FINTECH AND ITS EFFECT ON INDIA'S CHANGING FINANCIAL LANDSCAPE: AN EXPLORATORY STUDY

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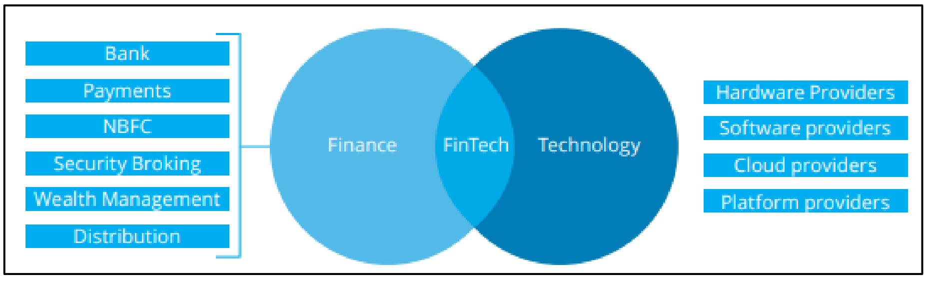
I. Introduction

Innovation is the need of any business which is all about novel thoughts that produce great value. We are living in the age of Digitalization and we are constantly moving in that direction by adopting pioneering technology to ensure more effective and prolific way of life. In the area of Finance too, we are consistently upgrading the products, services, methodology and system with new technology. Such an innovation and upgradation in Finance through technology is known as FinTech (Financial Technology). FinTech as a concept developed only in 21st century. FinTech is the combination of 'Financial Services' and 'Technology. The adoption of technology in the field of financial services viz., Banking, Share market, Insurance sector, Mortgage loans etc. with database management, analytical tools, and innovative approach. The prominent operators of FinTech are; Banking and Insurance sector, Financial Institutions, Small and Medium Enterprises (SMEs), Start-ups, and individuals. Since 2016, India is actively engaged with FinTech after the demonetization of high denominated currency notes. From then, Unified Payments Interface (UPI) payment technique is highly engrossed by the Government of India. Many start-ups started using the innovative technology to make easy and cashless payments. FinTech will play an important role in achieving the cashless economy. Digitalization not only minimizes the time and cost, but also increases the efficiency.

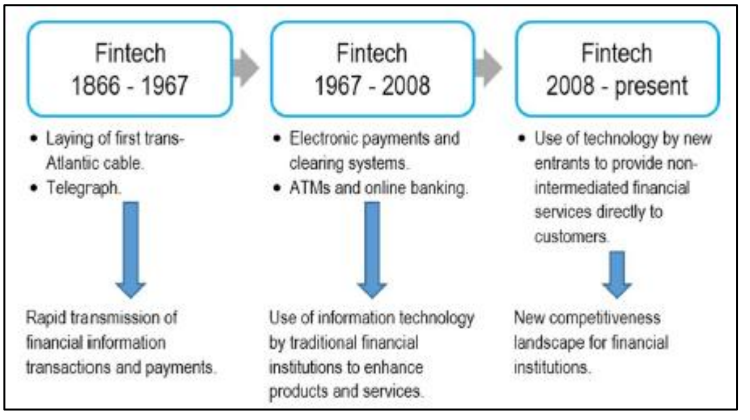
Fig.1: Fin Tech – Convergence of Financial Services and Technology



Source: Deloitte International Analysis

FinTech comprises many tools and technological advancements that are way different from the traditional methods. In the recent scenario, a huge number of FinTech firms are coming into market by offering variety of new financial solutions and services that are of great demand. In today's ecosphere, Financial institutions are having higher significance. Even a minor change makes enormous impact on the global economy. Even though finance as a domain met numerous demanding revolutionary waves over the period, it has succeeded to adopt and endure from those changes. At present, financial institutions and the industry as a whole are witnessing massive change because of FinTech. The consequences of this change are yet to be fully explored and signifies huge challenge for different stakeholders viz., policy makers, academicians, service providers, intermediaries, economists and the general public. Thakor (1999) specified that information technology will inspire the specialized firms which are generating niche markets with superior customized product in order to cater consumers preferences. Peer-to-Peer (P2P) lending, cryptocurrencies and many other innovations are all segments of an emerging technology-supported personalized financial services.

