Journal of Accounting and Finance
Volume 33, No. 1
October 2018-March 2019

Convergence of Finance & Technology: A Study on the Ascend of Fintech in India

Sajana.K.V

Abstract

Technology has been progressing and its influence on the banking and financial services sector in recent times is unchallenged. The depth and breadth of change being brought about by financial technology promises to redefine and reshape the sector as a whole. In today's world, there are huge number of financial transactions taking place every day. There are so many players in the market that its difficult to manage them. This is where Finance and Technology come together. Problems faced by finance are solved by technology and growth of technology is managed by finance. Thus, there is symbiotic growth of both finance and technology. One's growth leads to and is dependent on other's growth. Traditional Banks and Financial Institutions have viewed technology as an enabler to business propositions, rather than creating new business propositions themselves. Financial Technology (FinTech) Companies however are changing that role by leveraging digital technologies to create new business propositions and target new market segments which hitherto were not possible. FinTech in the truest sense is the application of technology to offer new financial products and services to new market segments in an economically viable manner. From a business model perspective, the FinTech sector is marked by technology companies that either intend to disintermediate or partner with incumbent Banks and Financial Institutions depending on strategic narrative and market landscape. Hence, FinTech is increasingly becoming an important focus area for all the key stakeholders in India's Financial Services industry - Regulators, Traditional Banks, NBFCs, Payment Banks, Investors, Payment Service Providers, Broking and Wealth Management Companies, Insurance providers and pure play FinTech players. The purpose of this paper is to analyze the Indian FinTech and its implications on the Indian Financial Services.

Keywords: *FinTech, Financial Services*

Introduction

Financial Technology or FinTech, is one of the biggest radical developments in the field of Finance in recent times. While the world has witnessed technological advancements for a long time now, FinTech emerged when the technologies were deployed in the area of financial services. The deployment was, however, not only to make the existing services more efficient, but to create new services and offerings as well (through innovation). The impact of such

Dr Sajana.K.V, Independent Researcher, Trivandrum, Kerala

innovation (in finance and other areas) was so substantial that Schwab (2016), the founder and executive chairman of World Economic Forum Geneva, believed this development have brought the Fourth Industrial Revolution. It is not wrong to state that no other sector has been impacted so radically by the advent of technology, as the Finance sector. Technology has been a key enabler in the growth of a digital economy. Over the years, Indian banks and financial services providers have gradually adopted technology to improve reach, customer service and operational effectiveness with evolving market and technological advances. However, the pace of technology adoption has not been commensurate with its potential and hence there have been gaps in the penetration of financial services. Tech firms offering solutions in the financial space, popularly called FinTechs, have evolved from being a disruptive threat to a major opportunity for financial institutions. As in several other countries, there has an exponential rise in the number of FinTech startups in India as well over the last 3 years with total investment in the sector crossing over USD 1.3 billion. The Indian FinTech software market alone is expected to touch $2.4 billion by 2020. The report adds that the transaction value for the Indian FinTech sector was approximately $33 billion in 2016 and slated to reach $73 billion in 2020 growing at a five-year compound annual growth rate (CAGR) of 22%. In India, most of the FinTech companies including the exponentially growing m-wallets have been complementing existing financial services providers, rather than completely disintermediating them. Traditionally, the Indian financial services sector is characterized by brick and mortar - branch banking, labor intensive banking services, manual and paper based processes with limited straight through processing-despite continuous investments in technology and systems by Indian Banks and Financial Services Institutions.

Objective of the Study

- To analyze the Indian FinTech and its implications on the Indian Financial Services.

Methodology of the Study

This paper is based upon secondary data collected from various websites, journals, magazines, newspapers and reference books.

