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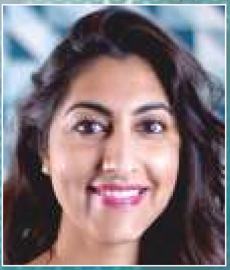
World Consumer Rights Day
15th March 2022
#fairdigitalfinance

RESEARCH FEATURE
Financial Services for All – The Indian Reality!

OUT OF THE BOX
Digital Finance Revolutionising Delivery of Government Interventions

INTERVIEW



Luvleen Sidhu
CEO and Founder,
BM Technologies, Inc.

Protecting Consumers in Navigating the World Of Digital Finance

PLUS ROUND UP • MY MARKET • THE PRESCRIPTION

NABL

NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES

Accreditation Body (AB) grants accreditation for the competence of CAB for specific Conformity Assessment Activites

NABL

AB are not involved in CAB activities and are third party to manufacturer and CAB

Quality Control (QC) of Manufacturer is usually a first party

LAB

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Conformity Assessment Bodies (CAB) independently verify the compliance of the product to requirements usually as per accepted international standards

CABs are not involved in manufacturing and are usually a third party to manufacturer

NABL as an accreditation body complies to ISO/IEC 17011 and is a full member (signatory) to APAC and ILAC MRA NABL provides impartial, third party accreditation services to CABs	NABL provides accreditation to Conformity Assessment Bodies (CABs) CABs are • Testing and Calibration laboratories in accordance with ISO/IEC 17025 • Medical testing laboratories in accordance with ISO 15189 • Proficiency Testing Providers in accordance with ISO/IEC 17043 • Reference Material Producers in accordance with ISO 17034

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VIEW POINT

MESSAGE FROM PUBLISHER & EDITOR

Persevering for Fair Digital Finance this World Consumer Rights Day

"Consumers include us all. They are the largest economic group, affecting and affected by almost every public and private economic decision. Yet they are the only important group... whose views are often not heard."

IT WAS 60 years ago, on 15th March, 1962, when then US President, John F. Kennedy became the first world leader to articulate the crucial concept of consumer rights in his historic address to the Congress.

Since 1983, the consumer movement is observing this momentous date as the World Consumer Rights Day to raise global awareness about consumer rights and needs. It is marked by demands that the rights of all consumers should be respected and protected while protesting against market abuses and social injustices which undermine these rights.

This year, the global advocacy of consumer rights, protection and empowerment is calling for #FairDigitalFinance, i.e., digital finance that is inclusive, safe, data protected, private and sustainable.

Indeed, it has become commonplace to spend, send and save money using digital technology. More and more people are paying bills, transferring money, receiving payments and accessing bank statements through a computer or smartphone. This has heralded increased choice and convenience.

We are on the verge of an almost cashless economy today; but are we not turning a blind eye to the ubiquitous costs? A number of risks are emerging to the consumers' detriment, like data security, privacy and cybercrime. Unfortunately, the regulatory environment is not able to keep pace with the expounding growth in financial technology, leading to glaring gaps in regulation. Not to mention that many people are still being left out of the digital finance arena…..

There is a pressing need for innovative consumer protection mechanisms within the digital financial services space to safeguard the interests of the consumers. Therefore, this World Consumer Rights Day, we call on the world to harness the opportunities of digital financial services with appropriate regulation and supervision, so as to enable a better digital financial world for everyone!

Prof. Bejon Kumar Misra
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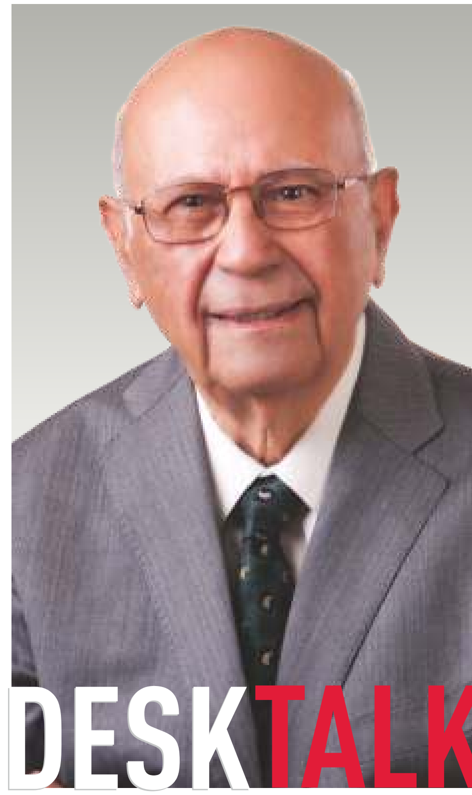
Editorial Board Member



WHAT FAIR FINANCIAL SERVICES SHOULD LOOK LIKE IN A DIGITAL WORLD

DESKTALK

HARK BACK A decade ago, and you will recall Rs. 100, Rs. 500 and Rs. 1000 notes changing hands at lightning speed as people bought and sold goods in the market. Cut to today, when the consumer is just as likely to whip out his mobile phone to pay even a vegetable vendor on the roadside!

Digital wallets, UPI IDs and mobile money are the name of the game. All it takes is a couple of taps on the touchscreen to send payments, settle invoices and transfer funds to anyone anywhere. The COVID-19 pandemic has further spurred the use of digital payments as people prefer this contactless option to protect themselves from the virus.

Dubbed as fintech, digital technologies that deliver financial services have seeped into lending, insurance and wealth management as well. This kind of proliferation can hail enormous benefits for the world - as noted in the Bali Fintech Agenda launched in October 2018 by the World Bank Group and International Monetary Fund, fintech can support economic growth and poverty reduction by strengthening financial development, inclusion and efficiency.

But the question that is looming large is - Is the fintech that is reshaping the financial sector really fair? Delve deeper and it becomes obvious that the rapidly evolving and complex nature of digital financial services is opening up varied consumer protection issues – from lack of proper disclosure, unscrupulous fees and poor customer recourse to platform unreliability, data breaches and cyber frauds - which can lead to both provider mistrust and over-indebtedness. Throw lack of proper financial inclusion into the mix and the trouble intensifies even further…..

It is evident that consumers need to be protected as they navigate this largely unknown and increasingly complicated landscape of finance technology. The digital era calls for oversight in the form of anti-trust rules, data mobility requirements, data protection laws, etc. accompanied by effective enforcement to ensure adequate consumer protection.

INSIDE

THE AWARE CONSUMER MARCH 2022

REGULARS

03 | VIEWPOINT
07 | ROUNDUP
37 | AFTERWORD

15
RESEARCH FEATURE

FINANCIAL SERVICES FOR ALL – THE INDIAN REALITY!

The fintech sector is at the forefront of India's financial inclusion triumphs. While India has made gigantic strides in its digital financial inclusion journey, a significant portion of the population still remains unbanked.

26
HORIZON

WILL WE GET THE DIGITAL HYGIENE WE NEED?

The next generation financial services are a boon that is simplifying trade and commerce on all levels while making daily life exceptionally easy for the consumers.

34
INTERVIEW

LUVLEEN SIDHU
CEO AND FOUNDER OF
BM TECHNOLOGIES, INC.

40
MY MARKET

STACKING UP DIGITAL ACCESS TO FINANCE – THE INDIA STACK WAY!

India has become a fintech pioneer, courtesy the revolutionary India Stack, which has set the stage for the digitisation of the entire country.

45
OUT OF THE BOX

DIGITAL FINANCE REVOLUTIONISING DELIVERY OF GOVERNMENT INTERVENTIONS

Digital technology is not only changing the face of financial services in the country, the benefits are even being exploited by the government for its various welfare schemes.

48
IN FOCUS

NEED TO RETHINK RULES OF THE DIGITAL LENDING GAME

Ethical conduct, reasonable selling practices and secure treatment of customer's information remains crucial in the fintech arena as well.

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NIRMALA SITHARAMAN
MINISTER OF FINANCE AND CORPORATE AFFAIRS

"Introduction of Central Bank Digital Currency (CBDC) will give a big boost to the digital economy. Digital currency will also lead to a more efficient and cheaper currency management system. It is, therefore, proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting 2022-23"

ROUNDUP

Fair Digital Finance Summit (14-18 March 2022)

DATA BRIEFING

39%

of companies are making fintech adoption a high priority, highlighting the worldwide demand for a more innovative financial landscape

– *JDSpura, 2020*

CONSUMERS INTERNATIONAL
COMING TOGETHER FOR CHANGE

CONSUMERS INTERNATIONAL - THE global membership organisation for consumer rights groups with over 200 member organisations in more than 100 countries – is gearing to champion the cause of fair digital finance for consumers on the World Consumer Rights Day, 2022. The motive is to generate new consumer-centred insights and campaigns for digital finance.

Digital financial services are driving significant changes across the world with financial technology becoming a key enabler for consumers of financial services in an increasingly cashless society. However, Consumers International is observing that these same digital financial services are also creating new risks, apart from exacerbating the traditional ones. The fallout is that this can lead to unfair outcomes for consumers, with the most vulnerable paying the heaviest costs.

Achieving fair digital finance for all requires a global, collaborative and coordinated approach. There is a pressing need for innovative regulatory approaches and digital financial services/products that are centred on consumer protection and empowerment.

It has become crucial now for all the stakeholders to work together to understand what fair financial services should look like in a digital world, and what role consumer-centred financial services can play in global challenges like sustainability.

Accordingly, Consumers International will be hosting a week-long 'Fair Digital Finance Summit' from 14th to 18th of March, 2022. The Summit will spark the first-ever global conversation around consumer-centred solutions in digital financial services by bringing together diverse voices of consumer advocates and key marketplace actors in digital financial services to accelerate change. This global event will showcase the work, perspectives and ideas of consumer advocates around the world.

The Summit will kick-off with the 'Consumer Vision for Fair Digital Finance' that will offer insights from leaders in the consumer movement on what actions are needed to ensure fair digital finance that is inclusive, safe, data protected and private, and sustainable for consumers everywhere. The events following throughout the week will be in the form of consumer-centred design sprints and incubators, high-level leadership dialogues and multi-stakeholder workshops with representation from governments, business, academia and civil society.

Therefore, in today's rapidly changing marketplace, this World Consumer Rights Day is poised to make the case for fair digital finance solutions that put consumer rights at the core of meaningful and long-lasting change. ◗

The 2021 report by Consumers International and CGAP on 'The Role of Consumer Organisations to Support Consumers of Financial Services in Low and Middle Income Countries' describes the unique role consumer advocacy plays to ensure financial service marketplaces are safe, fair and sustainable for consumers, with approaches that are varied, relevant for the regional context and effective. It further upholds that as we build back in a post-pandemic world, it is consumer organisations that will help shape sustainable digital finance, drive agile governance and support the design of truly consumer-centred business models.

"This is a global phenomenon……our members are already doing a lot of work to fill the gap between how the marketplace should be fair, safe and sustainable and where it is now."

– Helena Leurent, Director General, Consumers International

BANKING AND PAYMENTS are one of the fastest-growing areas of mobile use – we are using our phones for everything from opening a bank account and reviewing our transactions to making purchases, transferring money and even paying our taxes. However, can we be sure that these payments are secure and our consumer rights are fully protected?

Consumers International worked closely with the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN) and the International Standards Organisation (ISO) to introduce and enhance consumer protection for e-commerce and fintech.

Some of the pertinent issues that they focused on are:

- Limits on how much consumers would be liable for unauthorised or fraudulent use of their payment systems
- More transparency in remittances sent between countries
- Safeguards on logging transactions and receipts, with electronic logs being kept available
- Treatment of dormant assets in the event of the death of an account holder in particular

Consequently, a new international standard for mobile financial services (ISO 12812 Core Banking – Mobile Financial Services) was developed to

International Standard for Mobile Financial Services

promote best practices, trust in services and build consumer confidence in mobile financial services. It includes consumer protections that are expected for traditional services, but updated for the challenges created by new technology.

According to ISO, the 12812 series of standards and technical specifications aims to define common terms and requirements that facilitate and promote wider and more advanced interoperability along with security and quality of mobile financial services. This is in view of the fact that for the functions to work across the many platforms involved, a robust interface with harmonised processes, effective operability and transparency is key.

Apart from this, the standardisation will also build a safe environment so that consumers and merchants can trust the services and allow the mobile financial service providers to manage their risks. It will promote consumer protection mechanisms including fair contract terms, rules on transparency of charges, clarification of liability, complaints mechanisms and dispute resolution.

The Chair of the ISO technical committee ISO/TC 68/SC 7 that developed the series, Patrice Hertzog said that with more people having mobile phones than bank accounts in the world, developing this technology will bring secure financial services to a wider audience. While stressing that increased security of transactions will be just one of the many benefits of the standards, he observed that, "Financial access has many benefits, allowing people and businesses to plan their lives and also invest in things like education and health, and access insurance. The World Bank has a goal of universal financial access by 2020, and these standards will help contribute to that……. In addition, through supporting the development and implementation of technology in this area, the standards will provide a catalyst for refining and improving the experience of the end user by complementing other standards in the sector such as ISO20022 for financial messaging."

The various parts of the ISO 12812 Core Banking – Mobile Financial Services series define the technical components and their interfaces and the roles of the different parties involved. This covers:

- **Part 1:** General framework — The introduction of the standard with descriptions of some fundamental bases on which the other parts are built
- **Part 2:** Security and data protection for mobile financial services — Definition of a general framework for the secure execution of mobile financial services
- **Part 3:** Financial application lifecycle management — The lifecycle of the application including roles and infrastructure for secure provisioning
- **Part 4:** Mobile payments to persons — Use cases and requirements for interoperability
- **Part 5:** Mobile payments to businesses — Use cases and requirements for interoperability

In sum, this ISO standard will provide the platform for mobile banking technology to expand and grow, bringing robust and secure banking services to more people than ever before.

Additionally, ISO is also working with the International Telecommunication Union (ITU) to develop standards for secure digital financial services (DFS).

