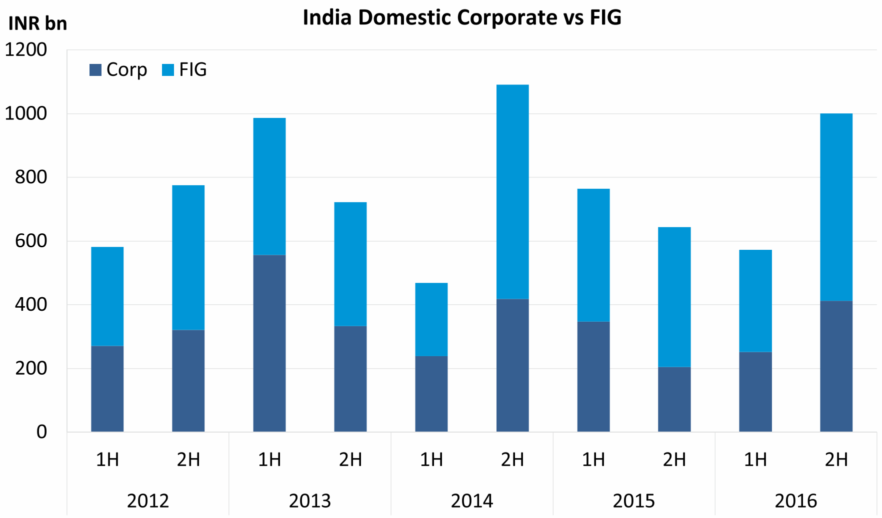
India Announced M&A Attorney Ranking FY 2016				
Pos.	Attorney	Value $m	# Deals	% Share
1	Cyril Amarchand Mangaldas	19,614	48	31.6
2	AZB & Partners	15,873	104	25.6
3	Freshfields	15,156	6	24.4
4	Khaitan & Co	11,693	48	18.8
5	J Sagar Associates	8,716	40	14.0
6	Shardul Amarchand Mangaldas & Co	7,035	35	11.3
7	Kirkland & Ellis LLP	6,422	2	10.3
8	Slaughter & May	5,896	2	9.5
9	Simpson Thacher & Bartlett	3,417	4	5.5
10	Herbert Smith Freehills	2,700	5	4.4

Debt Capital Markets

- **India DCM** issuance for 2016 reached $40.8bn (via 467 deals), up 3% on the $39.7bn (via 423 deals) raised in 2015
- **Corporate IG and Agency** bonds accounted for 67% and 17% of the total DCM volume with $27.5bn and $7.1bn, respectively for 2016
- **Export Import Bank of India** led the offshore issuer table for 2016 with a 15.2% share, while **HDFC Ltd.** topped the domestic issuer ranking with a 8.5% share
- India **Domestic DCM** volume reached INR2.07tr for 2016, up 5% on the INR1.97tr raised in 2015. Activity increased to 431 deals during 2016 from the 389 recorded for 2015
- **International** issuance for 2016 reached $9.9bn, up 12% on the 2015 volume of $8.9bn. Activity increased to 36 deals compared to 34 deals for 2015