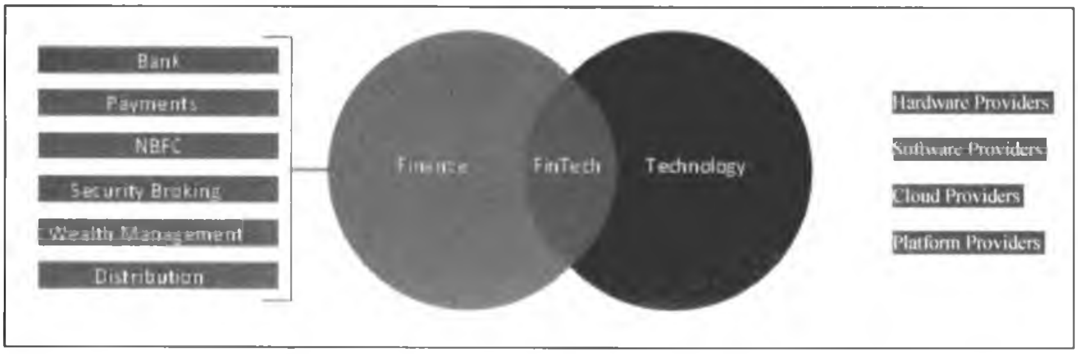
Rise of Fintechs

Information technology plays a huge role in financial services for many different reasons, but most importantly on the electronic networks that exchange information. The role of information technology in finance allows financial institutions to constantly attain new info at the same rate as their competition. Financial technology, often shortened to FinTech or fintech, is the new technology and innovation that aims to compete with traditional financial methods in the delivery of financial services. It is an emerging industry that uses technology to improve activities in finance. Even more important is the fact that Fintech has enabled individuals to use products and services at lower costs. For example, the transferring of international money used to be hugely expensive as the big banks controlled the market. FinTech (financial technology) is anywhere technology is applied in financial services or used to help companies manage the financial aspects of their business, including new software and applications, processes and business models. In the years since the crash of 2007-08, banks have concentrated on making finance secure and safe for all, making the right investments and pruning their balance sheets to an optimal level. The focus has been on meeting government regulations and getting the perfect combinations of lending and borrowing. A wave of tech-startups, called the Fintechs, now offer an opportunity for the traditional banks to integrate the best of technologies to their traditional financial offering to provide personalized and customized offerings to customers. Financial products which were perceived to be commoditized can now be tailored to customer's requirements. Banks have huge amounts of data such as those from their user's transactions- what, when and how they make purchases, the kind of investments they make etc, which can be parsed by technologies such Big Data and Analytics to reveal the users' interest in a particular product or how likely they are to repay a loan they might take. At a time when data is king, banks can invest in these technologies in-house or partner with FinTechs having similar strategic goals to offer differentiated product and thus gain an edge in the market.

FinTech

Financial technology often shortened to FinTech or fintech, is the new technology and innovation that aims to compete with traditional financial methods in the delivery of financial services. It is an emerging industry that uses technology to improve activities in finance. Fintech is used to describe new tech that seeks to improve and automate the delivery and use of financial services. At its core, fintech is utilized to help companies, business owners and consumers better manage their financial operations, processes and lives by utilizing specialized software and algorithms that are used on computers and, increasingly, smart phones. Fintech, the word, is a combination of "financial technology". When fintech emerged in the 21st Century, the term was initially applied to technology employed at the back-end systems of established financial institutions. Since then, however, there has been a shift to more consumer-oriented services and therefore a more consumer-oriented definition. Fintech has expanded to include any technological innovation in - and automation of - the financial sector, including advances in financial literacy, advice and education, as well as streamlining of wealth management, lending and borrowing, retail banking, fundraising, money transfers/payments, investment management and more. Fintech also includes the development and use of crypto-currencies such as bitcoin. That segment of fintech may see the most headlines, the big money still lies in the traditional global banking industry and its multi-trillion-dollar market capitalization.

Figure.1 FinTech - Convergence of Financial services and Technology



Source: Deloitte Internal Analysis

The immense potential of this sector is clearly apparent in the global FinTech funding scenario. With more than $17 Bn funding and over 1400 deals in 2016, Fintech is one of the most promising sectors globally. With nearly $270 Mn funding in 2016, India is ranked amongst the top ten FinTech markets globally.

