



A Tri-Annual Publication

RESEARCH SPECTRA

Print ISSN: 2394 - 9805

Online ISSN: 2455 - 0256

An International Multidisciplinary Peer-Reviewed / Refereed Journal

Print ISSN: 2394-9805

Online ISSN: 2455-0256

Volume - V, Issue No. 1-2
(January - August, 2024)

Copyright © Research Spectra

Paper Code

No. - RSV0511-217

Dr Saurabh Sen

Principal, Sunbeam College
for Women, Bhagwanpur

Dr Ruchi Sen

Associate Prof, Sunbeam
College for Women,
Bhagwanpur

Fintech- The Digital Transformation of Financial Services in Indian Scenario

Dr Saurabh Sen

Principal, Sunbeam College for Women, Bhagwanpur

Dr Ruchi Sen

Associate Prof, Sunbeam College for Women, Bhagwanpur

Abstract

Technology has evolved over time. Now it is not limited to computerization rather has taken a vast leap towards new world of FinTech, Internet of Things and Artificial Intelligence. FinTech is the new era of financial services. It is gaining importance across the globe. Different countries are making significant efforts to build a strong environment for FinTech. FinTech is also considered a digital boon which can establish connections between nations and regions and bring a dynamic change in the work culture. It has grown over the years. According to a report by a US based payment systems company, digital payments in India are set to account for 71.7 percent of the total payments volume by 2025. This is going to be a big change for the Indian economy which relies more on cash transactions. Thus, the paper shall highlight about FinTech, adopting it in day-to-day life, its challenges and opportunities.

Keywords: *FinTech, Digital payments, challenges and opportunities of FinTech.*

Introduction

FinTech is gaining importance across the globe. Different countries are making significant efforts to build a strong environment for FinTech. Let's understand what is FinTech? FinTech is a term which originally can be traced during the period 1900s but it attracted the attention of investors, regulators and consumers during 2014. It means "Financial technology" which is used by the companies/financial institutions for providing financial services. The non-banking financial sector also adds up over and above the traditional banking sector as it also facilitates mobilization of savings, generating funds for establishing new ventures, enhancing the flow of funds, contributing in economic growth of the country etc. FinTech is also considered a digital boon which can establish connections between nations and regions and bring a dynamic change in the work culture. Few such revolutionary examples which can be quoted here are establishment of first ATM by Barclays, Launch of primary digital money Bitcoin in 2009, commencement of Google wallet in 2011 etc. In addition to the above, the new start-ups are also replacing the traditional transaction system with new and innovative methods and means, for example mobile payments, money transfers, digital wallets, investments, digital currencies, crowdfunding and so on. According to a report by a US based payment systems company, digital payments in India are set to account for 71.7 percent of the total payments volume by 2025. This is going to be a big change for the Indian economy which relies more on cash transactions. Thus, the paper shall highlight about FinTech, adopting it in day-to-day life, its challenges and opportunities.

Literature Review

1. Fintech Issues and challenges in India, P Krishna Priya, K. Anuja, International Journal of Recent Technology and Engineering (IRJTE) ISSN 2277-3878, Vol 8, Issue-3, Sept 2019, Pg 904-908.
2. Fintech in Banks: Opportunities and Challenges, in book Innovation strategies for implementing FinTech in Banking (pp 100-109), IGI-Global,

August 2020, Rabab Ebrahim, Sumanthi Kumaraswamy and Yomna Abdulla

3. FinTech in India- Opportunities and Challenges, C.Vijai, SAARJ Journal on Banking and Insurance Research, Vol 8, Issue1, January 2019, ISSN:2319-1422
4. Analytical study of FinTech in India Pre and Post Pandemic COVID 19, Sumeet Gupta and Adarsh Agrawal, Indian Journal of Economics and Business, Vol 20 No 3, December 2021

Fintech in India:

