

Financial Technology in Indian Scenario, Strength and Threats

Kunal Tiwari ^a

^a Assistant Professor, SAGE University Indore.

ABSTRACT:

Financial Technology stands for Financial Technology; Financial Technology provides various solutions for banking and non-banking financial services. Financial Technology is very fast-growing concept in the financial sector. The main reason for the publishing of this paper is to study the Strength and threats in the Financial Technology Sector. It determines the evolution of the Financial Technology sector and recent financial technology (Financial Technology) in the Indian financial sector. The Financial Technology imparts digital transaction and security for the user. The benefits of Financial Technology services minimize operation costs and it is user friendly. The Financial Technology services in India is growing very rapidly as compare to the world. These services are modifying the purchasing tactics of the Indian Customers.

Keywords: Financial Technology integration, Net Banking, Banks, Financial Services, Financial Technology Revolution. Crypto Currency, Digital Apps

1. Introduction:

The word “Financial Technology” was first used by a New York banker in 1972. While there is no widely accepted definition of what lies under the term Financial Technology, companies considered to belong to that sector provide services including payment options, online marketplace lending, mobile apps, financing, foreign exchange and remittances, investments, distributed ledger technology, digital currencies, mobile wallets, artificial intelligence and robotics in finance, crowd funding, banking and insurance, wealth management, with an expanded definition considered to include ancillary technology solutions targeted at financial services, such as electronic identity, biometrics, smart wearables, and technology to assist with Regulatory Compliance (RegTech) (Digital Finance Institute, 2016). As such, the financial services sector has become significantly impacted and influenced by emerging technology-enabled trends that support innovation.

2. What is Financial Technology?

Financial Technology implies to the novel processes and products that become available for financial services thanks to digital technological enhancements. More accurately, the Financial Stability Board defines Financial Technology as technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated materialistic effect on financial markets and institutions and the provision of financial services. Nonetheless, the Financial Technology segment includes many elements, which according to Dortfleitner et al. (2017: 34-36) can be loosely categorized into four main segments i.e. financing, asset management, payments and other Financial technology.

3. Evolution of Financial Technology

In the broad means, the word FinTech is formed from the abbreviations of two words, namely Financial and Technology. Officially, World Economic Forum defines Financial Technology as “companies that provide or facilitate financial services by using any technology. In its recent form, Financial Technology is marked by technology companies that

disintermediate formal financial institutions and provide direct products and services to end users, often through online and mobile channels” [2]. Another definition for Financial Technology by PwC (2016a) is “a dynamic segment at the intersection of the financial services and technology sectors where technology-enabled start-ups and new market entrants renovate the products and services recently provided by the traditional financial services industry. As such, Financial Technology is getting enough momentum and causing disruption to the traditional value chain” [3]. Further Gartner defines as “Financial Technology are start-up technology providers that provides emerging digital technologies that approach financial services in innovative and creative forms or can basically change the way bank products and services are created and distributed, to generate revenues. This term may also refer to the smart technologies those providers offer” [4]. Other definitions such as Financial Technology integrates finance and technology together, traditional financial structures combined with today’s technology-based processes [5] and simple one Financial Technology refers to the application of technology in financial service sectors and industries [6].

Even though, all these definitions are not focusing on a single meaning, moreover they are elaborating same things. Financial Technology are using technology in financial services in unusual ways. Financial Technology spelled differently in various studies; Financial Technology, Fin-Tech or fin-tech but in this study, it is used as Financial Technology. Although some authors connect Financial Technology roots back to the beginning of 90’s by evolution of internet facility [7], others claimed Financial Technology were around already in the 1950’s [8]. When we look at the representation of Financial Technology, we can pursue our research even back to mid-eighteenth century. Financial Technology term entered in our lives recently, but relationship among Financial Technology , financial industries and financial institutions, in the sense we understand, started in 1866, by laying down transatlantic cable between Europe and America. Major intention of laying cable was to build a communication channel amongst continents. However, in time, it was started to use for transferring mutual economical information [9] [10]. First time in history financial services started to use digital channels to communicate but still most of the financial services stayed non-digital. This is why this era from 1866 to 1967, defined as financial services move from non-digital to digital and era characterized as Financial Technology 1.0 [11]. Developments in communication technology and processing technologies for financial services changed intuition of traditional institutions. First usage of ATM (Automatic Teller Machine) in Great Britain started the period of Financial Technology. In the 1980s, banks started using precious computers to calculate precious methods, analysing data and keeping records of various transactions. Some of these computers were large and they covered up to one whole office arena. By 2005, the first internet only bank started doing business in the UK[12]. From the beginning of the 21st century to until now, banks’ local operations and interactions with external and internal customers have started to become fully digitalized. Up until now, Financial Technology was majorly related with Bank’s business processes on the backplane, but with the help of the developing technology, in the 1980s, customers started to involve in bank processes directly. This is the fact why the period from the 1980s to early 2000s has called modern era of Financial Technology. The destructive effects of the 2008 global economic crisis brought severe questions about the ethical legitimacy of financial services on to the table. It was not the beginning of these questions but it is difficult to identify how these questions started and where it was started. Big financial institutions all over the globe took the biggest hit from both economic and public trust factors. Crisis environment and low public trust on big companies explore the way for a new kind of financial institutions. An alternative to current financial institutions came into the picture with small, controllable, and transparent features.