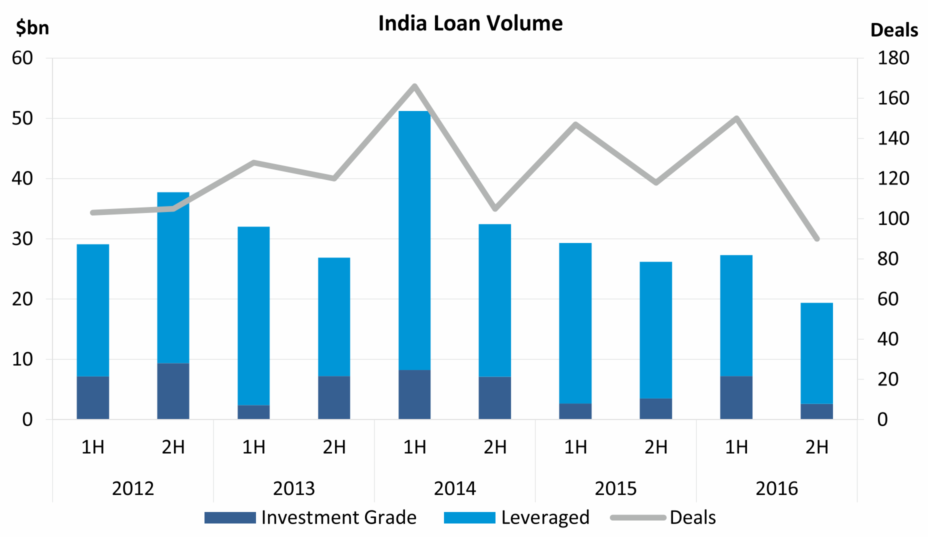


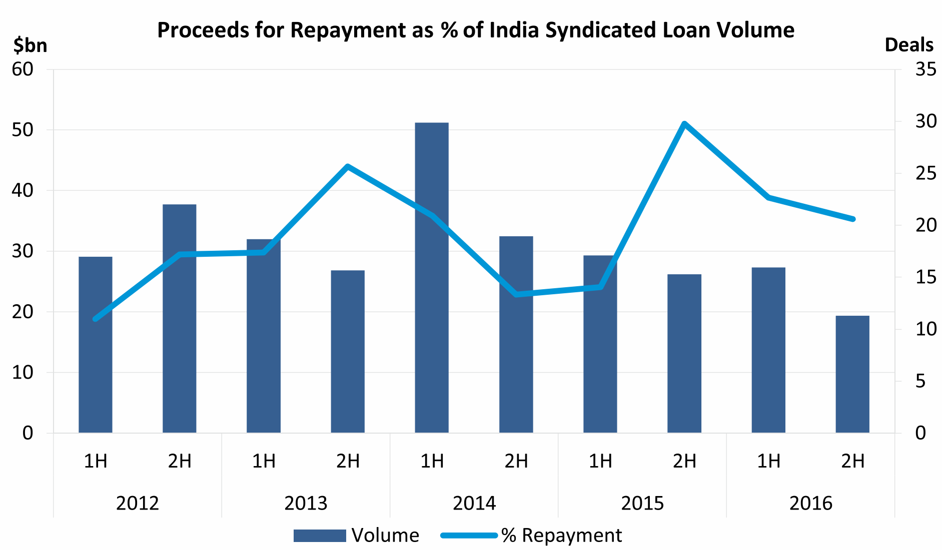


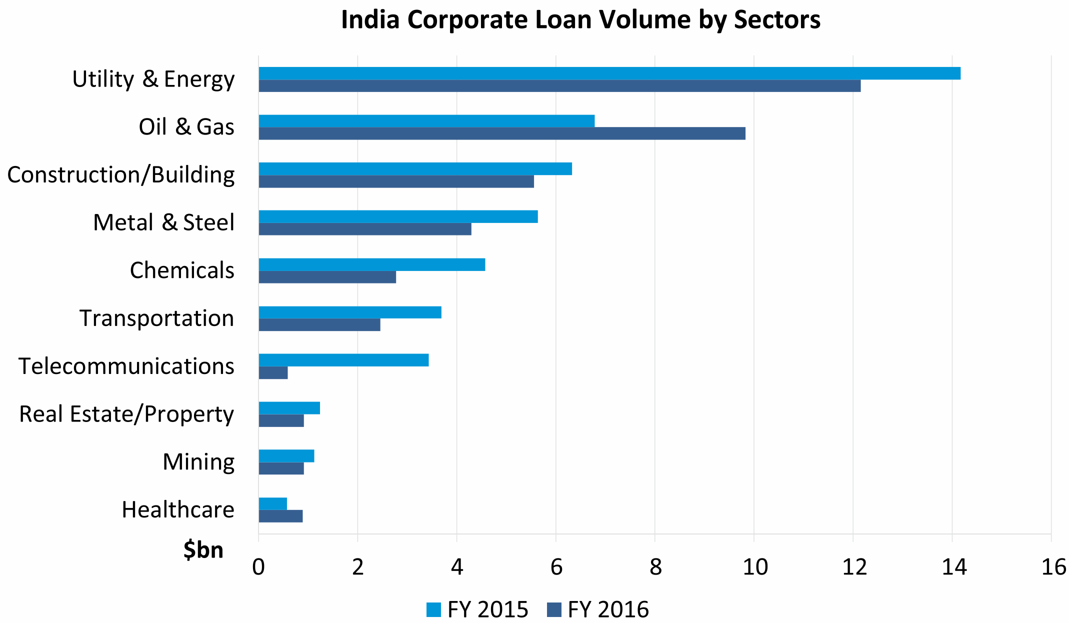

India Domestic Corporate vs FIG
INR bn
1200
1000
800
600
400
200
0
Corp
FIG
1H
2H
2012
2013
2014
2015
2016

Loan Markets

- **India loan** volume reached $46.7bn (via 240 deals) for 2016, down 16% on the $55.5bn (via 265 deals) for 2015
- **Leveraged** loan volume decreased 25% to $36.9bn via 220 deals, compared to $49.3bn (via 243 deals) for 2015
- **Investment grade** loan volume increased 59% to $9.8bn (via 20 deals) versus $6.2bn (via 22 deals) for 2015
- Among the corporate borrowers, **Utility & Energy** sector topped the industry ranking for 2016 ($12.2bn) with a 28.4% share
