

Opportunities and Challenges of FinTech

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I am extremely happy to participate in NITI Aayog's FinTech Conclave 2019 and share my thoughts on the technological revolution that is shaping the future of finance. I am particularly thankful to Shri Amitabh Kant, CEO of NITI Aayog for having invited me to such an august gathering. As I understand, this Conclave is woven around the theme of Indian FinTech ecosystem as well as steps required to help achieve the potential that the sector offers towards growth, employment and inclusion. Given the wide canvas that FinTech encompasses, I have organised my thoughts on some of the core issues in this area.

2. In general, FinTech stands for financial technology and describes technologically enabled financial innovations. From 'start-ups' to 'big-techs' to established financial institutions, all the key players are harnessing this technological edge along the financial services' value chain to provide agile, efficient and differentiated experiences to the end-user. This movement has the potential to fundamentally transform the financial-landscape where consumers will get to choose from a larger set of options at competitive prices and financial institutions could improve efficiency through lower operational costs. As a country that is determined to achieve universal financial inclusion at affordable costs, this is a defining moment for us, and we should seize the opportunity.

FinTech Experience in India

3. India has been at the forefront of this revolution. A recent global survey ranks India second in terms of FinTech adoption, with an adoption rate of 52 per cent¹. It is reported that there are as many as 1218 FinTech firms operating in India which have created a large number of jobs. They are also generating a healthy appetite for investment.

4. The Reserve Bank has over the years encouraged greater use of electronic payments so as to achieve a “less-cash” society. The objective has been to provide a payment system that combines the attributes of safety, security, enhanced convenience and accessibility, leveraging technological solutions that enable faster processing. Affordability, interoperability, and customer awareness and protection have also been other focus areas. Banks have been the traditional gateway to payment services. However, with the fast pace of technological changes, this domain is no longer the monopoly of banks. Non-bank entities are cooperating as well as competing with banks, either as technology service providers to banks or by directly providing retail electronic payment services. The regulatory framework has also encouraged this enhanced participation of non-bank entities in the payments domain.

5. In recent years, a focussed effort has been made to develop a state of the art national payments infrastructure and technology platforms, be it Immediate Payments Service (IMPS), Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), Bharat Bill Pay

¹ EY FinTech Adoption Index 2017, Available at [https://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/\\$FILE/ey-fintech-adoption-index-2017.pdf](https://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/$FILE/ey-fintech-adoption-index-2017.pdf)

System (BBPS), or Aadhaar-enabled Payment System (AePS). This has changed the retail payments scenario of the country. The total volume of retail electronic payments witnessed about nine-fold increase over the last five years.

6. Let me now mention some numbers with regard to digital modes of payment. The NEFT system handled 195 crore transactions valued at around Rs.172 lakh crore in 2017-18 growing by 4.9 times in terms of volume and 5.9 times in terms of value over the previous five years. Similarly, the number of transactions carried out through credit and debit cards in 2017-18 was 141 crore and 334 crore, respectively. Prepaid payment instruments (PPIs) recorded a volume of about 346 crore transactions, valued at Rs.1.4 lakh crore. Thus, the total card payments, in volume terms, stood at 52 percent of the total retail payments during the year 2017-18.

7. Developments in the spheres of banking technology and trade finance have been commendable as well. Alternative models of lending and capital raising are coming up and have the potential to change the market dynamics of traditional lenders and the role of traditional intermediaries. Crowd-funding, which entails raising external finance from a large group of investors, is at a very nascent stage in India. The peer-to-peer (P2P) lending for which RBI has issued Master Direction in October 2017 has the potential to improve access to finance for small and medium enterprises. Eleven entities have been licensed to operate P2P platform. The Reserve Bank has also granted licenses and permitted seven purely digital loan companies (NBFCs) to commence operations. Although they are purely digital players operating through

mobile applications, we have ensured that they have at least one physical presence for customers to reach out to in case of need.

8. Furthermore, seven payment banks have commenced operations. These technology-led banks use FinTech, both while onboarding customers as well as while carrying out operations.

9. Invoice trading is another nascent area of FinTech application in India. It assists MSMEs which often have working capital and cash flow problems due to delayed payments. The Reserve Bank has set up the Trade Receivables Discounting System (TReDs), which is an innovative financing arrangement where technology is leveraged for discounting bills and invoices. Three entities have been authorised for this purpose and the volumes are slowly gaining traction.

10. Another initiative has been laying down a regulatory framework for Account Aggregators (AA). A total of five entities have been given in-principle approval as NBFC-AA and are expected to commence their operations during 2019-20.

11. To further deepen digital payments and enhance financial inclusion through FinTech, the Reserve Bank of India (RBI) has also appointed a five member committee under the chairmanship of Shri Nandan Nilekani.