Prime Minister Narendra Modi:

CONVERT FINTECH INITIATIVES INTO A REVOLUTION WITH SECURITY INNOVATIONS

LATE LAST YEAR, the finance minister, Nirmala Sitharaman had stated that promotion of digital payment is one of the priorities of the government to facilitate hassle-free and seamless banking transactions. Taking this promise forward, the recent Union Budget is pushing digital finance in a big way with an array of opportunities for fintech companies.

To mark 75 years of Independence, the budget proposes to set up 75 Digital Banking Units (DBUs) in 75 districts across the country through Scheduled Commercial Banks. This will promote digital payments even further, thus giving a major boost to the digital economy. The financial support for digital payment ecosystem announced in the previous Budget is to continue in 2022-23 as well.

Furthermore, all the 1.5 lakh post offices will be connected to the core banking system, thus enabling access to accounts through net banking,

'THE SUCCESS OF fintech lies in its inclusiveness and common good!' – so observed Prime Minister Modi while addressing the flagship InFinity Forum, a leadership conference on financial technology, jointly hosted by the Gift City regulator, IFSCA (International Financial Services Centres Authority) and Bloomberg in December 2021.

Highlighting that, "The fintech industry in India is innovating to enhance access to finance and the formal credit system for every person in the country", he drew attention to the fact that technology is making a big shift in finance with mobile payments exceeding ATM cash withdrawals for the first time in 2020. Without any physical branch offices, fully digital banks are already a reality, and may become commonplace in less than a decade.

The PM affirmed that "Financial inclusion is the driver of the fintech revolution" while adding that fintech rests on the four pillars of income, investments, insurance and institutional credit. He further called on the fintech industry, "Now, it is time to convert these fintech initiatives into a fintech revolution, a revolution that helps to achieve financial empowerment of every single citizen of the country".

His keynote speech emphasised that the rapid growth of fintech in the country is because of people's trust. "The common Indian has shown immense trust in our fintech ecosystem by embracing digital payments and such technologies. This trust is a responsibility. Trust means that you need to ensure the interests of people are secured. Fintech innovation will be incomplete without fintech security innovation." Therefore, fintech firms need to focus on ensuring greater security in their transactions to retain the trust of people!

mobile banking and ATMs. This will also facilitate online transfer of funds between post office accounts and bank accounts. "This will be helpful, especially for farmers and senior citizens in rural areas, enabling interoperability and financial inclusion", remarked the Finance Minister in her budget speech.

Digital Rupee To Become a Reality

Cryptocurrency is the face of digital finance today. The government announced that it will tax the profits on transfer of 'digital assets', (read cryptocurrencies) at 30%. While the rate appears to be steep, this should end the anomaly over the legality of the private cryptocurrencies.

In a landmark move, the centre is geared to disrupt the country's financial and payment system in a big way by introducing the Central Bank Digital Currency - the RBI-led digital rupee will be issued using blockchain technology. To be launched in FY23 after modifying the RBI Act's definition of a bank note to cover digital notes issued by the central bank, this may very well go on to replace the well-worn physical banknotes. The digital currency is expected to pave the way for a more efficient and cheaper currency management system.

– AUGURING DEEPER DIGITISATION

"Digital Rupee will further reduce friction in movement of money, reducing the cost of money and in the long-term contributing to fueling economic growth."

– Rajeev Aggarwal, Founder, Innoviti Payment Solutions Pvt Ltd.

#65YearsOfSuccess

65th Anniversary

Thank you to everyone who has helped make this possible.
We hope to continue serving you for many more years to come.

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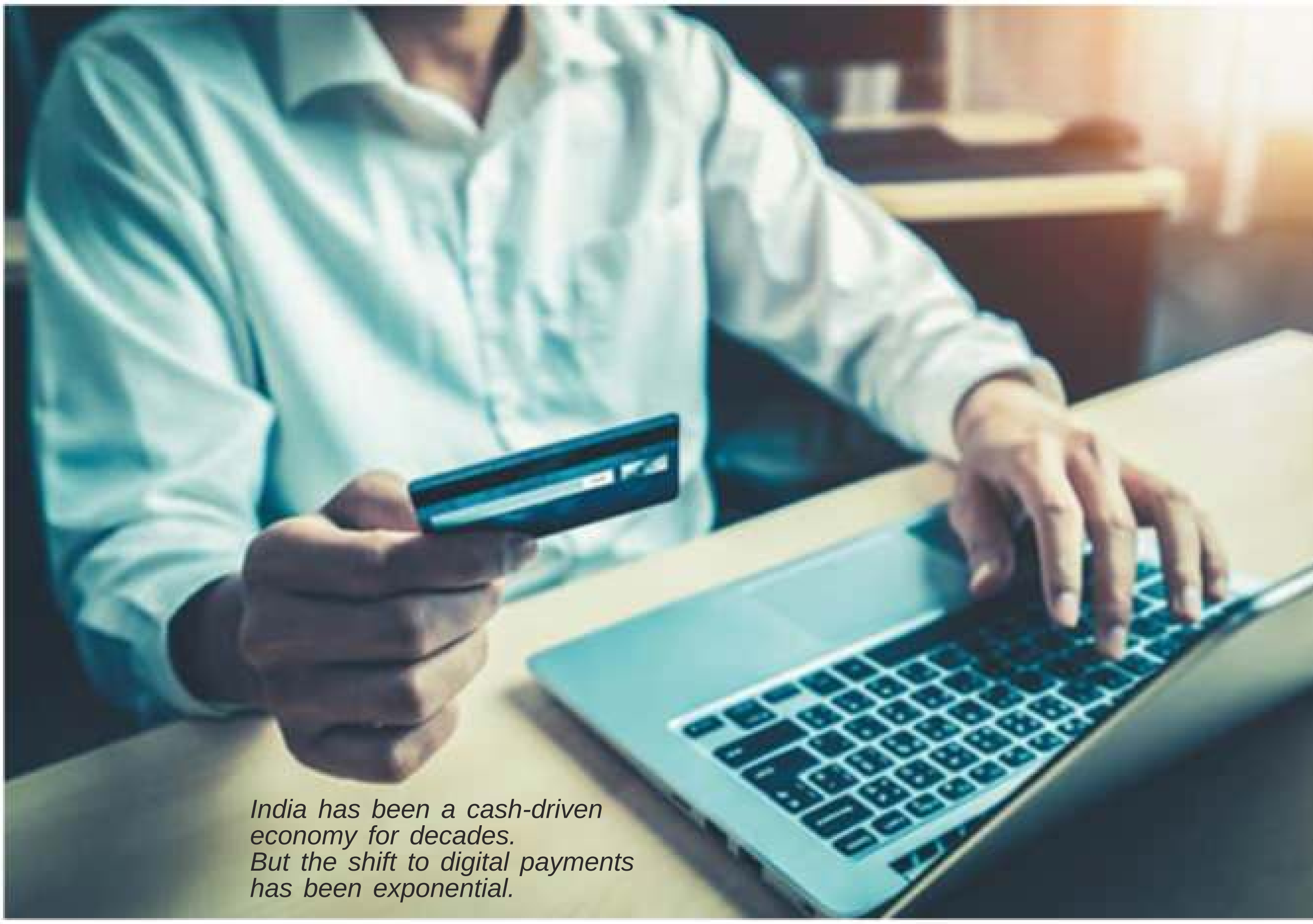
Consumers, Beware

Your Digital Financial Security is in Your Hands

Mobile payments have gone viral; and so has the threat of security! We are poised to become an almost cashless economy, but are we taking sufficient precautions to ensure that our digital transactions are secure?



India has been a cash-driven economy for decades. But the shift to digital payments has been exponential.

DIGITAL PAYMENTS ARE at the forefront of technological progress in the finance industry. Consumers across the country are adopting payment methods like e-wallets, payment apps, UPI, mobile banking, etc. According to a KPMG report, digital payments in India are witnessing consistent growth at a CAGR of 12.7%, while the mobile wallet market is expected to continuously grow at a CAGR of 52.2% by volume between 2019-23.

Payment tools, platforms and providers are mushrooming by the day, creating not only new opportunities but also novel challenges and risks to security. While the regulators shape up their act, consumers have no choice but to be on their guard and protect themselves.

Following are some of the precautions we should take when using digital payments:

- Get into the habit of checking your financial statements on a regular basis and keep a watch for inconsistencies. When you notice any suspicious or unauthorised activity, question/dispute the charge immediately.
- Enabling payment transaction alert notifications helps keep a better track of all activities happening on your card or account.
- As an additional security measure, have only one credit card or payment method for all online transactions, and do not use it for anything else.
- It is better to use one-time passwords (OTPs) to complete your transactions as they are more secure.
- Turning on two-factor authentication – OTP, SMS messages, security questions or push notifications - helps protect accounts from unauthorised access. This way, even if your password falls into the wrong hands, they will not be able to log into the app/website as only you will get the one-time code.
- Instead of opting for convenient authentication methods – like not requiring a pin for credit card transactions – choose secure options like biometric authentication (facial scan or fingerprint ID) that present a more secure way to protect accounts. This will render a stolen credit card or mobile phone as useless.
- It is advisable to use a credit card rather than a debit card as the latter expose the bank details at the point of sale.
- It is a healthy practice to verify the payment recipient beforehand. Something as simple as the recipient sending a request for payment can prevent the money from being sent to the wrong person/address and being lost forever.
- Always double check QR codes before scanning them, especially those printed in public places. Hackers often paste a malicious QR code over the legitimate one at point of sale, ATMs, etc. to capture details linked to the wallet or bank account which can be misused later. It is better if the merchant's name appears above the QR code. And remember that QR codes need to be scanned only to give money and not to receive it!
- There are very many payment apps out there and a lot of them can be dubious. Use official, verified, reputed and trusted apps only. Steer clear of apps that have multiple negative reviews, low number of downloads or lack a 'verified' badge as they are more likely to be illegitimate. Many apps request permission for accessing the camera, phone contacts, SMS, etc. - exercise caution whether this is really needed, else it is better to deny access.
- When using any online payment method, always check whether it uses SSL to encrypt the transaction. The URL of the payment page should begin with https:// and show a lock icon.
- Always work with vendors that are PCI DSS compliant - the higher the level of their certification the better.
- Use Tap and Pay cards with caution – they do not require PIN authentication which can cause issues if the card is misplaced or stolen. Limit their use or avoid them altogether to stay safe.
- Be extra careful when transacting on foreign websites as most countries have not yet started using second factor authentication like OTP.

In addition to this, the rules of general cyber safety apply to digital finance as well:

- Maintain password hygiene by choosing strong passwords, using unique passwords for each app/website and changing them periodically. And it goes without saying – never share your password with anyone.
- Avoid using a public device or wi-fi network for mobile banking or payment transactions.
- It is better to use a private window and virtual keyboards for online transactions as it prevents cookies and credentials from being stored. Always log out from the page after completing the transaction.
- Regularly update the anti-virus/anti-malware software and applications to get the latest security patches.
- Avoid saving card details online as they run the risk of being stolen.
- Never disclose sensitive information like the credit card CVV number, digital wallet PIN, mobile money PIN etc. Keep in mind that no payment providers will ask these details over the phone. Inform the bank/provider if you receive such phony calls.

Conclusion

Opting for convenience rather than security can cost you dearly. Are you willing to pay the price? Why not be safe today rather than sorry tomorrow? Proper vigilance can reduce the risks to a great extent.

Financial Services for All – The Indian Reality!

The fintech sector is at the forefront of India's financial inclusion triumphs. While India has made gigantic strides in its digital financial inclusion journey, a significant portion of the population still remains unbanked. Complete financial inclusion is what will build a robust and inclusive economy with respectable livelihoods for all consumers.

FINANCIAL SERVICES LIKE bank accounts, access to credit and other financial products are the foundation of the economy. Access to this formal financial sector is considered fundamental to universal well-being. In fact, financial inclusion is regarded as an enabler for as many as 7 of the United Nations' 17 Sustainable Development Goals (SDGs).

In simple words, financial inclusion involves delivering banking services to all sections of the society in such a way that every consumer has access and choice of products that suit his/her needs. This is what will bridge the monetary gap between the rich and the poor and lead to true economic development.

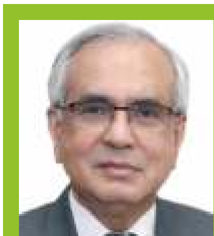
It cannot be denied that digital financial services have contributed more to financial inclusion in the last few years than any other business approach across the world. In the Indian context, while the conventional brick-and-mortar channels of finance have failed to reach every nook and corner of the country, digital finance has managed to truly break all barriers and achieve some stupendous results.

According to the 'Fintech Market in India 2021' report, India had the highest fintech adoption rate of 87% as of 2020. The report pegs India's fintech market at Rs. 2.3 lakh crore in 2020, expected to expand at a compound annual growth rate (CAGR) of 24.56% between 2021 and 2026 to reach Rs. 8.35 lakh crore by 2026.

The Reserve Bank of India's annual Financial Inclusion Index (FI-Index) - which captures the extent of financial inclusion across the country - stands at 53.9 for the period ending March 2021 as against 43.4 for the period ending March 2017. This indicates that more than half of the country's 1.3 billion population is online and has ease of access/usage of digital financial services.

NITI Aayog and Mastercard report on 'Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat'

Released in May 2021, this report is based on five roundtable discussions held in October and November 2020 with experts from the government, banking sector, the financial regulator, fintech enterprises and various ecosystem innovators. It identifies challenges in accelerating digital financial inclusion in India and provides recommendations for making digital services accessible to its 1.3 billion citizens.



"Technology has been transformational, providing greater and easier access to financial services. India is seeing an increasing digitisation of financial services, with consumers shifting from cash to cards, wallets, apps and UPI. This report looks at some key sectors and areas that need digital disruptions to bring financial services to everyone."

- Dr Rajiv Kumar, Vice Chairman, NITI Aayog

There are numerous successful initiatives that are paving the way for digital financial inclusion in the country:

Jan Dhan-Aadhar-Mobile (JAM) Trinity: The combination of Aadhaar, Pradhan Mantri Jan-Dhan Yojana (PMJDY) and a surge in mobile communication has reshaped the way citizens access government services.