Therefore, it is reasonable to say that the 2008 global financial crisis represented the milestone to trigger Financial Technology era.

4. Financial Technology Integration Process

In order to establish strategic partnerships with Financial Technology for getting new customers, increase customer delight and enhance operational accuracy; we, as Digital Transformation and Innovation Department, established “Financial Technology Integration Process” which consists seven steps. All these steps, covers whole integration process from finding necessary Financial Technology for going live.

4.1 First contact:

Digital Transformation and Innovation (here mentioned as DTI) department receives Financial Technology integration demands from four different channels. In first channel, one of the other departments in banks come for Financial Technology integration request. This request contains a particular Financial Technology for its integration. Financial Technology’s business model and background is investigated by DTI for evaluation. Next is the, department comes with a particular issue on which their believe can be resolved by Financial Technology. High operational expenditures and scarcity of expertise can run departments to look for outsourced solutions. DTI starts scouting to find the most suitable Financial Technology for the departmental enhancement. Thirdly, DTI members meet Financial Technology in conferences and events. These kinds of organizations could be a good place to meet and recognize Financial Technology and their business model. In order to start using APIs, Financial Technology needs permission of the DTI.

In a nut Shell four channels listed as follows;

- Department brings specific Financial Technology
- Department brings issues that can be resolved by Financial Technology
- By various Events or Conferences
- Application Platform

4.2 Financial Technology Supervise and Researching

DTI starts supervising necessary Financial Technology in both worldwide markets and domestic markets. This process is the same for all Financial Technology first contact channels, due to the possibility of alternative offerings of other Financial Technology. truthfully is a possibility that some other Financial Technology may provide better solutions. Supervising process starts with basic google search. News, media information and blogs were scanned to find fundamental information about Financial Technology and its alternatives. After that, in order to deep dive, salient Financial Technology are searched in Financial Technology databases like Startups watch and CrunchBase. Information like owner, estimated valuation, total funding etc. are collected for the primary evaluation. This information helps us in shortlisting Financial Technology on hand.

4.3 Financial Technology Introduction

DTI establishes a meeting by inviting relevant departments and Financial Technology. Some Financial Technology attends this meeting in their physical presence and some prefer to attend by using online mode. Financial Technology makes a short introduction of team members, their background, business model and solutions. Presentation for their solution is demonstrated. There are some important questions prepared by DTI to ask on Financial

Technology. After the meeting, for few minutes, DTI and departments make an assessment of the meeting. If majority of the attendees satisfied with Financial Technology, Financial Technology goes with Business Committee. Meeting record and presentation of the Financial Technology is send to Business Committee members to inform them.

4.4 Business Evaluation Committee

At a later date, Financial Technology is invited again for Business Committee. Because it is accepted as strategic decision, only the Vice Presidents of the concerned departments are invited. Meeting starts by briefing introduction of Financial Technology in front of the committee explained. It is followed by Q&A session where department Vice Presidents ask direct questions to understand Financial Technology's business model more clearly. At the end of meeting, after Financial Technology leaves, members of the committee stay to access the Financial Technology. All members express their opinions on pros and cons. The meeting ends by voting and majority of the votes decide whether to work with this Financial Technology or not. When Financial Technology pass the Business Committee successfully, a standard set of questions send to Financial Technology. This form includes technical questions, legal questions and compliance questions prepared by concerned departments. It is expected to receive answers from Financial Technology before coming to Technical Evaluation Meeting. Main purpose of this form is to prepare members of the Technical Evaluation Meetings for forthcoming meeting.