Indian FinTech Segments

The history of FinTech is littered with technological innovations in the area of finance, financial inclusion and services in the developed and developing economies around the globe. During the last decade FinTech has developed at a steady pace and the emergence of new players in the form of Startups, MSMEs and Payment Banks has thrown a challenge to the traditional banks and other financial services' companies. In the Indian context, FinTech can be broadly aligned across the following twenty segments, across six broad financial services areas.

Figure:2 Indian FinTech segments

	Areas	*FinTech Segments*	*Brief Description*
A	Credit	Peer-to-Peer Lending Crowd Funding Market Place for Loans Online Lenders - on-book lending by NBFCs Credit Scoring Platforms	All forms of lending market places including Peer-to-Peer lenders and market places that connect borrowers with both, institutional and lenerders. Also includes crowd funding and equity funding platforms. NBFCs that use alternative scoring and digital channels for acquisition
B	Payments	M-wallets and PPIs Merchant Payments and PoS Services International Remittance Crypto Currencies	Services that enable transfer of funds for various use cases P2P (Person-to-Person), P2M (Person-to-Merchant), G2P (Government-to-Person) etc Services targeted at both Payees and Merchants by enabling requisite payment infrastructure through mobile or other technologies
C	Investment Manag-ement	Robo Advisors Discount Brokers Online Financial Advisors	Wealth advisory services delivered through technology governed rules and investment strategies
D	Personal Finance Manag-ement	Tax Filling and Processing Credit Scoring Services	Tools and services for active management of individual financial profiles (e.g. spend investments, credit profile, etc.) Spend Management and Financial Planning
E	Bank tech	Big Data Block chain Customer On boarding Platforms	Services that utilize many data points such as financial transactions, spending patterns to build the risk profile of the customer. This provides an alternate to traditional underwriting methods that are unable to serve people with limited credit data. There is significant value in unstructured data. However, it is difficult to derive value from unstructured data, owing to challenges in analyzing it. A number of new tools are being developed to derive value from large data sets.
F	InsurTech	Insurance Aggregator IOT, Wearables and Kinematics	Small business insurance Usage based insurance

Source: Deloitte Analysis

Indian FinTech Scenario

India remains one of the largest markets where the structural enablers to setup and incubate FinTech companies have come together strongly. The following seven factors are likely to drive the growth of the Indian FinTech sector, in the medium to long term:

- **Combination of Steady Economic Growth with Low Penetration of Financial Services:**

  India's GDP is expected to grow at 6-8%2 for the next decade, thus driving income and consumption levels of households as well as businesses. Coupled with low penetration of household credit in tier 2 and 3 cities, mortgage, investment and asset management services, the banking and financial services market is likely to grow at 2-2.5 times of real GDP growth, thus sustaining both incumbents and new FinTech entrants. Further, improvement in digital infrastructure (E.g. internet and smart phone penetration) outside urban and metro centres will drive adoption of digital financial services

- **Large Public Sector Banks and Insurers Lagging Market Growth:**

  On an aggregate basis, Public sector banks and insurance firms are gradually but continuously losing market share to private banks and insurers respectively, due to their inability to outgrow the market. Notwithstanding this steady loss, Public sector banks still account for 70% market share of deposits and credit. Going forward, new private sector banks, including new differentiated banks are likely to be the beneficiaries of emerging market opportunities. Along with the differentiated banks, emerging FinTech players in the areas of payments, lending and investment management will also benefit from low penetration and focus on niche areas.

- **Regulatory Forbearance Toward FinTech:**

  Indian regulatory authorities including RBI, SEBI and IRDA have adopted an accommodative stance toward an emerging FinTech sector, without bringing in prohibitive guidelines to over regulate the sector. Despite catching up with the rapidly evolving eco system, Indian regulators have adopted a consultative approach and have been proactively foreseeing the need for adequate regulations, especially in the areas concerning public funds i.e. peer-to-peer lending, crowd sourcing and alternative currencies.

- **Indian Millennials Rapidly Ascending the Adoption S-curve of Digital Financial Services and Thus Perceiving Higher Friction from Incumbents:**

  With nearly 440 Mn Millennials, India has one of the youngest populations that is becoming productive and will drive consumption and household savings. Moreover, this age cohort is increasingly adopting digital channels to initiate product search, make inquiries, undertake online fulfillment and finally, make payments through digital channels. This segment is likely to perceive higher friction in the services offered, particularly by public sector banks and insurers, and hence, will gravitate towards new platforms.