Fig. 2: Phases in Fintech Evolution



Source: Consumers International, 2017

As the name 'FinTech' proposes, it is the fusion of financial service and technology. Technology has constantly affected the finance industry with developments thereby altering the way the finance industry functions. For example, the emergence of Automatic Teller Machines (ATM) or Online transactions of money were some of the key innovations in Financial service. What makes the current FinTech revolution so special than earlier innovations? First and foremost, the speed at which new innovative financial know-hows and technologies are tested is much quicker than earlier. Secondly, the most important thing about FinTech revolution is; it is unique, as the change happening is from external environment (i.e.) new start-up firms and large recognized technology companies are endeavoring to intrude the financial services by presenting innovative products and technologies thereby offering a significant competition in an innovative manner.

Startups in Finance are providing computerized automatic guidance, touchless payments, and many other services that brings many social and economic benefits which includes lesser prices and better accessibility to credit. Purely from the perspective of product categorization, fintech's role can be split into those providing credit, payments process, delivering advice, Asset management and legal compliance. Fintech being the relatively new category of companies, the business models are based on digital products. In spite of intensive competition from large technology firms, the chief driving force of fintech innovation has come from numerous technology-based startups attracting investments in billions of dollars each year. India is doing fairly well in adopting FinTech compared to most other nations.The destructive impact of global financial crisis in 2008 has created every reason to suspect the purpose and working ethics of financial services firms across the globe. Even big financial institutions all across the world suffered the worst from both economic as well as from public trust perspectives. The failure of big firms to meet the expectations of different stakeholders has opened the doors for a small-scale innovative technology-based financial institution. The substitute to existing banks and financial institutions emerged with small, controllable, and transparent features. Therefore, it is judicious to express that the global economic and financial crisis in 2008 signified the landmark to trigger fintech 3.0 phase.

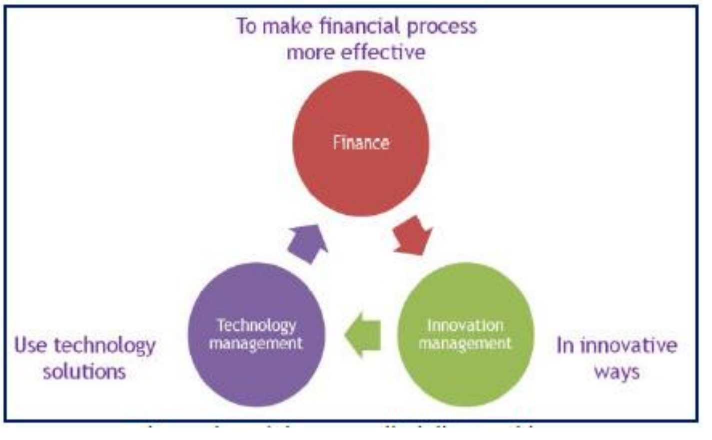
Table. 1: FinTech Country Ranking

Global Fintech Rank	Change from Startup Rank	Country	Total Score
1	±0	United States	31.789
2	±0	United Kingdom	23.262
3	+18	Singapore	19.176
4	+14	Lithuania	17.343
5	+3	Switzerland	16.018
6	±0	The Netherlands	14.464
7	±0	Sweden	14.272
8	-3	Australia	13.555
9	-6	Canada	13.322
10	+3	Estonia	13.303
11	-2	Germany	12.787
12	-8	Israel	12.771
13	-3	Spain	12.372
14	-2	Finland	12.110
15	+2	India	12.024

Source: *www.findexable.com*

FinTech companies across the globe are attracting huge investments from different set of investors like investment banks, venture capital firms etc. Fig. 5 will depict the quantum of investments happening in FinTech companies worldwide.