Indian market saw the emergence of fintech during the period 1980s when banks started experimenting online mode. The ICICI bank was the first bank to enter Internet banking though with limited banking services and Central bank of India was the first to launch credit card. India is evolving as one of the fastest growing fintech market and is leaving behind China in Fintech deals. The two major cosmopolitan cities that is Bengaluru and Mumbai leads the fintech momentum, 42% of the startups are headquartered in these cities. According to India Finch Report 2020 by Medici, between 2010 to 2015, India saw 1216 new fintech startups. However, the growth was tremendous and India is now among the fastest growing country in the world which had 6636 fintech startups till March 2021. The Indian FinTech industry market size is now estimated to be \$150 Bn by 2025. As of March, 2022 India's UPI (Unified Payments Interface) has seen participation of 313 banks and has recorded 5.4 Bn monthly transactions. As of April 2022, India has 16 FinTech companies, which have gained 'Unicorn status' with a valuation of over \$1Bn. India has seen tremendous growth on the Digital Payments front, clocking a monthly volume of over 5.7 BN transactions worth \$2 TN (Total Digital Payments) in September'21. India is home to the highest number of real-time online transactions with 25.5 Bn real time payments transactions in 2020, and is ahead of US, UK and China combined¹.

Table 1: The rise of India's Digital Economy (Internet Subscribers in Millions)

Year	Rural	Urban	Total
2014	92	175	267
2015	112	220	332
2016	115	276	391
2017	132	314	446
2018	213	391	604
2019	268	450	718
2020	323	503	826

Source: TRAI, Statista, APP Annie

From **Table 1** it can be stated that there is high rise in India's Digital Economy and the Internet subscribers (both rural and urban population) have surged over the years. Total number of Internet subscribers in India as of Sept 2021 has increased to more than 834 million, out of which 337 million subscribers belong to rural India. The pandemic (COVID-19) has played a significant role in increasing the internet subscribers in rural India especially female users. A study was conducted by Dolly Jha, managing director at Nielsen India stated that one in every 3 females in rural India is active internet user. This means India has huge potential in utilizing the online financial services which can be progressive. If Indians make maximum use of online Fintech services, then not only their time but also, they can take advantage of maximum financial services. This can be verified from the below Table.

Table 2: Increase in Digital Payments and Wallets

	Volume of digital payments in India	Total volume of UPI transactions
2020-21	5554 Crore	41.03 lakh crore
2021-22	7422Crore	83 lakh crore

Source: NPCI (National Payments Corporation of India)

If we focus on digital payments across India, it can be seen from **Table 2** that there is an increase in digital payments and wallets. According to a report published in Statista by Sandhya Keelery on Apr 26th, 2022, “Volume of digital payments India FY 2018-2021”, In financial year 2021, around 44 billion digital payments were recorded across India. This was an increase as compared to the previous couple of years. However, The Ministry of Electronics and IT stated that the volume of digital payments in India has increased by 33 percent during the financial year 2021-22. A total of 7,422 crore digital payment transactions were recorded during this period which was 5,554 crore in FY 2020-21. According to NPCI (National Payments Corporation of India) the total volume of UPI transactions in February 2021, 229 crore of UPI transactions were made.² The use of digital payment platforms and applications have tremendously increased especially when the pandemic hit the country which forced people to stay indoors and transact online.

Table 3: Payment System Indicators – Annual Turnover (April-March)

Item	Volume (Lakh)			Value (₹ Crore)		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
1	2	3	4	5	6	7
A. Settlement Systems						
CCIL Operated Systems	36	36	28	11,65,51,038	13,41,50,192	16,19,43,141
B. Payment Systems						
1. Large Value Credit Transfers – RTGS	1,366	1,507	1,592	13,56,88,187	13,11,56,475	10,55,99,849
Retail Segment						
2. Credit Transfers	1,18,481	2,06,506	3,17,852	2,60,90,471	2,85,62,857	3,35,22,150
2.1 AePS (Fund Transfers)	11	10	11	501	469	623
2.2 APBS	14,949	16,766	14,373	86,226	99,179	1,12,747
2.3 ECS Cr	54	18	0	13,235	5,145	0
2.4 IMPS	17,529	25,792	32,783	15,90,257	23,37,541	29,41,500