- **ONGC Ltd.'s** $1.8bn investment grade deal in March arranged by **Bank of Tokyo-Mitsubishi, Citi, Mizuho and Sumitomo Mitsui Banking Corp** is the largest loan transaction for 2016






India Corporate Loan Volume by Sectors
Utility & Energy
Oil & Gas
Construction/Building
Metal & Steel
Chemicals
Transportation
Telecommunications
Real Estate/Property
Mining
Healthcare
$bn
0
2
4
6
8
10
12
14
16
FY 2015
FY 2016

Project Finance

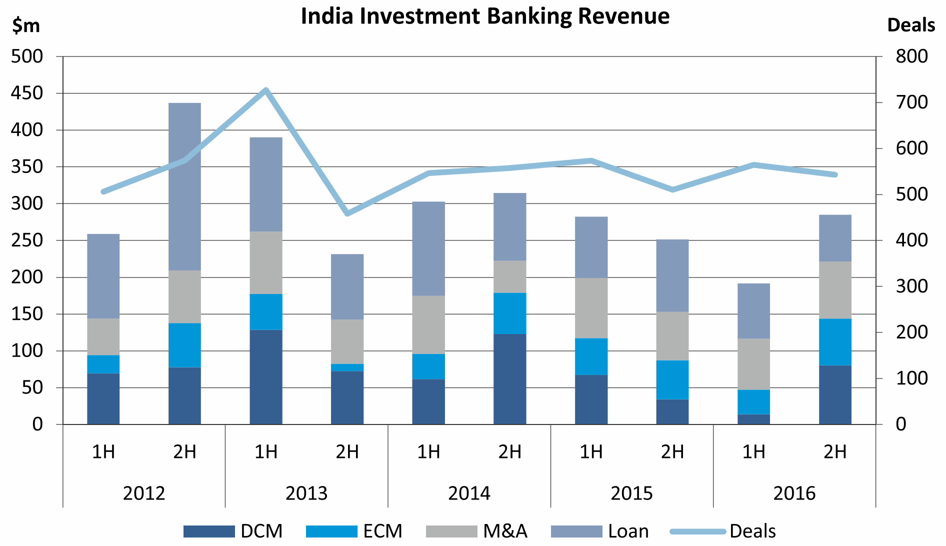
India Project Finance Loans Ranking FY 2016				
Pos.	Mandated Lead Arranger	Value $m	# Deals	% Share
1	State Bank of India	8,055	34	53.3
2	Axis Bank Ltd	1,787	16	11.8
3	ICICI Bank Ltd	1,167	17	7.7
4	IDFC Bank Ltd	566	8	3.7
5	Yes Bank Ltd	523	6	3.5
6	Rural Electrification Corp Ltd	478	4	3.2
7	IDBI Bank Ltd	379	3	2.5
8	Oriental Bank of Commerce	378	3	2.5
9	Punjab National Bank	369	3	2.4
10	Power Finance Corp Ltd	249	1	1.6