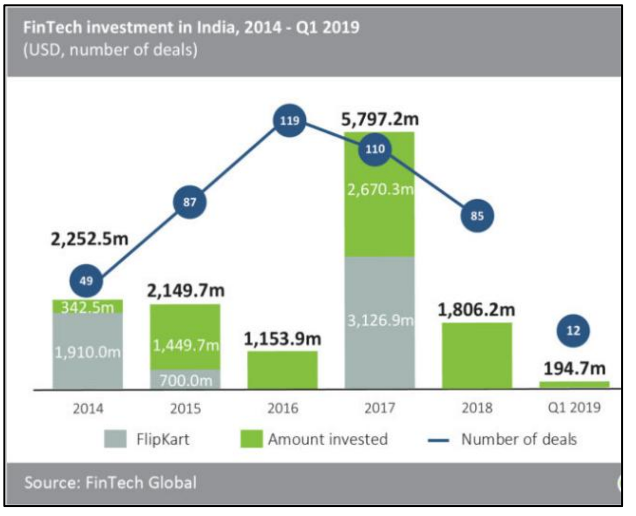
Fig. 3: FinTech – Cross Disciplinary nature



Indian FinTech Scenario

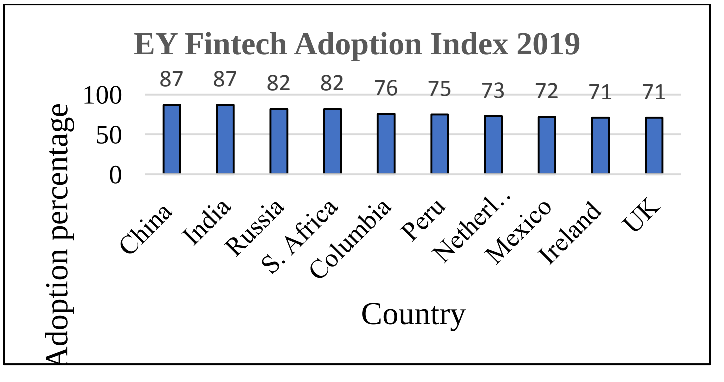
As per Fintech Global, Indian FinTech firms have raised over $13 billion through more than 460 deals since 2014.The FinTech business has phenomenally grown and no more made up of only new start-up companies, FinTech industry has a many seasoned firms that provides a wide range of financial services and functions at an international level.In Emerging markets, FinTech adoption is much higher than the global average. India and China were leading the FinTech adoption index in 2019.

Fig. 4: Investments in World-wide Fintech Companies (in billion US$)



Some of the challenges faced by Indian FinTech firms are; (i). Small and inexperienced management teams who lacks capability, (ii). Fewer financial and economic resources that avert appropriate scaling, (iii). Inadequate credit facilities and lack of startup exposure, (iv.) Non-availability of a established business models, (v). Failure to attract talents in analytics domain and skillful personnel and (vi) Lack of full compliance knowledge.

Fig. 5: Fintech Adoption Index by Country



Source: EY FinTech Adoption Index 2019

FinTech effects on Banking and Financial Sector

Post Financial Crisis, FinTech firms progressed rapidly which enables to raise question of the question whether or not FinTech companies are heading to replace traditional banks and financial institutions. However, many believes that banks and Financial institutions are going to adopt fintech developments into their core businesses and successfully overcome this transition phase. There is also a view that banking and financial institutions cannot embrace Financial technology instantly because of strict regulations. Though regulating guidelines are not a hindrance for the innovation and change, the strict guidelines will keep the banks under the pressure of preventive actions to attempt innovative process and actions. Most used FinTech services are for Transfers & Payments, Insurance, Savings and Investments, Borrowing and Financial Planning. Advantages of FinTech are; More accessible financial markets for ordinary consumers and Easy distribution of financial services.

Fintech businesses are being recognized to expand the services presently being provided by traditional banks and other financial firms. As FinTech firms are entering into a new period of growth, regulating authorities are having a constant eye on them to protect consumers and look for objectionable practices. FinTech firms have mainly created disruption for big banks and age-old financial service firms. One of the common examples of such disruption can be witnessed in a quantum of mobile applications (apps) that provide share trading without levying charges per trade from users. FinTech is an application of technology to offer novel and better financial services. Technology has been a crucial facilitator in the digital economy's expansion. Over the time period, banks and financial institutions in India have gradually and carefully adopted technology to expand the reach, service and working efficiency with growing market and advancements in technology. Despite of all these efforts, the speed of technology adoption has not as expected compared to its potential and hence there are gaps in the penetration of financial services. Although, FinTech is creating the banking experience more instinctive, tailored and empowering, the convergence of growing technologies and financial services holds the key to make a robust digital Indian economy. Equipped with better data management, analytics competences and nearly zero process cost, FinTech firms are supplementing and in certain areas competing the existing banking and financial institutions worldwide. Be it exploring new financial segments or making an inroad into foreign markets, Indian FinTech start-up firms are chasing several ambitions. As per NASCOMM, the India's FinTech software market is predicted to reach US$ 2.4 billion by the end of 2020.