Expansion of Financial Services in Rural and Semi-Urban Areas: The Reserve Bank of India (RBI) and National Bank for Agriculture and Rural Development (NABARD) have taken several initiatives to promote financial inclusion in rural areas, like-

- Opening bank branches in remote areas
- Issuing Kisan Credit Cards (KCC)
- Linkage of self-help groups (SHGs) with banks
- Increasing the number of Automated Teller Machines (ATMs)
- Business Correspondents model of banking
- Payment Infrastructure Development Fund (PIDF) scheme

Promotion of Secure Digital Payments: With the strengthening of the UPI interface, digital payments have become more secure than earlier. The Aadhar-enabled Payment System (AEPS) enables an Aadhar Enabled Bank Account (AEBA) to be used at any place and at any time, using micro ATMs. The payment system has been made more accessible due to offline transaction-enabling platforms, like Unstructured Supplementary Service Data (USSD), which makes it possible to use mobile banking services without internet, even on a basic mobile handset.

Enhancing Financial Literacy: The Reserve Bank of India has undertaken the 'Project Financial Literacy' with an objective of disseminating information regarding the central bank and general banking concepts to various target groups including school and college going children, women, rural and urban poor, defence personnel and senior citizens. Pocket Money is a flagship programme of Securities and Exchange Board of India (SEBI) and National Institute of Securities Market (NISM) aimed at increasing financial literacy among school students.

However, the report lists the following challenges that the country still faces in achieving digital financial inclusion:

Demand Side Gap: Lot of efforts have gone into providing supply of digital finance inclusion with much success in the form of e-governance, JAM trinity, Goods and Services Tax and Direct Benefit Transfer schemes.However, the break in the digital financial flow comes at the last mile, where account holders mostly withdraw cash for their end-use.

"In the post-Covid era, building resilient systems and encouraging business models that could be change-makers of the future are crucial. India is emerging as the hub of digital financial services globally, with solutions like UPI growing tremendously and being hailed as instrumental in bringing affordable digital payment solutions to the last mile. Fintech players, alongside the conventional financial services providers, hold the key to transforming the way the economy functions and increasing access to credit for our industry. This will enable us to make the Indian digital financial landscape convenient, safe and accessible to all."

- Amitabh Kant, CEO, NITI Aayog

Unsuccessful Agri-Techs: Agriculture, with its allied sectors, provides livelihood to a large section of the Indian population. Over the years, agriculture's contribution to national GDP has declined from 34% in 1983-84 to just 16% in 2018-19. Most agri-techs have not succeeded in digitising financial transactions for farmers or enabling formal credit at lower rates of interest by leveraging transaction data.

Inability of MSMEs to Access Formal Finance: Micro, Small and Medium Enterprises (MSMEs) have been a key growth driver for the Indian economy. According to a 2020 report, the category employed some 110 million people, or over 40% of India's non-farm workforce. The lack of proper documentation, bankable collateral, credit history and non-standard financials force them to access informal credit at interest rates that are double of those from formal lenders.

Trust and Security in Digital Commerce: The surge in digital transactions has increased the risk for possible security breaches, both for consumers and businesses. A Medici report of June 2020 says 40,000 cyber-attacks targeted the IT infrastructure of the banking sector in India.

Digitally Accessible Transit Systems: With the onset of the pandemic, there is an increasing need for transit systems to be further integrated with contactless payments in India. Globally, the trend is toward open-loop transit systems, with interoperable payment solutions allowing travellers to switch between different modes of transport with a connected payments network.

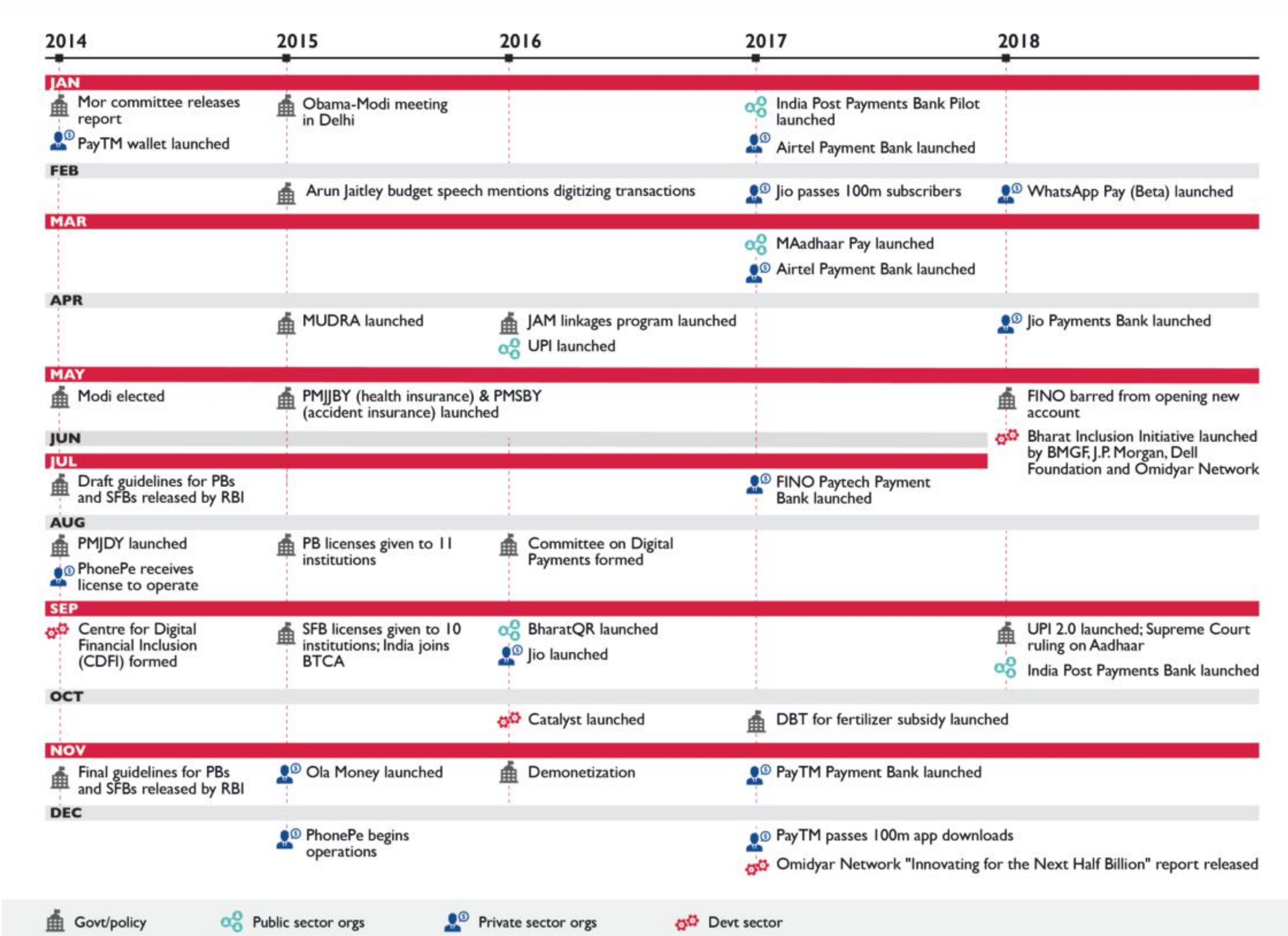
Key recommendations in the report include:

- For market players, it is critical to address the gap on the demand side by creating user-friendly digital products and services that encourage the behavioural transition from cash to digital. A significantly successful example is that of FASTag.
- Strengthening the payment infrastructure to promote a level playing field for Non-Banking Financial Companies (NBFCs) and banks.
- Digitising registration and compliance processes and diversifying credit sources to enable growth opportunities for MSMEs.
- Building information sharing systems, including a 'fraud repository', and ensuring that online digital commerce platforms carry warnings to alert consumers to the risk of frauds.
- Enabling agricultural NBFCs to access low-cost capital and deploy a 'phygital' (physical + digital) model for achieving better long-term digital outcomes. Digitising land records will also provide a major boost to the sector.
- To make city transit seamlessly accessible to all with minimal crowding and queues, leveraging existing smartphones and contactless cards, and aim for an inclusive, interoperable and fully open system.

The 2019 'India Digital Financial Inclusion' report commissioned by the United States Agency for International Development (USAID) through the Mobile Solutions Technical Assistance and Research (mSTAR) project has charted India's extraordinary digital financial inclusion journey.

According to the report, the expansion in digital financial inclusion has been driven by significant innovation in both the public and private sectors (refer Figure 1). One of the key drivers has been government policy that explicitly prioritises access to the banking system as a tool for poverty reduction and inclusive growth. The government has been betting big on technology through its Pradhan Mantri Jan-Dhan Yojana scheme (opening bank accounts for majority of the

Figure 1. Key events in the India DFS ecosystem 2014-18



citizens), Direct Benefit Transfer system (making these accounts the default channel for delivery of government benefits) and Aadhaar-based linkage of bank accounts to biometric identification and mobile numbers, thus leapfrogging more traditional modes of financial access.

The growth of digital payments accelerated manifold due to the sudden demonetization in 2016. The Digital India initiative is further fuelling the use of fintech and transition towards a cashless economy. Figure 2 details the growth in digital financial services in three phases.

To complement the adoption of fintech, the government has been focusing on creating an enabling infrastructure in the form of digital identification and payments technology, the ultimate example being the Unified Payment Interface (UPI).

The Centre is also pushing a differentiated banking model by licensing new tiers of financial institutions - Mobile Network Operators and fintechs can provide banking services under a Payment Bank license while microfinance institutions are encouraged to leverage technology to align with the market and grow into Small Finance Banks. Figure 3 maps out the key players and relationships that exists between institutions in the digital payments ecosystem.

Digital financial inclusion got another boost from the COVID-19 pandemic with an unprecedented surge in digital payments and lending – there was a 40% rise in the number of digital transactions during the lockdown.

The Other Side of the Story

The numbers may look optimistic, but the USAID report further reveals that India's digital finance push is having limited impact due to account dormancy and low levels of usage. 48% of people with an account at a financial institution had not made any deposits or withdrawals from that account in 2019. This account dormancy is higher among populations with lower access to technology, such as poorer and rural populations.

Figure 2: Growth in digital transactions 2014-18 (source: RBI data)

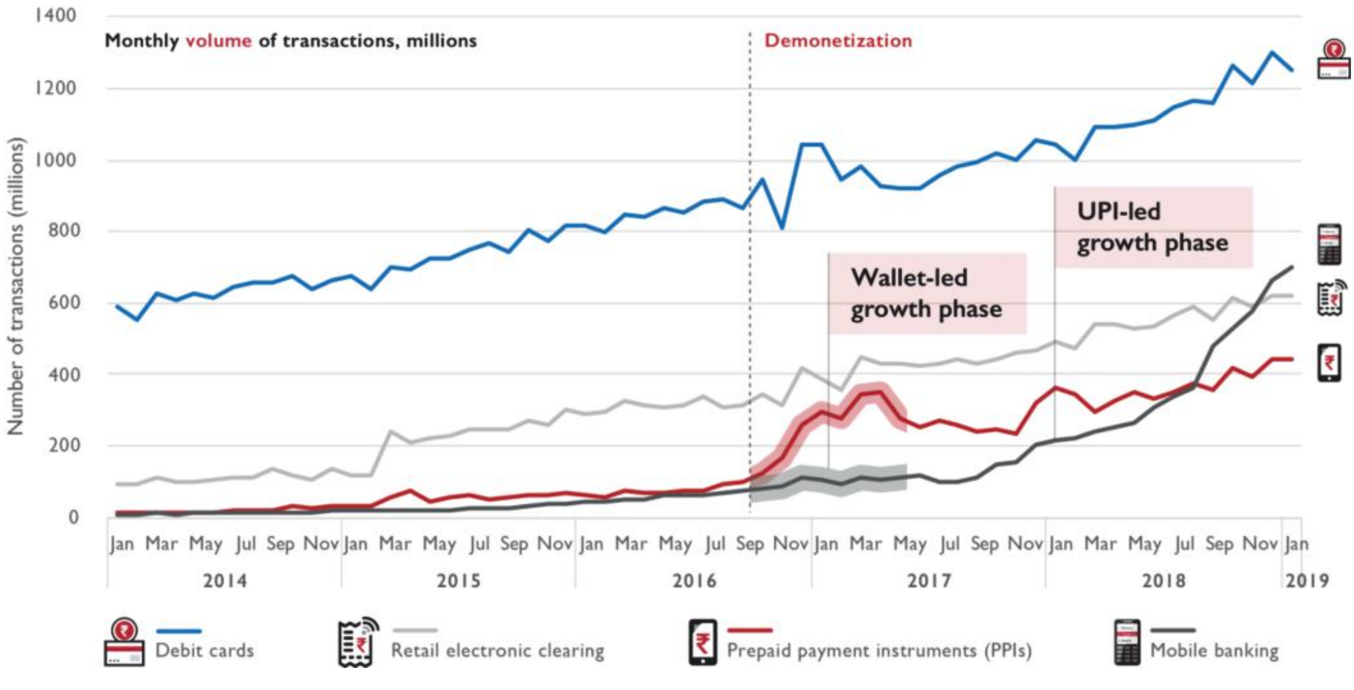
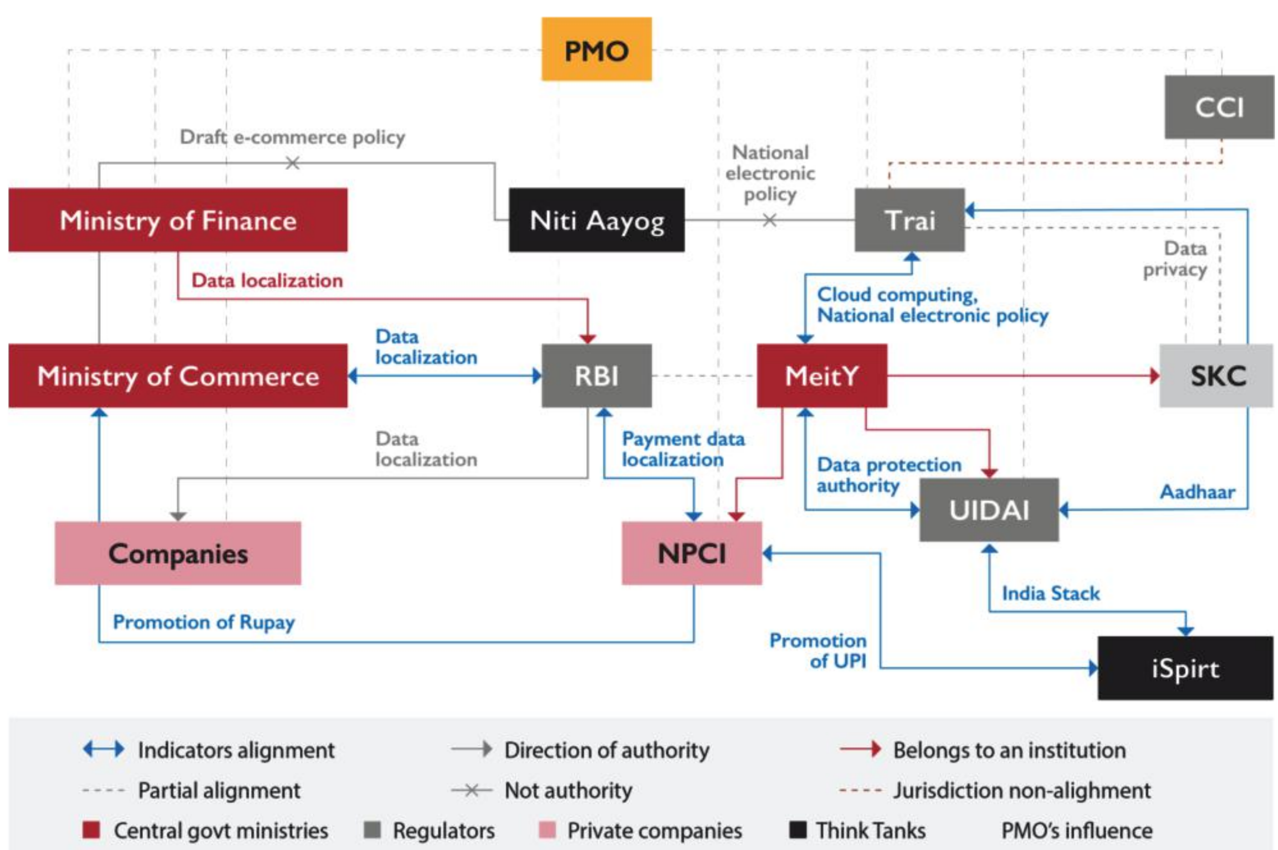