4.5 Technical Evaluation

Meeting Financial Technology who pass the Business Committee meeting successfully continue with Technical Evaluation Meeting. In this meeting, Financial Technology and integration process is evaluated by IT, compliance and legal concern. Therefore committee members are chosen from IT, compliance and legal departments. Members can be varied depending on the Financial Technology' s business model and solution. Meeting starts with Short introduction from Financial Technology and continues with a Q&A session. Committee members raise questions related to their profession. Financial Technology answers and asks questions about integration. At the end, the concerned committee members and Financial Technology establish common understanding about technical details of integration. Main reason of this meeting is to analyse integration points and prevent possible problems that could occur in the future. At the end of the meeting, committee members stay in meeting for a while to discuss technical details. All the members state their opinions and concerns. At the end of this discussion, committee members decide either Financial Technology is suitable for integration or not. Non-suitable Financial Technology are contacted to make necessary alteration for integration.

4.6 Proof of Concept (PoC)

Before entering Proof of Concept Process, DTI assembles meeting to inform senior management about Financial Technology who pass technical evaluation. Senior management evaluates Financial Technology for their value proposition. This meeting has two purposes, first one is to inform senior management and second one is to receive an opinion. Senior management is the last decision maker in Financial Tech integration process. After senior management evaluation, PoC stage initiates with the feasibility study. All facts of the integration is documented and sitemap of the integration is elaborated. Concerned departments make necessary developments and changes for integration addressed by the sitemap. As we are aiming to establish all Financial Technology integrations by using Application, we expect Financial Technology to register our Application platform on web. Registration gives us to recognize

Financial Technology in our Application platform to open our Application for PoC process. In cases where Application platform could not provide necessary Application for the Financial Technology, IT teams start development process for these specific Applications.

4.7 Going Live

After completing PoC process successfully, Financial Technology integration can go live. Integration can be used by all stakeholders from internal to external customers. Up to now, forty-one Financial Technology from different backgrounds were interviewed by the DTI. Twelve of them (approximately 30%) passed Business Evaluation Committee. Eight of them passed Technical Evaluation Meeting (around 20%) and four of them get approval from Senior Management. Two of them entered PoC process and finally, only one of them is live. In total, only 2% of the Financial Technology are successfully integrated to banking services. Most of the exemption happens because of improper Financial Technology. As per the bank policy, we are not making integration with startup Financial Technology. We prefer Financial Technology who have a certain number of customers with scale up structure.

Financial Technology In India

As per the Study of (KPMG 2016), India is transitioning into a dynamic ecosystem offering Financial Technology start-ups a platform to potentially grow into billion dollar unicorns. From tapping new segments to exploring global markets, Financial Technology start-ups in India are pursuing multiple expectations. The Indian Financial Technology software market is predicted to touch USD 2.4 billion by 2020 from a current USD 1.2 billion, as per NASSCOM. The traditionally cash-driven Indian economy has responded well to the Financial Technology opportunity, primarily triggered by a surge in foreign Trade, and Smartphone penetration. The transaction value for the Indian Financial Technology sector is estimated to be approximately USD 33 billion in 2016 and is forecasted to reach USD 73 billion in 2020 growing at a five-year CAGR of 22 percent. The investor attention has been concentrated towards hitech cities in 2015, with Bengaluru witnessing eleven VC-backed investment deals of USD 57 million, followed by Mumbai and Gurgaon with nine and six deals, respectively. Bengaluru, the start-up capital of India has benefitted from the same and is ranked 15 among the world's major start-up cities. India's growth wave may still not be of the scale when viewed against its global competitors, but it is stacked well, largely due to a strong skills pipeline of easy-to-hire and less costly technical workforce. From wallets to lending to insurance, the services of Financial Technology have redefined the way in which businesses and consumers carry out routine transactions. The increasing adoption of these trends is positioning India as an attractive market worldwide.

Threats and future of financial technology in India:

- In India, acceptance of various digital modes payments was seen after demonetization notes.
- The government itself provoked everyone towards the digital technologies like digital wallets, Internet banking, and the mobile-driven point of sale (POS). Linking with the Aadhaar card, eKYC, UPI and BHIM had restructured the financial sector in India. After the ban of 500 and 1000 notes, it was reported that cashless transactions raised up to 22% in India Financial Technology start-ups like PayTM , Google PAY, Phone Pay, and various online ,modes saw 435% of more traffic to the websites and Apps. This led to the enhancement of many Financial Technology start-ups in India as there are many opportunities to grow.