The India's age-old cash transaction-based economy has responded superbly to the FinTech prospect which is mainly because of e-commerce boom and smartphone usage growth. The domains that Fintech affects in banking and financial services are: (i) credit, deposits, and capital-raising services; (ii) payments, clearing and settlement services, including digital currencies; (iii) investment management services (including trading); and (iv) insurance. In India, very few banks are having a strong financial strength to reach global competency. FinTech is a way to become strong in digital payments and transactions. According to the Payments Council of India, the digital payments industry has higher growth rate than before demonetization period.Many FinTech companies combine automated analysis of retail customers with user-friendly interfaces to offer financial services that are more appropriate at lesser fee. One suitable example is that 'marketplace lending' platforms have become a new lending forum that entices borrowers because of its easy and simple loan application method. Traditional banks and financial service firms have seen technology as support system to business propositions, rather than creating new business propositions themselves. But, FinTech firms are changing that function by taking advantage of digital technologies in order to make innovative business propositions and target new market segments. The effect of new technologies on banks and financial firms due to innovative frameworks like blockchains and cryptocurrencies are already disrupted the way industry functions and yet to witness the full impact. However, the likely benefits of these technologies are adequate to induce significant attention from technology savvy people, entities and governments.

India's financial intermediation cost is high at 3.15 percent compared to 2 percent in advanced nations (Payments Council of India report, 2017). FinTech firms may help to reduce this existing high intermediation cost which will benefit the consumers ultimately. The convergence of information technology, financial services and regulatory guidelines will play a significant part in creating a robust Indian digital economy (Digital Money Conference, 2017). Some of the leading fintech companies are effectively conducting their operations in India are Policy Bazar, lending kart, Pay Sense, Mobik wik. Capital Float, Bank Bazar, Paytm, PhonePe, PayU etc

Table. 2: Electronic clearing and Card Payments

Item	Volume (million)			Value (₹ billion)		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
1	2	3	4	5	6	7
Total Retail Electronic Clearing (7 to 12)	**4,222.9**	**6,382.3**	**12,466.7**	**132,324**	**193,113**	**267,515**
7. ECS DR	8.8	1.5	0.9	39	10	12.6
8. ECS CR	10.1	6.1	5.4	144	115	132.35
9. NEFT	1,622.1	1,946.4	2,318.9	120,040	172,229	227,936
10. IMPS	506.7	1,009.8	1,752.9	4,116	8,925	15,903
11 UPI	17.9	915.2	5,353.4	69	1,098	8,770
12. NACH	2,057.3	2,503.3	3,035.2	7,916	10,736	14,762
Total Card Payments (13 to 15)	**5,450.1**	**8,207.6**	**10,781.2**	**7,421**	**10,607**	**14,097**
13. Credit Cards	1,087.1	1,405.2	1,762.6	3,284	4,590	6,033
14. Debit Cards	2,399.3	3,343.4	4,414.3	3,299	4,601	5,935
15. PPIs	1,963.7	3,459.0	4,604.3	838	1,416	2,129

Source: RBI Annual Report, 2019

FinTech – Conclusion and a way Forward

It is well-known that Financial sector across the world, more specifically in India, is undergoing a digital revolution. The disruptions created by these new digital revolutions has the possibility to reduce the role and significance of the existing banks. The banks started acknowledging that they require to come out of institutional complacency. In forthcoming years, financial services will be like a layer below which everything built on the top of it. To some extent the layer will be allowed by a big player and everybody will work with him. It is no more single or few companies in financial services industry. To stay in the market and competitive, they have to collaborate with FinTech companies to grow. Many startups are looking towards to accelerate their growth through faster, cheaper and broader distribution of services against the traditional ones which are costlier and riskier as well. In the future, it is expected that banks will outsource or start the task of managing technology with external companies that they can concentrate on risk management and running their business. All physical banks will be closed as all of them are currently on the path to get their process digital. FinTech has excellent social and economic transformative potential. Many view FinTech as 4th industrial revolution. The emergence of FinTech firms is just the new innovative trend to disturb the banking sector, it is expected that lot of innovations are in the pipeline for banking and financial service sector.

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