Figure 3 : The policy ecosystem and the role of NPCI (source: The Ken)



	FOR GOVERNMENT	FOR THE PRIVATE SECTOR	FOR THE DEVELOPMENT SECTOR
Short term	- Build a stronger gender focus into next phase of financial inclusion programming	- Simplified apps, improved product design and focus on the customer experience - Increased innovation in savings and wealth management products, focus less on credit - Developing the youth market	- Building on international best practices for gender and DFS - Support for more inclusive business models - Support for local level innovation
Longer term	- Continue to develop shared infrastructure for innovation - Develop the regulatory framework for digital finance - Ensure that digital consumers are protected	- More local-level innovation and product development	- Long term risk capital for innovative approaches - Greater appreciation of the complexity of shifting from cash to digital - Building the evidence base for development impact of DFS

USAID recommended roadmap for the government, private sector and development sector to develop an inclusive digital finance ecosystem over the short and longer term

The usage of the RuPay debit cards is also much lower than expected. Many are lying unused and unproductive at bank branches or Bank Mitra (banking agent) locations. Where cards were received by customers, problems often ensued of not receiving PINs or insufficient knowledge of how to activate and use the cards. According to Global Findex data, although debit card ownership in India increased from 22% in 2014 to 33% in 2017, the proportion of people who had used a debit card to make a purchase in 2019 increased only 1%, from 11% to 12%.

Major challenges remain around the viability of agent networks, financial literacy, the design of appropriate products for India's diverse population, and the stickiness of demand for cash as a means of payment and jewellery and livestock as savings tools.

India's financial inclusion journey is further impeded by complex regulatory and compliance laws, concerns regarding data security, and the threat of cybercrime.

The USAID report lists the following crucial findings that will help the Indian digital finance space to grow in a more inclusive way:

- The human touch point remains critical – Even as technology enables rapid scaling of business models, the need for trust and understanding of how to use these services will continue to require interaction with a human being at the last mile.
- Digital finance is closely linked with aspiration – In both urban and rural environments, the desire to try new digital products and continue to use them is closely linked with aspirational characteristics like wanting to grow a business or participate in the broader national digital economy.
- Product design is important and underrated – A number of models appear to have struggled because financial services do not meet the differentiated needs of Indian populations. Too often products have been designed for the needs of wealthier, urban, Hindi and English-speaking populations, effectively excluding large swathes of the market opportunity.
- A lot of people still really like cash – Much of the movement towards digitisation is based on an assumption that it provides an improvement on cash-based payments. This can overlook the complexities around why some people use cash and the difficulty of changing behaviour.
- More exploration is required around the linkages between digital payments and financial inclusion – While great progress has been made in the access to financial services, the relatively low levels of usage hints at a disconnect between what is assumed to be the impact of digital financial services and the reality on the ground.

Conclusion

India has come a long way but penetration of financial services is still quite low. There is a lot to do to exploit the untapped opportunities and the favourable ecosystem to achieve true and fair financial inclusion for all the consumers.

CONSUMER PROTECTION FOR DIGITAL FINANCIAL SERVICES: A SURVEY OF THE POLICY LANDSCAPE ACROSS THE WORLD

Digital financial services have contributed to the expansion of financial inclusion, but consumer protection risks are threatening to erode the important gains achieved. Taking a look at how digital finance regulation plays out in different countries and what policymakers should focus on in the future.

DIGITAL FINANCIAL SERVICES are evolving rapidly characterised by an influx of new technologies, new providers and new services. While this is driving financial inclusion across the world, it brings its own set of risks in tow. In fact, recent studies prove that digital finance consumer risks are increasing since the past few years. The COVID-19 pandemic has fuelled a large-scale adoption of digital payments and lending, but it is aggravating the risks as well. Regulatory and supervisory measures powered by effective, risk-based and innovative consumer protection actions have become all the more crucial.

The AFI (Alliance for Financial Inclusion) upholds that the development of the complex digital finance sector is being undermined by consumer protection risks to the extent of creating over-indebtedness and mistrust of digital finance services. Accordingly, the Digital Financial Services Working Group (DFSWG) and the Consumer Empowerment and Market Conduct Working Group (CEMCWG) of the AFI worked together to examine the state of regulation of consumer protection for digital financial services (CP4DFS) in the AFI member countries.

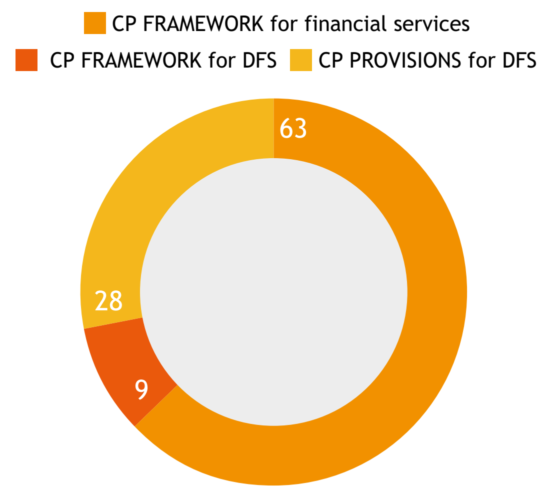
The ensuing report on 'Consumer Protection for Digital Financial Services: A Survey of the Policy Landscape' (released in January 2021) provides practical insights for policymakers on how to use the related policy model through a framework for advocacy and capacity building on CP4DFS.

AFI is the world's leading organisation on financial inclusion policy and regulation. The member-owned network comprises of the central banks and other financial regulatory institutions from more than 90 developing countries. The Reserve Bank of India has been a principal member of AFI since September 2012.

The study (based on a quantitative survey of 43 member institutions along with other sources) reveals that the risks faced by consumers are mainly associated with the use of technology (limited awareness) and the susceptibility to fraud (through passwords, identity theft and social engineering attacks). This has compelled the regulators to rethink their approach to supervising (CP4DFS) which includes:

- Reforming existing consumer protection regulations (designed when financial markets were predominantly cash oriented)
- Clarifying regulatory requirements
- Promoting collaboration or harmonisation with relevant regulators (e.g. telecommunications regulators)
- Developing specialised policy guidance for digital financial services (DFS) (consumer protection in e-money/mobile money policy, data privacy and protection, cybersecurity, disclosure and transparency, consumer awareness, etc.).

FIGURE 1: LEGAL AND REGULATORY MODELS TO ADDRESS CP4DFS (TOTAL RESPONDENTS = 43), %



The report delves into the five key pillars of:

1. Policy and Regulatory Environment

The most common legal and regulatory practice is to regulate CP4DFS within the wider consumer protection framework for financial services. While some regualtors are complementing this with consumer protection provisions in ancillary DFS-specific regulations (such as e-money/mobile money policy), barely a handful of countries have a specific consumer protection framework for DFS (Figure 1). The DFS ecosystem is still developing in most of the countries prompting many of the regulators to employ a 'wait and see' approach to DFS-specific regulations for the financial sector.

Figure 2 shows that the regulators are not satisfied with their current provisions. Most of them believe that certain consumer protection (CP) principles are still at risk and there is a need to take major steps to improve CP4DFS.

Furthermore, DFS is regulated by different authorities which can pose risks of regulatory arbitrage, overregulation and regulatory loopholes, all of which are detrimental to the effective governance of consumer protection issues in the DFS industry (Figure 3).

Key Takeaways: There is a need for:

- A clear and specific legal and regulatory framework to help authorities develop subsequent interventions to address existing and potential risks.
- A well-defined legal mandate to provide clarity on governance.
- Specific measures to foster healthy competition and prevent monopolistic and anti-competitive behaviours.

FIGURE 2: RELATIONSHIP BETWEEN HAVING PROVISIONS FOR A SPECIFIC CONSUMER PROTECTION PRINCIPLE (TOTAL RESPONDENTS = 43) AND CONSIDERING THE TOPIC ONE OF THE TOP FIVE CONCERNS FOR THE COUNTRY

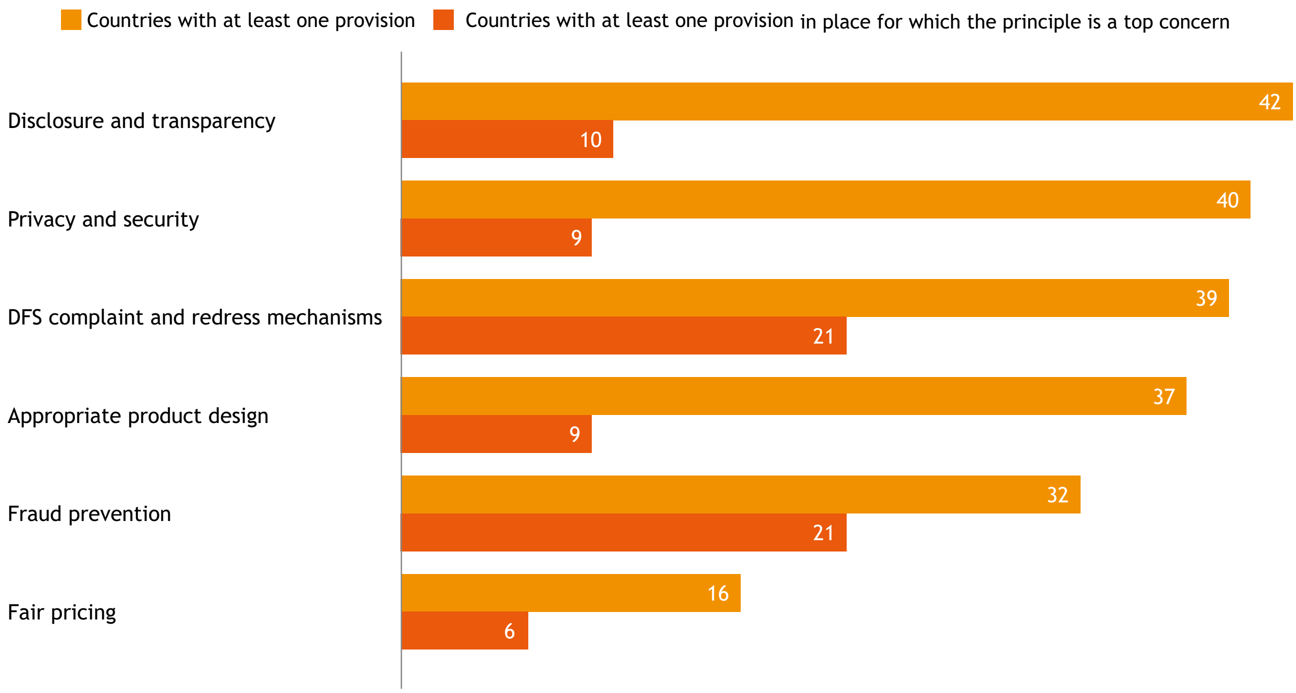
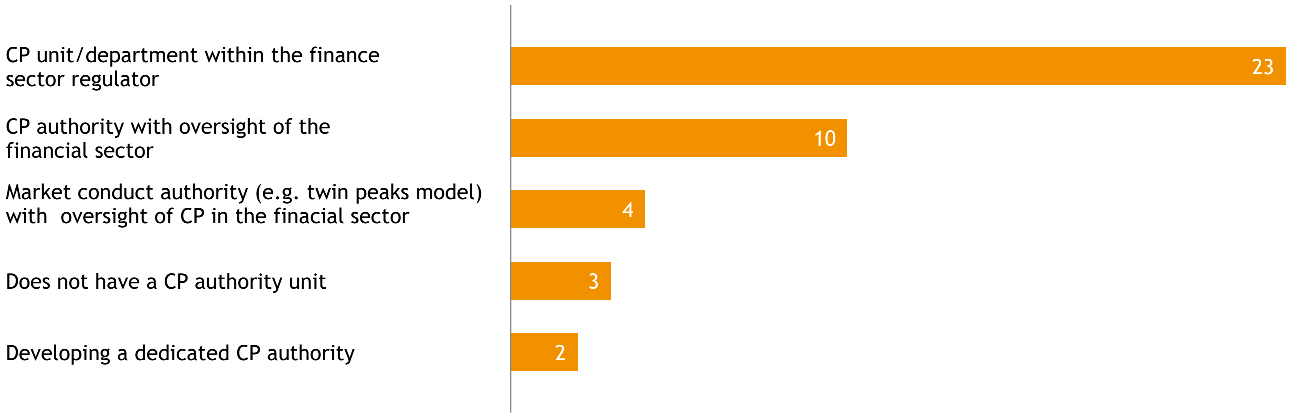


FIGURE 3: TYPES OF GOVERNANCE (LEADERSHIP AND LEGAL MANDATE FOR REGULATION, SUPERVISION, AND ENFORCEMENT) FOR CONSUMER PROTECTION WITHIN AFI NETWORK (42 RESPONDENTS)



2. Product Development and Service Delivery

A comprehensive privacy and protection framework or an authority with a legal mandate specific to DFS is essential for safeguarding the sensitive information that can be used to harm consumers through privacy violation. Regulators are aware of the risks and are imposing mitigation measures to protect the security, integrity and confidentiality of customer data (Figure 4). However, fact is that the provisions of the traditional financial system are being extended to the DFS sector without tailoring them to the innovative digital solutions.