- Digital Finance firms have benefited from many government's start-up policies. RBI also allowed an easy way to start a Financial Technology start-up. Government is also providing the financial assist for start-up's up to 1 crore. Customers started accepting the digital currency for both personal and professional use.
- Due to various changes in the Indian economy, the financial structure of Indian banks and financial institutions were changed and digital wallet became a compulsory channel for the transfer of money. Integration of IT with finance led to the increase in the value of digital payment like Bitcoins. Crypto currency, Block chain system led to faster transactions of digital payments. Banks like HDFC, Federal Bank etc. linked there official digital transactions with the small startup in India like Startup Village which led to the growth even in small Financial Technology start-ups.
- Modernization of the tradition sector of banking and finance had increased more customers, reduced the time and were able to provide fast and quick services to the customers.
- Financial Technology industry also has few challenges, like Financial Technology startups, find a little difficult to reach the growing phase in the business cycle.
- As "Every Coin Has Two Sides" even Financial Technology industry in India also have few challenges, Yet these challenges can be converted into opportunities if a further support is provided by the government.(Parinita Gupta,2018, Financial Technology Ecosystem in India: Trends, Top Startups, Jobs, Challenges and Opportunities)

Conclusion:

The result of this study shows that Financial Technology industry change for the financial services in India. And India's fastest growing Financial Technology industry in the world. In the future, Indian Financial Technology software market is predicted to reach upto USD 2.4 billion by 2020 from a recent USD 1.2 billion, as per NASSCOM. The traditionally cash-driven Indian economy has responded well to the Financial Technology opportunity, primarily triggered by a surge in e-commerce, and Smartphone usage penetration. The transaction value for the Indian Financial Technology sector is estimated to be approximately USD 33 billion in 2016 and is forecasted to reach USD 73 billion in 2020 growing at a five-year CAGR of 22 percent. The Indian government also giving priority on and encourages Financial Technology industry and promote new ideas and innovations refer to the Financial Technology industry. Financial Technology is an emerging concept in the financial industry. Financial technology innovation in India more advantage for the Indian economy, the Financial Technology services more secure and user friendly. the Financial Technology services reduce their costs for financial services.

References:

- [1] Milian EZ, Spinola M de M, Carvalho MM de (2019) Financial Technologys: A literature review and research agenda. Electron Commer Res Appl 34:100833.
<https://doi.org/10.1016/j.elerap.2019.100833>
- [2] Michael Koenitzer, Giancarlo Bruno, Peer Stein, et al (2015) The Future of Financial Technology A Paradigm Shift in Small Business Finance. World Economic Forum
- [3] Dariush Yazdani, Grégory Weber (2017) Global Financial Technology Report 2017. KPMG
- [4] Susan Moore (2017) Separate Financial Technology Noise From Reality.
<https://www.gartner.com/smarterwithgartner/separate-Financial-Technology-noise-from-reality/>

- [5] Skinner CM (2015) What is “Financial Technology”? In: Chris Skin. Blog. <https://thefinanser.com/2015/01/ghgh.html/>
- [6] Buckley R, Arner D, Barberis J (2016) 150 Years of Financial Technology: An Evolutionary Analysis. JASSA - FINSIA J Appl Finance
- [7] Lee I, Shin YJ (2018) Financial Technology: Ecosystem, business models, investment decisions, and challenges. Bus Horiz 61:35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>
- [8] Arner DW, Barberis JN, Buckley RP (2015) The Evolution of Financial Technology: A New Post-Crisis Paradigm? SSRN Electron J. <https://doi.org/10.2139/ssrn.2676553>
- [9] Geere D (2011) How the first cable was laid across the Atlantic. In: Wired UK. <https://www.wired.co.uk/article/transatlantic-cables>
- [10] Steinwender C (2018) Real Effects of Information Frictions: When the States and the Kingdom Became United. Am Econ Rev 108:657–696. <https://doi.org/10.1257/aer.20150681>
- [11] Falguni Desai (2015) The Evolution Of Financial Technology. In: Forbes. <https://www.forbes.com/sites/falgunidesai/2015/12/13/the-evolution-of-Financial-Technology/>
- [12] The First Completely Online Bank. <https://www.smile.co.uk/about/history>
- [13] Okan Acar , Yusuf Ensar Çıtak Financial Technology Integration Process Suggestion for Banks ScienceDirect Procedia Computer Science 158 (2019) 971–978