12. While opening a new world of opportunities, the FinTech revolution has its own share of risks and challenges for the regulators and supervisors. Early recognition of these risks and initiating action to mitigate the related regulatory and supervisory challenges is key to harnessing the full potential of these developments. I would, therefore, like to give a bird's eye view of these opportunities, risks and challenges,

especially in the Indian context as also the policy roadmap that we have in mind.

Opportunities, Risks and the Way Forward

Let me first highlight the opportunities in the area of digital onboarding and financial inclusion.

Digital onboarding and financial inclusion

13. There are two broad areas that merit attention in the Indian context: the first is regarding improving the accessibility of financial platforms using FinTech; and the second is about analysing potential risks that may arise out of FinTech adoption. Designing suitable financial products that cater to specific needs of the financially excluded population, digital onboarding and boosting the quantum of investments are vital in achieving the first objective. Effective utilisation of Aadhaar eco-system may provide incentives for the people to adopt digital platforms as it is happening in the case of direct benefits transfer (DBT). The central KYC registry is a significant step in this regard – about 100 million KYC records have already been uploaded onto this platform. We also need to ensure multi-lingual financial literacy and a robust grievance redressal machinery to effectively handle inter-regional disparities and to offer online dispute resolutions.

RegTech and SupTech

14. As regards potential risks and their mitigation, RegTech² and SupTech³ have an important role. Regulators and supervisors have to

² RegTech is an application or platform which makes regulatory compliance more efficient through automated processes and lowers the costs of compliance. RegTech focuses on technologies that facilitate the delivery of regulatory requirements more efficiently and effectively.

³ SupTech is technology to be used by the regulators and supervisors to support supervision. The objectives of SupTech are seamless and straight-through data collection / reporting, data analysis and decision making, streamlined licencing, market monitoring and surveillance, KYC / AML / CFT, cybersecurity data or evidence based policy making.

undertake accelerated off-site surveillance. This also brings in the need for a transparent, technology and data-driven approach. To serve this need, new fields called RegTech and SupTech are coming up. Both the technologies aim at improving efficiency through the use of automation, introducing new capabilities and streamlining workflows. In the Reserve Bank, we have been using SupTech for data collection and analysis. The examples are Import Data Processing and Monitoring System (IDPMS), Export Data Processing and Monitoring System (EDPMS) and Central Repository of Information on Large Credits (CRILC), to name a few. Also, the risk-based supervision of banks is extensively data-driven and is an example of SupTech. The future of RegTech and SupTech technologies, however, lie in big data analytics, artificial intelligence, machine learning, cloud computing, geographic information system (GIS) mapping, data transfer protocols, biometrics, *etc.*

15. A strong risk culture - in which risk detection, assessment and mitigation are part of the daily job of bank staff - will be central to the success of managing the emerging risks. Similarly, systemic risks may arise from unsustainable credit growth, increased inter-connectedness, procyclicality, development of new activities beyond the supervisory framework and financial risks manifested by lower profitability. Risks for FinTech products may also arise from cross border legal and regulatory issues. Data confidentiality and customer protection are major areas that also need to be addressed.

16. The Reserve Bank has encouraged banks to explore the possibility of establishing new alliances with FinTech firms as it could be pivotal in accelerating the agenda of financial inclusion through innovation. It is essential that flow of investments to this sector is unimpeded to realise

its full potential. It is imperative to create an ecosystem which promotes collaboration while carefully paying attention to the implications that it has for the macroeconomy.

17. In order to ensure an orderly development of FinTech, to streamline their influence into the financial system, to protect the customers and to safeguard the interest of all the stakeholders, we need to have appropriate regulatory and supervisory frameworks. Such frameworks should address associated risks while keeping in mind the growth requirements of this sector. The Reserve Bank's working group on FinTech and digital banking ([Report of the working group on FinTech and digital banking, November 2017](#)) suggested the introduction of a 'regulatory sandbox/innovation hub' within a well-defined space and duration to experiment with FinTech solutions, where the consequences of failure can be contained and reasons for failure analysed. A 'Regulatory Sandbox' would benefit FinTech companies by way of reduced time to launch innovative products at a lower cost. Going forward, the Reserve Bank will set up a regulatory sandbox, for which guidelines will be issued in the next two months.

Conclusion

18. In conclusion, I would like to say that FinTech has the potential to reshape the financial services and financial inclusion landscape in India in fundamental ways. It can reduce costs and improve access and quality of financial services. We have to strike a subtle balance between effectively utilising FinTech while minimising its systemic impacts. By enabling technologies and managing risks, we can help create a new financial system which is more inclusive, cost-effective and resilient.

Thank you.