Two-thirds of the countries have still not developed a comprehensive cybersecurity framework; they merely ask the DFS providers to develop their own cybersecurity policies and processes. Only one-third have established

FIGURE 4: METHODS TO ADDRESS DATA PROTECTION AND PRIVACY

42% (18 countries) have established a specialized authority or agency with a legal mandate for data protection; and

93% (40 countries) have at least one regulatory and enforcement provision on consumer data protection, privacy and use.

and enforced an industry code of conduct for fair treatment of clients. Thailand is the only country with specific regulation for digital credit.

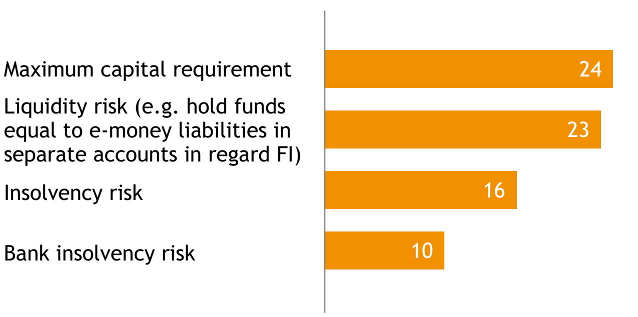
Moreover, DFS products are not customer-centric and providers tend to take advantage of client inexperience and ability. Product development is not based on clients' behavioural insights and needs of vulnerable segments are neglected.

Yet, customer-centric products are not among the top concerns of regulators (Figure 5). But 23% of AFI members still consider product suitability an important topic to be addressed. Some regulators are creating a risk management network with specific regulatory provisions (to mitigate risks from loss or misuse of client funds).

Key Takeaways: There is a need for:

- Regulations on data protection to strengthen DFS systems and infrastructure and secure data against unauthorised access.
- Regulations on cybersecurity that are proportionate and risk-based along with establishing a national cyber awareness and warning body.
- Regulations on client treatment and business conduct to promote high ethical standards and build a trusted and reliable ecosystem.

FIGURE 5: NO. OF COUNTRIES THAT HAVE UNDERTAKEN PROVISIONS TO PROTECT CUSTOMER FUNDS (TOTAL RESPONDENTS = 43)



- Regulations on product development to promote affordable and appropriate products.
- Regulations on risk management frameworks to ensure DFS providers create a risk-based environment with internal control mechanisms.

3. Consumer Awareness, Complaints And Redress

Digital financial literacy and capability appears to be very low among the consumers. 79% of regulators indicated that low awareness and sensitisation on DFS are among their top-five concerns. However, only 37% have policies/interventions for digital financial literacy. Lack of proper disclosure and transparency is another pressing concern and majority of the regulators seem to have some provisions for this (Figure 6).

Complaint resolution mechanisms are vital for consumers to defend themselves against any disservice or harmful action. 50% of the countries require DFS providers to institute an internal dispute resolution (IDR) mechanism and define a minimum service level while 65% have established an independent external dispute resolution (EDR) or alternate dispute resolution (ADR) mechanism with an independent ombudsman.

FIGURE 6: DISCLOSURE AND TRANSPARENCY PROVISIONS BY REGULATORS

91% of regulators request that DFS providers publish clear information about costs, terms and conditions (major benefits, risks, terms, liabilities and obligations) on their websites, marketing materials and agents' points of sale (POS).

77% of countries, DFS providers must ensure that promotional and marketing materials are accurate, honest, understandable, not misleading and in a language that customers can understand (e.g. taking into account low literacy levels and the needs of vulnerable groups).

67% of regulators require DFS providers to inform clients about their rights, such as the right to complain or rights related to the privacy of their data.

72% of regulators require DFS providers to seek client consent to share their data with third parties (e.g. central bank, credit bureau) and 56 percent require DFS providers to inform clients how their personal data will be used.

The COVID-19 pandemic has fuelled a large-scale adoption of digital payments and lending, but it is aggravating the risks as well.

Key Takeaways: There is a need for:

- Interventions to launch and promote digital financial literacy and capability campaigns to enable consumers to make informed and efficient financial decisions.
- Regulations on disclosure and transparency wherein DFS providers communicate effectively with customers to ensure that they understand and trust the DFS environment.
- Regulations on IDR, complaint and redress resolutions to ensure that effective complaints mechanisms are in place to receive, resolve and report complaints; allow consumers to register complaints, assert their rights and ensure that negative trends are detected and mitigated; and establish EDR and/or ADR mechanisms.

4. Supervision and Enforcement

Regulatory bodies continue to use traditional supervisory and enforcement mechanisms for the DFS sector. Only 23% have regulatory oversight for non-bank digital credit providers, especially fintechs. Others have to update/reform their framework to reflect the unique and growing DFS market.

Key Takeaways: There is a need to:

- Promote inter-agency cooperation among relevant authorities with supervisory oversight.
- Standardise the supervision of core DFS thematic issues (e.g. data privacy and protection, cybersecurity, KYC).
- Adapt the enforcement mandate and tools for the DFS sector.

5. Cross-cutting Issues

There are segments of the population in every country that face barriers to accessing and using DFS effectively. These barriers include low literacy and digital skills, lack of required identification/documentation, data profiling and the absence or inadequate provision of inclusive regulation. For vulnerable groups using DFS, these barriers tend to exacerbate exposure to consumer protection issues. However, the existing consumer protection regulations are very generic with very minimal provisions for vulnerable segments who may require targeted interventions.

Key Takeaways: There is a need to:

- Identify the main vulnerable segments and the barriers they face, and design relevant prudential and market conduct regulations to ensure safe use of DFS.
- Design relevant, demand-driven and evidence-based digital financial literacy and capability interventions.
- Launch advocacy campaigns and facilitate a multi-stakeholder approach for raising awareness and strengthening stakeholder commitments to protect these vulnerable segments.

Chief Recommendations

Analysis of the survey findings reveals that regulators need to move beyond the current trend of regulating CP4DFS within the confines of existing consumer protection frameworks. Regardless of the maturity of the DFS sector, all regulators should:

- Undertake a diagnostic study to identify key DFS-specific risks and gaps in their existing consumer protection regulatory framework
- Develop a DFS-relevant strategy to prioritise and implement the interventions and
- Implement the strategy in a timely manner to ensure a proactive approach to consumer protection policies for DFS.

The full report is available at: https://www.afi-global.org/publications/consumer-protection-for-digital-financial-services-a-survey-of-the-policy-landscape/

Will We Get The Digital Hygiene We Need?

The next generation financial services are a boon that is simplifying trade and commerce on all levels while making daily life exceptionally easy for the consumers. Maintaining digital hygiene and safety calls for developing or adapting regulation to address the emerging risks to consumers.

DIGITAL FINANCIAL SERVICES have become the leading driver of inclusion for the unbanked around the world. Indeed, technology in finance is making it diverse, competitive, efficient and inclusive. The hitherto unserved - like semi-urban, rural and low-income customers along with unorganised sectors – are now able to get access to finance from fintech platforms. Some of them also cater to MSME and SME sector. Our rural and semi-rural population has also started using digital payment gateways.

The Good Side Rears Its Head

The positive outcomes of digital finance cannot be denied. A host of better services and protections are in the offing too. Contactless payment technology is exploding and QR payments are estimated to account for 27% of all digital commerce transactions by 2024 (Juniper Research). Invisible payments are also becoming a reality wherein the payment can take place automatically in the background by simply saying 'YES' to confirm the transaction. Example, the 'checkout free' Amazon Go stores in the USA.

Buy Now, Pay Later (BNPL) – consumers can make purchases and pay for them at a future date - is poised to become an easy interest-free alternative instalment loan. This short-term financing is available at the point-of-sale itself and can be paid off in a series of fixed repayment instalments. Getting approval is much easier than for traditional credit cards which will make it a popular payment option, especially when shopping online. According to studies by Synchrony, while only 1% of shoppers used BNPL for their most recent major purchase in 2021, 58% of shoppers aged 18-35 who did pay using BNPL have done so multiple times already.

We already have our payments banks that accept deposits, issue ATM and debit cards and provide online banking but cannot issue loans or credit cards. Their low-cost and paperless operation through mobile phones permits them to address the unbanked and underbanked market segments characterised by low value/high volume transactions. Like Airtel Payments Bank and Paytm Payments Bank.

Now neobanks are disrupting the face of digital finance once again. These are online-only entities that operate digitally or via mobile apps without any physical branches per se, like RazorpayX, Jupiter, Niyo, Open, etc. These new age banks are leveraging their low costs, speed and convenience to offer innovative products coupled with superior customer service to the consumer, thus meeting their evolving expectations in the digital age.

According to a KBV Research report, the global neo-banking market size is expected to reach $333.4 billion by 2026, rising at a compounded annual growth rate (CAGR) of 47%. Lately, NITI Aayog even suggested setting up full-stack 'digital banks' to deepen access to financial services in the country.

The recent introduction of the Account Aggregator framework by the RBI is spearheading a transition to an open banking system by enabling data sharing. This is likely to iron out many of the current inefficiencies in capital allocation and can become a precursor to a safer and more inclusive digital finance economy.

The Ugly Side Bays for Blood

The growing adoption of financial technologies is calling for more action in terms of legal and regulatory interventions. Apart from magnifying the enduring challenges of data protection, privacy concerns and pre-emptive fraud detection, new threats are looming. For instance, neobank customers do not have any legal recourse or a defined redressal process in case of an issue.

47% The global neo-banking market size is expected to reach $333.4 billion by 2026, rising at a compounded annual growth rate (CAGR) of 47%.

Blockchain, crowdfunding and distributed ledger technology (DLT) is already posing fresh consumer detriments of scams and hacks. The newer payment systems and models can further compromise security and market integrity. New products and services might be sold to customers who do not realise the risks or cannot prepare to meet them.

According to a recent report by Boston Consulting Group titled 'The Poster Child', over 75% of all digital payments and digital loans and 25% of digitally opened accounts will be on third-party platforms in the next five years.

Another emerging issue is the use of artificial intelligence and machine learning to sort, analyse and make decisions about consumers. Many fintechs are using computer algorithms to eliminate human prejudice when determining consumer eligibility for loans, credit cards or other financial products. While such automated decisions may seem to be even-handed on paper, they are actually subject to errors and bias and may even turn out to be unfair, unaccountable and non-transparent.

Buy Now, Pay Later (BNPL) – consumers can make purchases and pay for them at a future date - is poised to become an easy interest-free alternative instalment loan.

For instance, the automated models for creditworthiness assessment and credit decision-making usually incorporate profiling based on factors such as gender, race, ethnicity and religion or even location, literacy, etc. Therefore, they can reproduce and perpetuate existing patterns of discrimination and exclude vulnerable sections, thus leaving behind digitally illiterate and unconnected consumers. Or poor algorithm design and non-representative data can lead to biased results.

However, it has been noted that consumers are largely unaware or remain powerless regarding use of such algorithms. The regulators too generally lack the technical expertise to evaluate the algorithmic systems. This is why the Federal Trade Commission in USA has issued guidelines for transparency in how algorithms are used, what data is being collected and disclosure of any factors that result in adverse decisions. Such measures can ensure that AI decisions are fair and not in violation of anti-discrimination laws. The European Banking Authority (EBA) requires that when using technology-enabled innovation for credit granting, it is important to understand the quality of data and inputs while having internal policies and procedures to detect and prevent bias. Some countries even grant consumers the right not to be subject to decisions based solely on such automated processing. India also needs to proactively create algorithmic accountability through regulatory and technical safeguards.

Suggestions for Making the Good Better

- Digital education should be incorporated into financial literacy to dispel misconceptions and inspire confidence in the consumers.
- Consumers have to be empowered with the data generated by them in a way that they can exercise control over it like any other personal asset.
- Safety provisions and grievance redressal mechanisms need to be simplified and publicised to encourage greater and safer participation.
- The statutory rights and obligations of the fintech service providers have to be clearly delineated.
- They should have appropriate safeguards to provide confidentiality, integrity and availability of information.
- As the scope of fintech activities casts a global net, regulation also has to keep pace by reaching out across borders.
- With many fintechs leveraging on cloud computing, it is possible that going forward some future software could end up being exclusively available on cloud platforms. Accordingly, the regulators will also have to opt for in-house cloud development or collaborate with various service providers.

And yet, the regulation and supervision should not become inadvertent barriers to the use of innovative technology. In fact, regulators need to conduct themselves neutrally. 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.