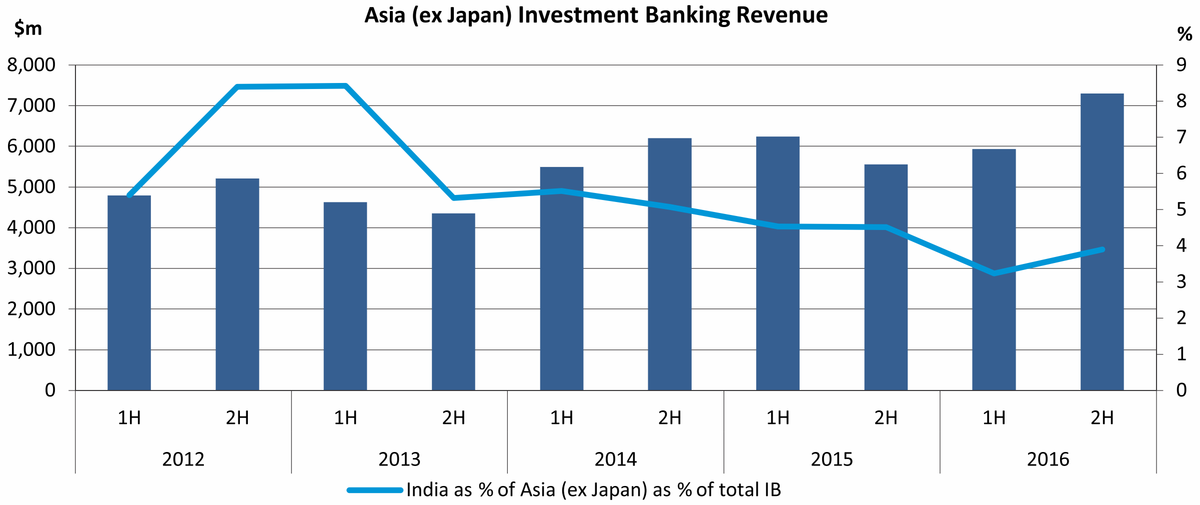
India Sponsor Ranking for Project Finance FY 2016				
Pos.	Sponsor	Value $m	# Deals	% Share
1	Reliance Anil Dhirubhai Ambani Group	2,873	1	9.3
2	KSK Power Ventur plc	2,511	4	8.1
3	Adani Group	1,311	17	4.2
4	Jindal Steel & Power Ltd	1,136	6	3.7
5	GMR Infrastructure Ltd	925	7	3.0
6	Chambal Fertilisers & Chemicals Ltd	708	1	2.3
7	RattanIndia Infrastructure Ltd	641	2	2.1
8	Essel Group	609	3	2.0
9	Sadbhav Engineering Ltd	600	5	1.9
10	Mytrah Energy Ltd	600	2	1.9

Top 10 Indian Project Finance Deals FY 2016				
Financial Close Date	Borrower	Project Name	Sector	Value $m
23-Aug	Sasan Power Ltd Sasan	Coal Based Power Plant Refinancing	Power	2,873
27-Jun	KSK Mahanadi Power Co Ltd	KSK Mahanadi Power Project Additional Financing	Power	1,220
25-Nov	Rattan India Nasik Power Ltd	Nasik Thermal Power Project Phase Additional Financing	Power	1,073
25-Nov	KSK Mahanadi Power Co Ltd	KSK Mahanadi Power Project Cost Overrun Financing	Power	841
26-Sep	Ramagundam Fertilizers & Chemicals Ltd	Ramagundam Fertiliser Plant Expansion Project Petrochemical/Chemical	Plant	787
24-Oct	Thermal Powertech Corp India Ltd	1320MW Andhra Pradesh Thermal Power	Plant Refinancing Power	761
5-Mar	Chambal Fertilisers & Chemicals Ltd	Chambal Fertilizer Plant Expansion Project Petrochemical/Chemical	Plant	708
22-Mar	HPCL-Mittal Energy Ltd	HPCL Mittal Refinery Expansion Refinancing 2016	Oil Refinery/LNG and LPG Plants	706
20-Oct	Delhi International Airport Pvt Ltd	Delhi Airport PPP Bond Refinancing 2	Airport	523
9-Sep	Meenakshi Energy Pvt Ltd	Meenakshi Energy Thermal Power Plant Phase I-II Financing	Power	502