- **India Stack and Internet Data Proliferation to Improve Financial Services Utility Infrastructure and Connectivity to Support Digital Financial Services:**

  India Stack is a set of Application Programming Interfaces (APIs) that allows FinTech companies, developers and governments to utilize India's unique digital Infrastructure towards presence-less, paperless, and cashless financial service delivery. Although India stack, powered by Jan Dhan, Aadhaar & Mobile trinity, can enable incumbent banks and financial service providers, but its true power is harnessed by FinTech Companies in significantly reducing costs of acquisition and servicing. UPI can be a game changer, as it has mass appeal, owing to its universal acceptance and security features. Aadhaar, which now extends to ~1.1 Bn Indians can be levied for effective biometric authentication of financial transactions. It is proving to be an optimal digital identity, and it gives users the ability to securely utilize their biometrics, when undertaking financial transactions.

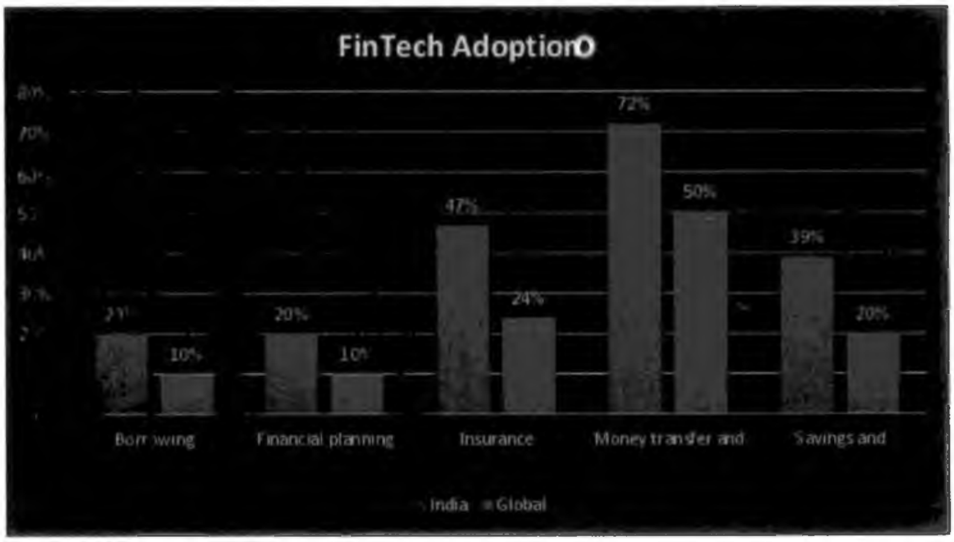
- **Advances in Technology and Adoption of Cloud Services Leading to Asset Light Models with Almost Zero Unit Costs at Transaction Levels Could Enable Subsidization Without Building Scale:**

  A key barrier to entry in traditional financial services, FinTech companies will also pass on the benefits of lower transaction costs to end users, thus improving their propositions. This aspect further gets accentuated by the legacy free environment in which most FinTech companies operate, thus relying on cloud based services to align their overall cost structures.

- **Lower Real Interest Rates in Indian Economy:**

  With real interest rates remaining low (OECD estimates, long term interest rate forecasts of 6.8% pa, 2018), avenues to introduce new asset classes through P2P platforms, low cost money market funds, investment management and robo advisory services, are likely to gain acceptance from urban and financially savvy investors.

Figure: 3 Adoption of Fintech by Digitally Active Consumers



(Source: EY the Battle for the Indian Consumer)

While FinTech seems to have a promising future ahead for the world as a whole, it should be especially true for India with the nation jumping 23 notches ahead in the latest World Bank's Ease of Doing Business Index (The Economic Times, 2018). While Finance as a domain has existed for long, FinTech can be seen as a new tint of glasses to see the age-old world of Finance.