Conclusion

The market for digital financial services will become even stronger when consumer voices are heard, consumer rights are respected, and consumers have agency!

Regulatory Landscape of the Fintech Sector in India

Laws and regulations are essential for ensuring safety and security in digital finance, especially the burgeoning payments ecosystem. The government has been on the beat with several measures that have significantly increased customer confidence and safety.

The Reserve Bank of India is striving to strengthen India's digital payments architecture and improve security, control and compliance among banks, gateways, wallets and other non-banking entities.

DIGITAL FINANCE IS providing the Indian consumer with a broad set of financial products and services at the most competitive prices. The fintech space is exploding with a huge influx of providers serving varied operations like payments, insurance, stocks, bonds, peer-to-peer lending, foreign exchange and so on. In fact, India has emerged as the fastest growing fintech market and the third largest fintech ecosystem in the world. According to the Tracxn database, there are a total of 4,680 companies in India classified as fintechs, which can be broadly grouped into 15 business models (See Chart 1).

India is taking the lead in digital payment transactions with the 2021 union budget even announcing Rs. 1,500 crore for incentivising digital payments. This financial support will be continued in the next fiscal year as well.

However, the rampant growth of digital finance has also led to concerns over breach of data privacy, unethical business conduct, mis-selling, illegitimate operations and more. Proper regulations and oversight is essential for protecting the unsuspecting customers from the unscrupulous practices and ensuring orderly growth of the sector.

The Highly Fragmented Space of Regulations

Policymakers in India realised early on that it is mandatory to regulate the fintech sector. While we do not as yet have a designated set of regulations for digital finance services

Chart 1 - Indian FinTechs by Business Model

Business Model	No. of Firms*	Description
Investment Tech	990	Platforms for retail and institutional investors to research and invest in multiple financial assets.
Payments	978	Companies which participate in traditional web based and offline payment cycle; provide alternative mode of payment, and support the payment companies in terms of security, analytics, platform, etc.
Finance and Accounting Tech	906	Automate functions of finance and accounting departments of organisations.
Alternative Lending	702	Online lending platforms (including balance sheet lenders, marketplaces, P2P lenders as well as lead generators) and enablers.
Banking Tech	369	Tech solutions for banking industry including software, hardware, and Tech-enabled services.
Cryptocurrencies	342	Bitcoin and other digital currency products and services.
Crowdfunding	185	Online platforms where people, organisations raise money from the masses.
Internet First Insurance Platforms	161	Tech platforms to consumers for purchasing and managing their insurance
Insurance IT	98	Software products and data solutions primarily for the insurance industry
RegTech	95	Tech products primarily for financial institutions and regulators for efficient implementation and monitoring of regulations
Robo advisory	68	Automated, low-cost investment services to retail investors and technological solutions for automated investments.
Remittance	46	Cross-border money transfer solutions & services
Forex Tech	32	Tech solutions, including internet-first platforms and software for forex market.
Islamic FinTech	7	Internet-first platforms and software for sharia-compliant finance
Employer Insurance	6	Solutions for managing employee insurance benefits.

** Source: Tracxn database. The total is more than 4,680 as some companies have multiple business models.*

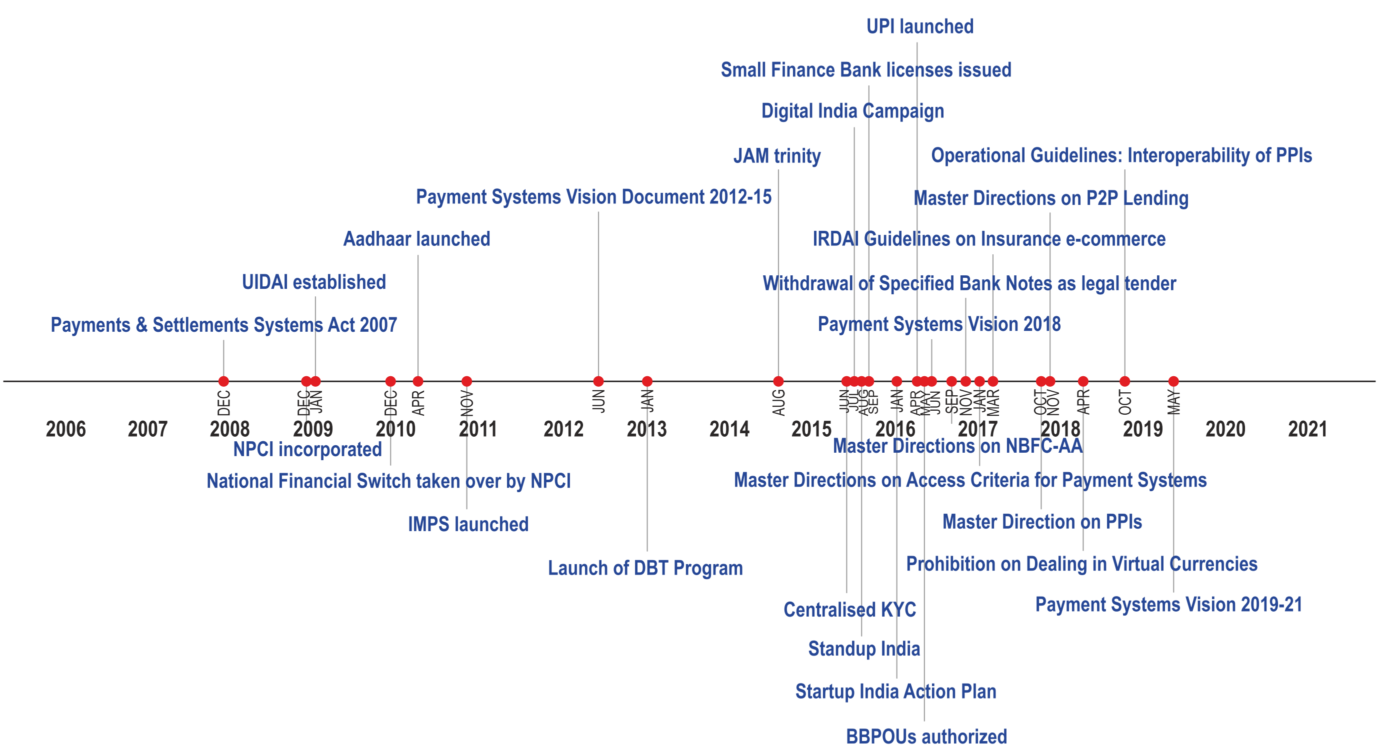
and products, they are governed by varied laws. Such as:

- **Payment and Settlement Systems Act, 2007:** India is one of the few jurisdictions with a specific Payments and Settlements law. It regulates and supervises payments and settlement in India and designates the Reserve Bank as the authority for this purpose. The Act provides that no 'payment system' can be set up or operated in the country without prior authorisation from the RBI. This covers credit and debit cards, smart cards, money transfers and prepaid payment instruments (PPIs). The National Payments Corporation of India (NPCI) is the umbrella organisation for operating retail payments and settlement systems.
- **Reserve Bank of India Act, 1934 for NBFCs:** The RBI Act governs all non-banking financial corporations (NBFCs). The regulations mandate that all such organisations providing fintech services in India have to obtain a Certificate of Registration from the RBI.
- **Banking Regulations Act, 1949 for Payment Banks:** Section 22 provides that all payment banks should be registered as private limited companies and licensed under the Act. Specific licensing conditions restrict the banks' activities, especially for the acceptance of demand deposits and on payments and settlements. These payment banks do operate as a bank but function on a smaller scale; they cannot provide loans or issue credit cards.
- **Peer-to-Peer Lending Platform Directions, 2017:** These guidelines for P2P lending platforms prescribe the lender exposure norms and borrowing limits concerning the operations of P2P lending platforms in India.
- **UPI Procedural Guidelines issued by NCPI:** The NCPI regulations provide a framework for the UPI payments in India. Accordingly, money transfer services through UPI platforms have to be generated by banks. These banks can engage technology providers to carry out the mobile application operations for UPI payments, but it should be under the eligibility criteria and prudential norms as prescribed by the NCPI.

Reserve Bank of India Swings Into Action

Over the years, RBI has prioritised security for digital finance. It has undertaken numerous measures – like requirement of additional factor of authentication and online alerts for every transaction - to ensure increased

REGULATORY TIMELINE OF INDIAN FINTECH



Note: Vide its order dated March 04, 2020, Hon'ble Supreme Court of India set aside the RBI Circular on Prohibition on Dealing in Virtual Currencies on the ground of proportionality.

Regulatory timeline depicting India's favourable policy moves to promote fintech efficiency and uninterrupted availability of secure, accessible and affordable payment systems.

In 2020, the Reserve Bank announced a scheme to conduct pilot tests of innovative technology that enable retail digital payments even in situations where internet connectivity is low/not available. Three pilots were successfully conducted in different parts of the country (from September 2020 to June 2021) involving small-value transactions covering a volume of 2.41 lakh for value of Rs.1.16 crore. A framework for authorising Payment System Operators (PSOs), including banks and non-banks, to provide offline payment solutions using cards, wallets or mobile devices for remote or proximity payments will be introduced soon.

Following this, in January 2022, a framework was released for small value digital payments in offline mode using cards, wallets or mobile devices. Such payments without the use of internet or telecom network can be made in proximity (in face to face mode) only without additional factor authentication and are currently capped at Rs. 200 per transaction.

The RBI is also working on geo-tagging of payment system touch points that will provide location information (geographical coordinates) of existing payment acceptance infrastructure used by merchants - like Point of Sale (PoS) terminals and Quick Response (QR) codes - on an ongoing basis to ensure wider access to digital payments.

In February 2021, the apex bank issued the Reserve Bank of India (Digital Payment Security Controls) Directions, 2021 for regulated entities to set up a robust governance structure for digital payment systems and implement common minimum standards of security controls for channels like internet, mobile banking, card payments among others.

The Master Directions provide specifications on a diverse set of application areas and protocols. The registered scheduled commercial banks, small finance banks, payments banks and credit card issuing NBFCs are required to:

- Formulate a policy for digital payment products and services for identifying, monitoring and managing the specific risks.
- Implement web application firewall solution and distributed denial of service (DDOS) mitigation techniques to secure the digital payment products and services. There should be effective logging and monitoring capabilities to track user activity, security changes and identify suspicious behaviour and transactions.
- Protect customer information such as account numbers, card numbers and other sensitive information when transmitted via SMS or e-mails with mechanisms to actively monitor non-genuine, unauthorised and malicious applications and take requisite action to bring them down, if necessary.

- Implement multi-factor authentication for payments through electronic modes and fund transfers to combat cyber-attacks and ensure confidentiality of payment data. They should also set down the maximum number of failed log-in or authentication attempts after which access to the digital payment product/service will be blocked.
- Implement configuration aspects for identifying suspicious transactional behaviour to alert the customers in case of failed authentication, time frame for the same, etc.

- Implement additional levels of authentication to internet banking websites such as adaptive authentication, strong CAPTCHA (preferably with anti-bot features) with server-side validation, etc. to prevent authentication related brute force attacks or Denial of Service (DoS) attacks.
- Ensure that the mobile apps require re-authentication whenever they remain unused for a designated period. They should not store sensitive personal or consumer authentication information and should securely wipe any sensitive customer information from the memory when the customer exits the app. Older mobile app versions should be deactivated in a phased manner.
- Follow various payment card standards as per Payment Card Industry prescriptions for comprehensive payment card security as per applicability/readiness of updated versions of the standards.
- Put in place a real time reconciliation framework for all digital payment transactions with other stakeholders such as payment system operators, business correspondents, card networks, etc. for better detection and prevention of suspicious transactions.
- Have an escrow arrangement for the source code of digital payment applications that are licensed by a third party vendor so as to ensure continuity of services in the event such third party vendor defaults or is unable to provide services.
- Institute adequate mechanisms and controls for monitoring the activities of third party service providers in line with RBI guidelines on outsourcing and also conduct risk assessments.
- Promote customer awareness by incorporating secure and safe guidelines and training materials for end users within the digital payment apps while making it mandatory for the consumers to go through secure usage guidelines. Confirmation should be recorded during the onboarding procedure in the first instance and after each/major updates of the app.
- Provide a grievance redressal mechanism and incorporate a section on the digital payment app to specify the process and procedure (with forms/contact information, etc.) to lodge consumer grievances. They also have to adhere to extant instructions issued by RBI in relation to online dispute resolution system for digital payments.

These guidelines are technology and platform agnostic, and will create an enhanced and enabling environment for customers to use digital payment products in a more safe and secure manner. All regulated entities were given six months to ensure compliance.

This has implications for not only banks but also third partypayments apps such as Google Pay, WhatsApp Pay and PhonePe on how they interact with their banking partners and store customer data. It will also affect the business models of several payment gateways that rely on delayed settlement of merchant funds to banking partners. The rules now specify that a payment operator or a bank cannot delay settlements to nodal settlement accounts beyond 24 hours.

Conclusion

With no definite regulations till now, it is difficult to drive the regulatory landscape for fintech services. The master directions have cast a wide net and can lead to increased adoption of digital payments.

LUVLEEN SIDHU

is the Chair, CEO and Founder of BM Technologies, Inc., one of the largest digital banking platforms and one of the first publicly traded neo banking fintechs in the U.S.A. She was recently conferred the 2022 LendIt Fintech's Woman of the Year Award for her outstanding leadership, integrity and a commitment to fostering gender diversity, as well as the continued growth and innovation demonstrated by BMTX.

Ms. Sidhu is also the Director and Founder of the BMTX Foundation where she identifies and funds budding entrepreneurs and organisations that promote financial literacy. She regularly speaks at national and international industry conferences, undergraduate and graduate programs to encourage financial innovation and entrepreneurship for bringing new fintech technologies to the market. She is also on a mission to provide financial advice specifically to her fellow millennials.

Here, she speaks to The Aware Consumer on the new technologies knocking on the door of digital finance, the state of regulations in the fintech sector and how we should work to ensure fair, safe and secure digital finance for the consumers.

"Through advancements in technology and a focus on the consumer, fintechs are leading the way in financial inclusion!"