Investment Banking Revenue

- **India IB revenue** reached $477m for 2016, down 11% on 2015 ($534m). However, revenue second half was up by 13% compared with 2H 2015 ($251m)
- **Syndicated Loan fees** accounted for 29% of total India IB revenue for 2016 with $139m which is down by 24% on the $182m for 2015
- **DCM revenue** accounted for 20% of total India IB revenue for 2016 with $94m which is down by 8% on the $102m for 2015
- **M&A fees** accounted for 31% of the total India IB revenue for 2016 with $147m which is down by 1% on $148m for 2015
- **ECM fees** accounting for 20% of the total India IB revenue, decreased 6% to $97m in 2016 from the $103m for 2015





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Trident, Nariman Point, Mumbai
March 01, 2017

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PICUP Fintech is a marquee event organized by collaborative effort of FICCI, IBA, NASSCOM and BCG to bring together disruptive Fintechs, leading bankers, technology experts and policy makers. It will serve as a ground for all stakeholders to understand and appreciate various innovations that are redefining financial services landscape and will also provide potential opportunities for partnerships.

KEY SPEAKERS

Mr. R Gandhi
Deputy Governor
Reserve Bank of India

Mr. J A Chowdary
Special Chief Secretary and
IT Advisor to the CM,
Govt. of Andhra Pradesh (AP)

Mr. Sopnendu Mohanty
Chief Fintech Officer
Monetary Authority of Singapore

PICUP Fintech is unique

Product Demonstrations by Pathbreaking Fintechs
Handpicked Fintechs will showcase their latest technological innovations.

Power Packed Panel Discussions
Opportunity to hear from the top experts (bankers, policy makers, VCs and incubators) on topics that are set to become break-out trends.

High Impact Networking Session
Participants will get an opportunity to interact and build connect with the most influential people in the industry.

Insightful Sessions with Thought Leaders
BCG experts and global leaders will share their viewpoint on the latest trends in the industry and experiences from across the world in Fintech – Bank collaboration.

OTHER EMINENT SPEAKERS

- **Mr. Rajnish Kumar**, MD (NBG), State Bank of India
- **Ms Zarin Daruwala**, CEO - India, Standard Chartered Bank
- **Mr. Ashok Kumar E R**, CEO, Scripbox
- **Mr. V.R. Govindarajan**, Co-Founder, Perfios
- **Mr. Manoj Kulkarni**, Managing Director, Barclays Technology Centre India Ltd.
- **Mr. Akshay Mehrotra**, CEO, EarlySalary
- **Dr. Kailash Nadh**, Chief of Technology, Zerodha/Co-Founder, Rainmatter
- **Mr. Sameer Nigam**, CEO, Phone Pe
- **Mr. Anuraag Saboo**, Director and Head of Research, Gumption Labs
- **Mr. Amit Sachdev**, Co-Founder and CEO, CoinTribe
- **Mr. Shantanu Sengupta**, MD and Head, Consumer Banking, DBS Bank India
- **Mr. Sandeep Sharma**, MD, South Asia and Middle East, NICE
- **Mr. Pankaj Sharma**, EVP, Retail Operations, Axis Bank
- **Mr. Deepak Sharma**, EVP and Head - Digital Initiatives, Kotak Mahindra Bank
- **Mr. Vikram Vaidyanathan**, Managing Director, Matrix Partners
- **Mr. Ranu Vohra**, MD and CEO, Avendus Capital Pvt. Ltd.
- **Mr. Nitin Vyakaranam**, CEO and Founder, ArthaYantra

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