Business Models

With technology companies rising to prominence within the financial industry, various business models are possible. Banks have to make the conscious decision of whether to consider fintechs as competitors or partners. In one of the plausible business models, banks will retain the customer interface and continue as the main point of interaction with consumers. These banks can offer products/services in segment where they lack capability- e.g. personal finance from third party providers such as Fintechs. Customers benefit from choice and product/ price transparency. Banks can generate fee based revenues from Fintechs for using their interface and can monetize access to bank's customer data. In yet another plausible model, banks can compete using the strength of its products to gain access to customers through Fintech platforms. In such a scenario, products will be exposed to high competition and the banks will have to pay to access third party platforms. Banks that offer niche products can continue as they are to offer highly differentiated products. The need for a partnership with Fintechs will be less in such a case.

Conclusion

In the Indian context, both banks and alternate lending platforms will continue to co-exist and serve different segments in the market. FinTech is not likely to disintermediate banks, and will rather grow by partnering with the incumbent financial institutions to develop extended ecosystems. Banks in turn, will improve their underwriting and servicing capabilities, digital channels and back-office automation. In addition to P2P Lending and Market Place lending, a few FinTech companies also offer credit risk assessment and underwriting as a service to banks and NBFCs. Fintech companies can also learn and adopt best practices around risk and internal controls, operational excellence, compliance culture and employee engagement, that has stood the test of time for most the banks, and financial services providers in India. Indian FinTech companies could address a few of the critical structural issues afflicting Indian financial services - increase outreach, improve customer experience, reduce operational friction and foster adoption and usage of the digital channel. Legacy prone processes and higher operating cost models of incumbent banks and financial service providers will give digital FinTech companies an edge, as banks play catch-up with these more nimble and innovative start-ups. The opportunity for FinTech lies in expanding the market, shaping customer behavior, and effecting long term changes in the financial industry. Indian FinTech companies have the potential to reshape the financial services landscape in three ways:

- The FinTech startups are likely to reduce costs and improve quality of financial services. Not being burdened with legacy operations, IT systems, and expensive physical networks, benefits of leaner operating models can be passed on to customers.
- The FinTech industry will develop unique and innovative models of assessing risks. Leveraging big data, machine learning, and alternative data to underwrite credit and develop credit scores for customers with limited credit history, will improve the penetration of financial services in India.
- FinTech will create a more diverse, secured and stable financial services landscape. FinTech

companies are less homogenous than incumbent banks, and offer great learning templates to improve, both, capabilities and culture.

References

https://www.salesforce.com/blog/2017/08/fintechs-revolution-evolution.html

https://seekingalpha.com/article/4112678-big-banks-will-win-fintech-revolution

http://www.rocketspace.com/corporate-innovation/financial-institutions-eager-to-buy-invest-in-fintech-startups

Deloitte Internal Report

World Economic Forum Report - The future of Financial Services

Chicago Booth: Future of Financial Services Initiative

RBI - https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home

RBI - Applications of Block Chain Technology

https://knoema.com/xxnxggb/india-gdp-growth-forecast-2015-2020-and-up-to-2060-data-and-charts

http://timesofindia.indiatimes.com/companies/rbis-mobile-wallet-interoperability-faces-a-few-hurdles/articleshow/57691058.cms

https://www.princeton.edu/~ota/disk3/1984/8411/841108.PDF

https://www.mbaskool.com/business-articles/finance/17633-financial-transactions-a-the-growing-role-of-technology.html

https://www.mbaskool.com/business-articles/operations/17596-rise-of-fintech-convergence-of-finance-a-technology.html

https://thefinancialbrand.com/77228/technology-trends-disrupting-financial-services-banking-future/

Hassan Ghaziri, Graduate School of Business and Management, American University of Beirut, 1998

http://ddc.aub.edu.lb/projects/business/it-banking.html

https://www2.deloitte.com/content/dam/Deloitte/in/Documents/financial-services/in-fs-fintech-india-ready-for-breakout-noexp.pdf

http://nifm.ac.in/sites/default/files/E-Compendium.pdf

https://www.ey.com/in/en/industries/financial-services/banking---capital-markets/ey-the-battle-for-the-indian-consumer