If you are doing digital banking or other transactions on a digital platform, make sure that you are only using secure wi-fi and not an open network. It is most important to keep changing your passwords periodically for accessing different financial services.

Q Digital finance has transformed the face of financial services bringing ease and speed. Where do you see things moving now?

With advancement in technology, we been able to do innovative things that we couldn't do before such as provide more access to credit. For example, lending-oriented fintechs now have access to machine learning which allow them to underwrite risk beyond a simple credit score using information such as one's profession, earning potential, etc. This allows them to offer credit to those who are worthy of credit but may not be approved by traditional underwriting models Technology has also enabled new offerings such as access to earned wages, especially for people who live from one pay cheque to the next. With technology, they can now get their earnings in real time rather than have to wait.

Additionally, banking as a service (BaaS) is a huge trend in this space where brands can now embed financial services within their ecosystem and provide more access to those who may need it the most. Another emerging trend is moving away from an unbundling of financial services to a rebundling model once again. We saw a lot of fintechs focusing on one aspect of financial services – be it personal loans, home loans, investments. Now we are seeing that rather than becoming good at one aspect of financial services alone, it is now all about bundling the services to create more convenience for the customers. This way the consumer will not have to go to one company for personal loans and another for banking and still another for mortgages. This re-bundling now brings the benefit of going to just one company and getting all your financial services in a digital manner.

Then there is the emerging option of buying and selling digital assets like cryptocurrencies. More and more people who are buying or want to buy digital assets can now do so with emerging fintech players that enable the buying/selling of these assets. This enables consumers to now have access to new asset classes that they can includein their overall financial planning.

Q Banking as a service is a new platform in the realm of digital finance technology that is transforming banking once again. Can you elaborate on how this will benefit the consumers?

Banking as a service is the latest digital finance innovation for collaboration between fintechs and other consumer-oriented companies. It is enabling non-banks, such as brands, to offer a broad range of financial services to their customers.

In the past, banking was very branch-based. Customers opened an account at the closest bank branch as convenience was defined by proximity. Now we are redefining convenience by letting consumers interact and get financial services from companies that they are already interacting with on a daily basis. So a brand that you already have an emotional connection with and are transacting with regularly can now offer financial services. As these brands already have large, loyal customer bases, this additional service definitely brings a strong component of financial inclusion. Further, it enables the consumers to enjoy more accessible and affordable financial services which drives financial empowerment.

Q How do you see this technology changing banking to improve financial wellness for consumers?

Even as banking as a service fosters inclusivity, it also enhances financial wellness in the community. At the most basic level, it provides a new point of access to financial services. By enabling non-banks and large brands to offer financial services to their entrenched base of loyal and engaged customers, it surely improves financial wellness among the consumers. Look at the brands you interact with daily, whether it is your mobile service provider, e-commerce platforms like Amazon or even your grocery chain where you purchase essentials, there is an element of trust, loyalty and engagement with them. When they start offering financial services in the form of new products and services, this will open up a new financial journey for you where you can effectively manage your finances and enjoy a secure financial future.

Q Can you provide more details on the Banking as a service model?

We at BM Technologies have a mission of greater financial inclusion by making banking as affordable, transparent and consumer-friendly as possible. We have found a way to acquire customers at very low cost and at high volumes using our banking as a service strategy. By keeping our costs low, we are now able to deliver financial products that are innovative and low to no fee for our customers. Additionally, we provide tools like budgeting, saving and financial education to our customers through our offerings.

Q What should be done to make digital finance fair for the consumers? How can the authorities tackle the evolving risks in this space?

While I am not well-versed with the fintech landscape in India, I can safely say that financial services are highly regulated. That being said, fintechs are fast moving and innovative and sometimes regulation is slow to catch up to this innovation. These companies tend to not be fully regulated which in some cases may pose a risk to consumers.

The regulators need to catch up with the innovation that is happening right now. Fintech companies can provide a lot of benefits, but, if not thoughtfully executed, their models can also create a lot of inequities and lead to discriminatory practices. This can even happen unintentionally in this space. On the other hand, there are lot of players who have halted and are not offering some innovative, cutting edge services because they are concerned that if they do offer them, the regulators will come in later and have a problem with it. The best path is for regulators to catch up to the innovation taking place so that we can all be in a regulated ecosystem that is monitored and make sure that the consumer is protected.

The onus is on the regulators to begin educating themselves on the innovations in the field even as they are taking place. Accordingly, they should create regulatory frameworks for new product offerings and business models. This will give the innovators the clarity they need and consumers will also feel that they are protected as there is oversight over these products and services.

Q What advice would you give to the consumers about staying safe when using digital finance platforms?

I think it is crucial to be thoughtful and vigilant when engaging with your financial services providers digitally. People are getting phishing emails and text messages all the time these days. As a consumer you have to consider where these messages are coming from when they ask for banking information or access to some personal details. You should know that your bank or financial services provider will not reach out to you in such an unsecure manner. If you are doing digital banking or other transactions on a digital platform, make sure that you are only using secure wi-fi and not an open network. It is most important to keep changing your passwords periodically for accessing different financial services.

Don't let digital finance become another pain point in your financial future but rather a tool to empower your financial life!

Pyush Misra
Trustee,
Consumer Online Foundation

Glaring Gaps in Regulations for Fintech Industry

"Fintech is manifesting new consumer risks that have to be mitigated by robust regulations to be able to benefit consumers in the true sense. However, the regulators are in a severely challenged position which manifests as glaring gaps in the regulations"

– opines *Pyush Misra*

TECHNOLOGICAL INNOVATIONS FIRST entered the financial sector in the form of credit cards, followed by ATMs and electronic stock trading. The advent of the internet and the resulting online revolution led to the spurt of e-commerce, online brokering and the most ground-breaking of all – internet banking! The emergence of smart technology witnessed a pioneering initiation of online payment platforms, payment gateways, digital wallets and mobile money. There is an influx of digital microcredit, peer-to-peer-lending and e-money as well.

Humans are quick to adapt to the most disruptive of technologies – paying using QR codes, comparing insurance online, applying for online loans and accepting digital payments is becoming second nature to most of us. We are even opening up to the prospects of investing and trading in cryptocurrencies. And we may soon find ourselves using digital rupees in our day-to-day transactions!

Description	Company
Mobile wallet for consumer payments AmazonPay, FreeCharge	PayTM, MobiKwik, Google Pay, PhonePe, BharatPe,
Payment Gateway	Billdesk, CitrusPay, Instamojo, CCAvenue
Rewards-based platform for credit card bill payments	CRED
Insurance platform for individuals	Digit Insurance, Coverfox, RenewBuy
Online insurance comparison platform	PolicyBazaar
Tech-enabled automotive insurance	Acko
Online platform for point-of-sale financing	ZestMoney
Online platform providing working capital for SMEs	LendingKart, FlexiLoans
Alternative lending platform focusing on SME, consumer & personal, home and education loans.	InCred, PaySense, Dhani, MoneyTap
PoS software solutions for offline retailers	Pine Labs
Cryptocurrency	Zebpay, UnoCoin
Personal finance management	ScripBox, Fisdom, MoneyView, ClearTax

Now, all types and sizes of financial service organisations are prioritising digital strategies that enhance customer experience, while also creating opportunities for future innovation.

While the benefits are huge, these fintechs are actually a double-edged sword. They open up a new world of risks to the consumers while augmenting the existing ones. What started as leakages of credit card, debit card and account information has amplified into frauds, privacy breaches and other cybersecurity risks. Indeed, digital finance services are the primary focus of cyber attacks and also remain one of the most susceptible sectors. The digital data trail is ever-expanding, with data being collected through mobile transactions and even call records. Therefore, security of data has become another key concern. There have been varied instances of fraudulent app-based digital lenders as well.

A robust regulatory environment is essential to provide a solid foundation for the fintech sector. (See Figure 1)

Global Regulations

Many regulators in different parts of the world are doing their best to police the burgeoning fintech sector. It is not just about regulating the impact on the finance industry, but also checking the implications on financial stability and consumer interests.

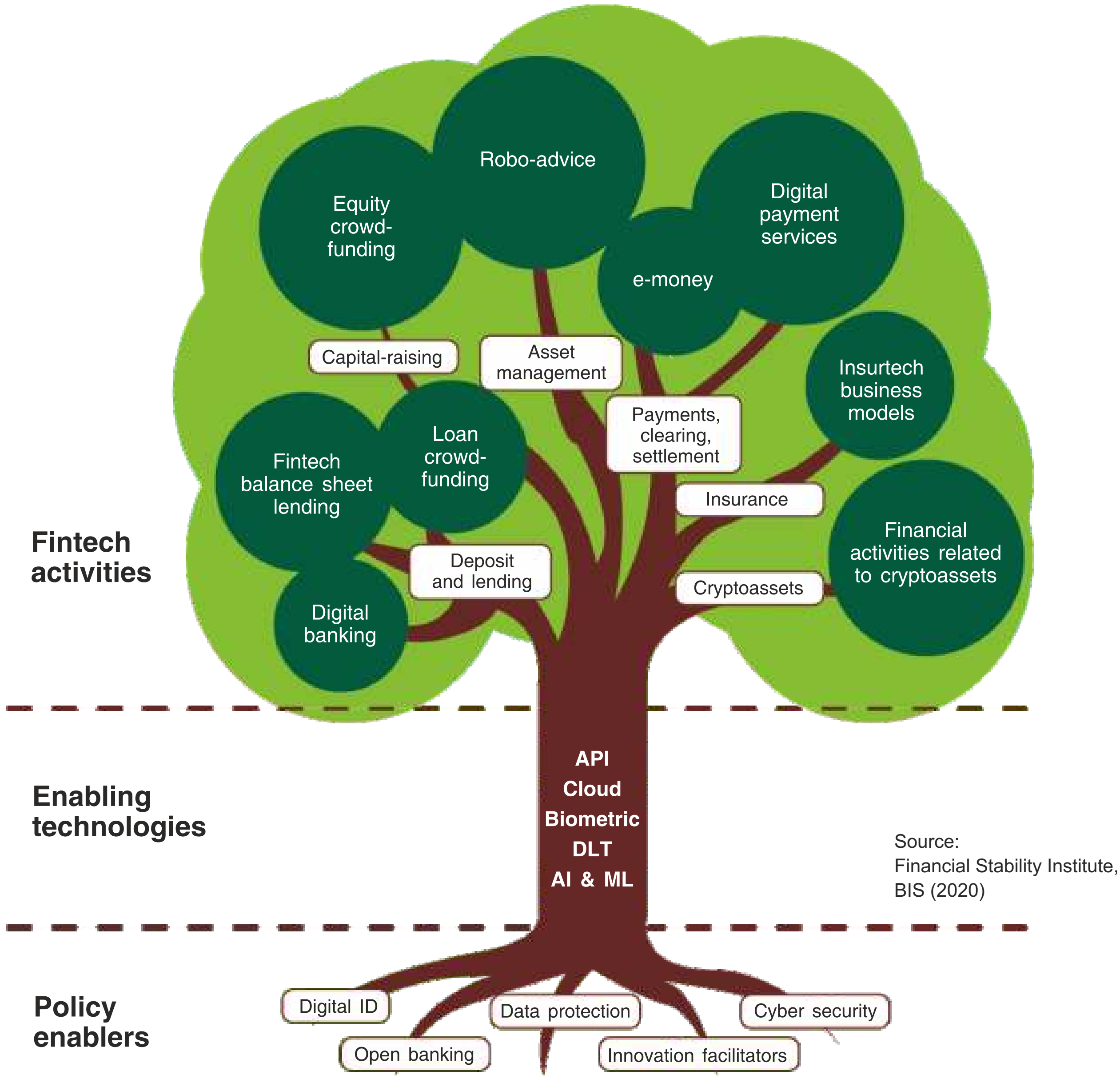
A survey commissioned by the Bank for International Settlements (BIS) reveals that while most of the countries do not have a dedicated regulatory regime for fintech lending, many have instituted controls over digital payments and crowdfunding. The existing regulations for digital insurance are broadly sufficient. However, when it comes to enabling technologies, most regulators have only tweaked existing guidelines to include tech-specific elements.

Regulators are particularly active on application programming interfaces (APIs), cloud computing and biometric identification. The most common regulatory responses to crypto-assets are warnings and clarifications, with only a few having crypto-specific licenses. For artificial intelligence, machine learning and distributed ledger technology (DLT), regulatory action is limited to risk assessments and issuance of general guidance.

The Current Limitations

The rampant evolution of financial technologies is posing unprecedented challenges for the financial regulators. It is extremely difficult for policymakers to keep up with the latest technological developments to draft the fintech laws

Figure 1: FinTech Tree Highlighting the Role of Regulation



accordingly. The biggest trial is to understand the upcoming fintech innovations and decipher the risks before instituting appropriate security regulations. Meanwhile, they are also called on to take actions to promote the services in the society!

In a recent World Bank Group survey, regulators identified their limited internal technical expertise as the foremost impediment to regulating and supervising 'alternative finance' such as peer-to-peer-lending and equity crowdfunding effectively.

To add to this, fintech firms are coming in new shapes and forms; it is not easy for the regulators to touch down on the appropriate risk-based supervision for them. It is even possible that the role of traditional banks will decline eventually; this will require the apex bank to increase the number of counterparties to their operations in money markets for effective monetary transmission.

On the other hand, the financial institutions may be expanding their digital services and even have payday loan apps, but many of them lack sufficient tools for debt counselling. Over-indebtedness is becoming a common occurrence. Moreover, most of the fintechs themselves are struggling to keep up with the rampant cyber risks.

Conclusion

Consumer protection mechanisms in financial services are being outpaced by fintech developments. Regulators will take time to catch up, by when they may just be beaten by still more new developments!

Stacking Up Digital Access to Finance – The India Stack Way!