2.5 NACH Cr	8,834	11,290	16,450	7,29,673	10,43,212	12,32,714
2.6 NEFT	23,189	27,445	30,928	2,27,93,608	2,29,45,580	2,51,30,910
2.7 UPI	53,915	1,25,186	2,23,307	8,76,971	21,31,730	41,03,658
3. Debit Transfers and Direct Debits	4,914	7,525	10,456	5,24,556	7,19,708	8,72,552
3.1 BHIM Aadhaar Pay	68	91	161	815	1,303	2,580
3.2 ECS Dr	9	1	0	1,260	39	0
3.3 NACH Dr	4,830	7,340	9,630	5,22,461	7,18,166	8,68,906
3.4 NETC (Linked to Bank Account)	6	93	650	20	200	913
4. Card Payments	61,769	72,384	57,841	11,96,888	14,34,814	12,93,822
4.1 Credit Cards	17,626	21,773	17,641	6,03,413	7,30,895	6,30,414
4.2 Debit Cards	44,143	50,611	40,200	5,93,475	7,03,920	6,62,667
5. Prepaid Payment Instruments	46,072	53,318	49,392	2,13,323	2,15,558	1,97,695
6. Paper-based Instruments	11,238	10,414	6,704	82,46,065	78,24,822	56,27,189
Total – Retail Payments (2+3+4+5+6)	2,42,473	3,50,147	4,42,229	3,62,71,303	3,87,57,759	4,15,12,514
Total Payments (1+2+3+4+5+6)	2,43,839	3,51,654	4,43,821	17,19,59,490	16,99,14,234	1471,12,363
Total Digital Payments (1+2+3+4+5)	2,32,602	3,41,240	4,37,118	16,37,13,425	16,20,89,413	14,14,85,173
<p>Note: 1. RTGS system includes customer and inter-bank transactions only.</p> <p>2. Settlements of CBLO, government securities and forex transactions are through the Clearing Corporation of India Ltd. (CCIL). Government Securities include outright trades and both legs of repo transactions and triparty repo transactions. With effect from November 5, 2018, CCIL discontinued CBLO and operationalised triparty repo under securities segment.</p> <p>3. The figures for cards are for payment transactions at point of sale (PoS) terminals and online.</p> <p>4. Figures in the columns might not add up to the total due to rounding off of numbers.</p> <p>Source: RBI.</p>						

As per **Table 3**, it can be elucidated that India's payment infrastructure has registered a substantial improvement especially in terms of card payments, online transactions and transfers, usage of various payment mechanisms and

interfaces such as BHIM, UPI, IMPS etc. Major role in this context has been played by the RBI. The RBI has encouraged to use various mediums and interfaces and thus trying to make the economy a cashless economy.

"Digital payments have become a way of life in India and we have seen 10-15 million new customers coming on to the digital bandwagon over the last 12 months. Two factors that led to this change were demonetization and Covid-19 pandemic. There is a massively complex ecosystem at the backend but the reimagining at the backend has led to fantastic experience for the customers, triggering a massive adoption," says Hemant Gala, VP - Financial Services and Payments at PhonePe

Dimensions of Fintech

Fintech is expanding from traditional services to innovative services. It is also providing loans/credit to MSMEs, customers and various other segments so as to expand their businesses and living. The recent developments which can be highlighted are as follows:

1. PayTech (Payment Technology): This technology facilitates various services such as Payment gateways, Wallets, Bill payment, QR code, POS (Point of Sale) etc. The customers can take advantage of these services and interfaces to make online payments hassle free.
2. LendTech (Lending Technology): This technology has immense horizon which facilitates the customers in availing Buy now Pay Later, marketing and insurance services and peer to peer lending etc.
3. InsurTech (Insurance Technology): This application provides insurance services and opens up new avenues for insurers and insured. This technological innovation improves the efficiency of the insurance industry. Who does not know the giant name of Policy Bazaar dominating the Insurtech?
4. WealthTech (Wealth Technology): The wealth technology sector in India is growing robustly. More than 300 start-ups have come up in India in

various fields such as brokerage, management and investment platforms, asset management, portfolio management etc.

5. RegTech (Regulatory Technology): Indian financial sector regulators have also risen to the challenge and are transforming their practices through technology called 'RegTech. For Example, India's Telecom regulator TRAI (Telecom Regulatory Authority of India), has put an end to the nuisance of spam calls through a blockchain technology solution. In addition to the above example, RegTech is also managing the processes of financial industries. But the biggest disadvantage to all such technological innovations is breaches, money laundering, cyber-attacks and fraudulent activities³.

Scope and Opportunities in FinTech

After demonetization, various cashless technologies emerged which made transactions easy and convenient. A study also revealed that PayTM saw 435 percent of more traffic to its website and application. It also led to emergence of various other platforms like phonePe, MobiKwik, Google Pay, RazerPay, PayPal, Bharat Pay, BHIM, etc. Thus, India's financial technology sector is growing rapidly and is making available every financial service on digital platform. The key services offered on digital platforms includes:

Peer-to-Peer (P2P) Lending Services: This is an easier and convenient way to access capital to consumers and businesses. P2P lending match lenders with potential borrowers through online platforms.

Payment Services: Payment service providers are also known as merchant service providers that helps merchants accept payments through debit cards and credit cards. The transfers are made directly to the bank account linked to the payee. For example, PayTm, MobiKwik, BillDesk etc.

Remittance Services: These services allow users to transfer money national and abroad. Under this, there is a tie-up between money transfer companies abroad

and agents in India who disburse funds to beneficiaries in India at ongoing exchange rates. For example, Western Union money transfer, MoneyGram etc.

Personal Finance or Retail Investment Services: Personal finance covers not only money but also savings and investments. It provides services like banking, budgeting, insurance, investments etc. Fintech companies are growing to provide financial information and services to individuals that is saving and investing one's funds and finances as per the requirements.

Equity Funding Services: Equity funding refers to raising funds online from large number of people. The biggest development in this area is crowdfunding which had its inception in 1997. Crowdfunding is gaining popularity to secure funds online easily and conveniently. The start-ups gaining popularity are Ketto, Milaap, Wishberry, ImpactGuru etc.

Cryptocurrency: It is a digital currency which uses encrypted algorithm. Indian markets are more conservative markets which uses more of cash and bitcoin has not seen much impact as compared to international markets.

Challenges of FinTech

1. As we can see the popularity of FinTech is increasing with the passage of time, there is a huge risk of compromising with the privacy and security of the customers' data.
2. One fact which should be brought into light is FinTech companies provide loans not from the deposits but from the debt and equity. Thus, such credit could be more volatile and may lack standard credit guidelines.
3. The other challenge that can be faced in context to FinTech is internet. The access to internet is still highly based on affluent segment, male counterparts and urban population etc. Also, users hesitate to make online payments as they believe it to be risky and prefer cash on delivery. Despite high penetration of mobile-data and smartphones, use for financial transactions is low due to behavioral reasons like lack of trust, lack of

applied knowledge in using digital payment modes and perceived security threats (IFMR, 2017).

4. Another challenge is Consumer Protection which needs to be taken care of. This can be handled through provisions/mechanisms to register grievances of the customers.
5. One more challenge is Digital Literacy. In India, people lack digital literacy especially in Rural and Semi-Urban areas. It is importance to integrate digital literacy into financial literacy along with digital hygiene. People in India prefer Cash on Delivery rather than digital payments which definitely requires more cash to hold/hoard. In China, street vendors, buskers, and even beggars accept electronic payments (Jenkins, 2018).
6. The Report of the Working Group on FinTech and Digital Banking (RBI, 2018a) cautions that regulators should neither overprotect incumbents, nor unduly favour newcomers by applying differential regulatory treatment. With increasing dominance of big firms in digital payments, there will emerge a tradeoff between data-fueled oligopoly for cheap services and the need for re-aligning incentives to foster smaller, more innovative firms for a competitive ecosystem. However, to follow the principle of neutrality, “authorities may have to contend with stricter treatment for certain types of activity, such as where a claim on the platform’s balance sheet is generated or where retail investors and consumers are involved” (Claessens et al., 2018).

References

- Invest India report 2022, National investment promotion and facilitation agency.
- <https://www.livemint.com>, e-Paper, 25 May, 2022
- RegTech and the Evolution of Regulatory Functions: The Case of the Reserve Bank of India, Dakshina Chandra, Apr 30
- Ministry of Finance, Government of India, (2019), “Report of the Steering Committee on Fintech Related Issues”

- Das, S. (2019), “Opportunities and Challenges of FinTech”, Keynote Address Delivered at the NITI Aayog’s FinTech Conclave, March 25
- Claessens, S., Frost, J., Turner, G., Zhu, F., (2018), “FinTech Credit Markets across the World: Size, Drivers and Policy Issues”, BIS Quarterly Review, September.