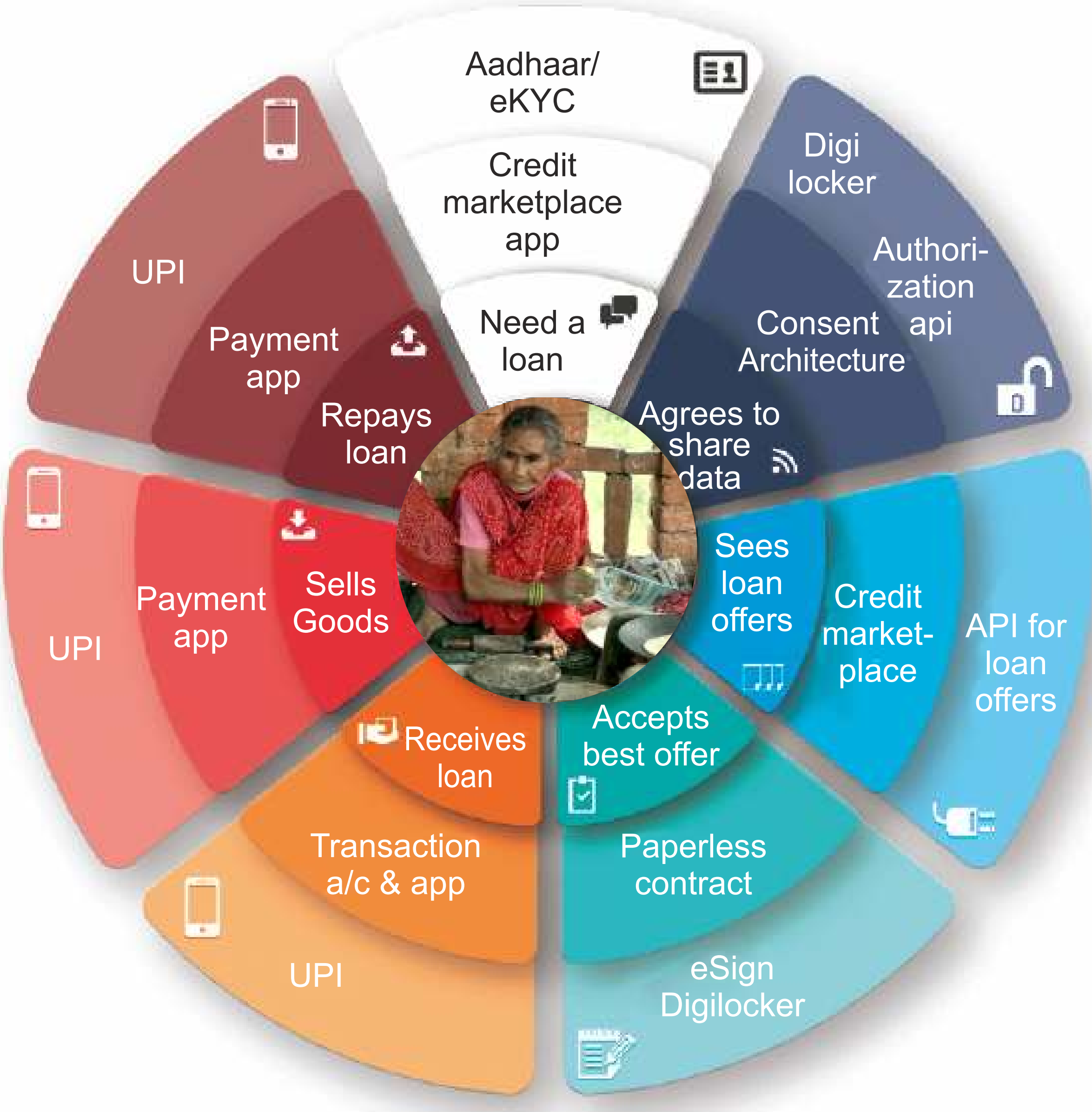
India has become a fintech pioneer, courtesy the revolutionary India Stack, which has set the stage for the digitisation of the entire country. This is widening access to financial services, stabilising incomes, driving sales and boosting the economy. It has become a boon for the poor and informal sector, but is it really affording everyone a foothold in the digital economy?

IT IS UNBELIEVABLE, but true! India boasts of a national digital infrastructure where government ministries, bureaucrats, regulators, payment companies, banks, nonbanking financial services companies, fintech organisations and the citizens are working together in what is known as the India Stack. This is a unique software launched by the Government of India that mobilises the immense technologically-innovative talent of the country riding on an open API policy.

While the stack comprises of all the technologies and other tools – like computer languages, architecture, lexicons, servers, user interfaces, experiences, APIs, etc. required to connect the databases and operate an app, the open Application Programming Interface (API) provides programmers with programmatic access to these propriety software applications.

India Stack is a set of APIs that allows governments, businesses, startups and developers to utilise a unique digital infrastructure to solve India's hard problems towards presence-less, paperless and cashless service delivery.

Each solution is enabled by the Indian Stack



India's comprehensive national identification, digital payment and data management infrastructure

The India Stack is actually a collection of tech projects with four distinct layers:

Presence-less Layer – The biometric data of the citizens is stored to create a universal digital identity. It comprises of the Aadhaar card and is operated by the Unique Identification Authority of India (UIDAI). Aadhaar gives a 12-digit unique identification number to each individual based on their biometric readings. This digital ID can be used to quickly authenticate user identity, thus allowing him/her to participate in any service from anywhere in the country. More than 1.31 billion (95%) Indians possess an Aadhaar number.

Paperless Layer – This is all about storing digital records of a person's identity, thus eliminating the need for paper collection and storage. It includes Aadhaar e-KYC (launched in 2012), e-Sign (launched in 2014) and Digilocker (launched in 2015), owned by the Department of Electronics and Information Technology. The electronification of Know Your Customer (KYC) data eliminated the need to give physical copies of proof of name, date of birth, address, etc. making the verification process cheaper and quicker. E-Sign allows users to produce legally valid digital signatures on any deal, contract or other document while Digilocker works as an online repository for all legal documents and certificates - birth certificate, mark sheets, driving licence, property papers, etc. - in digitised format that can be accessed from any part of the country. Therefore, verification of digital documents has become possible, thus increasing efficiency and integrity, be it in getting a SIM card or opening a bank account. All these services are linked to Aadhaar and can be accessed through an OTP sent to the user's Aadhaar-linked mobile number.

Cashless Layer – This presents a single interface for all the bank accounts and online wallets in the country. The electronic interoperable payment network is owned by the National Payments Corporation of India (NPCI) and includes IMPS, AePS, APB and UPI. The latter - Unified Payment Interface (UPI) - has revolutionised digital transactions and trade in India by enabling banks to exchange messages and payment orders with non-bank firms. Therefore, users can make real time payments directly from their bank accounts via their mobile phones with only biometric inputs, at essentially no cost. Launched in 2016, this homegrown real-time mobile payments system has grown to become the world's fifth largest payment network by volume, behind only Visa, Alipay, WeChat Pay and MasterCard. Over 100 million UPI QRs have been deployed in the market for accepting merchant payments.

As per NPCI, UPI has emerged as a dominant digital payment choice, with over 22 billion transactions registered during FY21, a growth of four times over the last three years. In fact, monthly transaction volumes on UPI crossed 4 billion in 2021.

NPCI BHIM UPI Stats *Data as of November 2021*

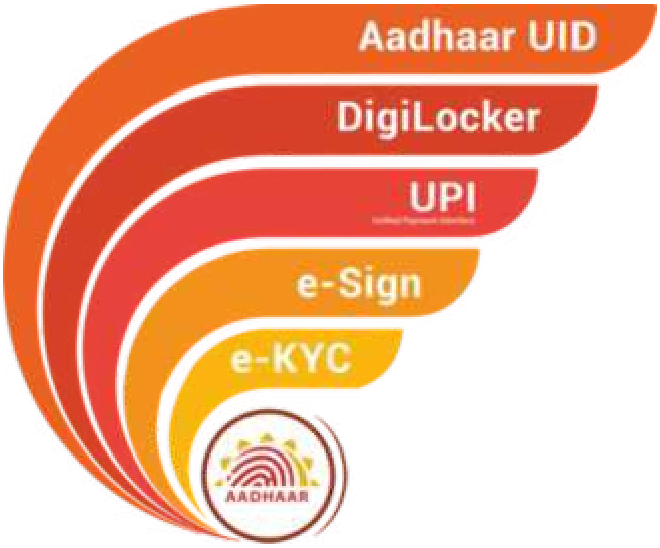
274
Number of Banks live on UPI

4,186 million
Volume of payment done

AePS inter-bank transactions are also growing, registering a nine-fold growth in FY 2021, over the past four years.

Consent Layer – This deals with the security and control of personal data through a modern privacy-protected data-sharing framework which is owned by the Reserve Bank of India. Enshrined in the Data Empowerment and Protection Architecture (DEPA), this aims to restore the ownership and control over user data to its rightful owners. It will be achieved by necessitating consent before the account aggregators (that intermediate the flow of data) can process the personal data. They can access, manage and move the consumers data on their behalf only upon their request. It is still in the development stage; in 2021, the account aggregator framework went live with 8 banks, with the RBI licensing the account aggregators. The personal data protection bill, which is still in the works, is the much-required nudge which can make this layer a reality.

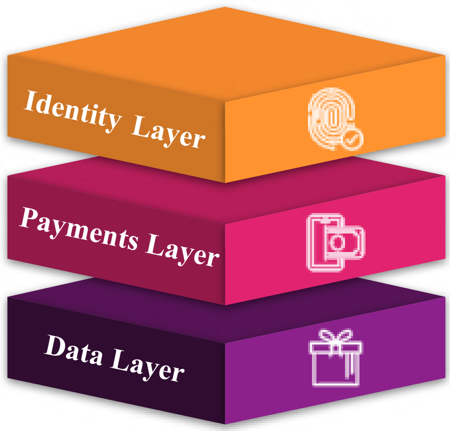
India Stack has emerged as the largest open API in the world, encompassing identity, payments and other services. It essentially amalgamates the identity and authentication powers of Aadhaar with the digital payments via APIs to deliver financial inclusion, connectivity and convenient fintech to the consumers.



Aadhaar is a cornerstone of the India Stack, enabling India to go cashless and paperless

There's no other tech stack in the world that has a prefix with a country's name. It's a unique convergence of government, technology and regulatory frameworks. - Sri Shivananda, PayPal's CTO based in San Francisco

India Stack is a set of technologies ...



Identity Layer
Giving every resident a unique id and enabling them to prove "I am who I claim to be"

- Aadhaar
- eKYC
- eSign

Payments Layer
Allowing anyone to pay anyone else! interoperable, fast and cheap - not just smartphones

- Unified Payments Interface
- Aadhaar Payments Bridge
- Aadhaar Enabled Payment Service

Data Empowerment
To enable secure sharing of data

- Consent Artefact
- DigiLocker
- Account Aggregator

67 billion
Total number of digital identity verifications

5.47 trillion
INR total value of monthly real-time mobile payments

2.8 billion
Total volume of monthly real-time mobile payments

4
Operational Account Aggregators

The India Stack story

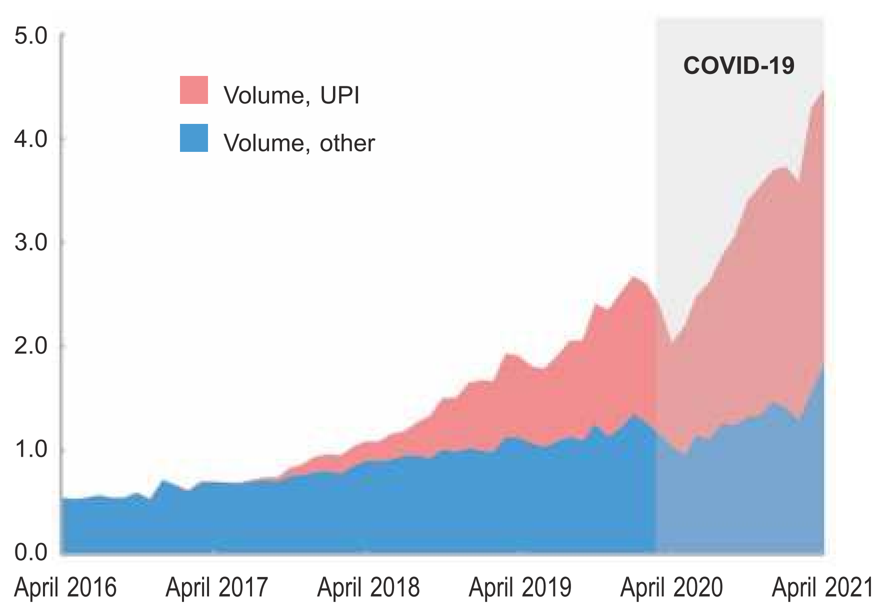
Multitude Benefits

This novel initiative by the government has given formal identification credentials to almost all the citizens and ushered millions of rich and poor into the digital economy. For instance, now a consumer can apply for and get a loan almost instantly through the various public platforms for verification – his financial records are substantiated from the cloud storage Digilocker, identity is authenticated through e-KYC and e-Sign is used to attach his signature on the documents. After the loan is processed, the money is immediately disbursed into the linked back account through UPI. There is no need for standing in queues, filling forms, submitting documents, waiting for approvals and so on! Consumers actually get loans in just a few minutes while sitting in the comfort of their home or office. What's more, loan repayments can be done through the same UPI again.

UPI is playing a pivotal role in virtualising accounts and facilitating consumers to undertake merchant payments and fund transfers. It delivers a superior end-user experience - there is

Rising Retail Payments through Digital Wallets

The Unified Payments Interface has expanded rapidly.
(billions of transactions)



Source: National Payments Corporation of India

UPI has expanded rapidly and is channelling most of the small domestic retail payments

no need to fund any kind of intermediary wallet; a separate UPI PIN and Virtual Payment Address (VPA) brings additional security; UPI apps allow payments via QR codes as well.

Around 200 banks are already plugged into the UPI system! RBI uses it for its own BHIM e-wallet and another estimated 50 companies leverage it for their own wallets. The government is now revamping the underlying tech to reach a goal of 1 billion UPI transactions a day.

NPCI recently introduced a new digital payment mode on UPI called e-RUPI as a single-use digital payment solution (represented by an SMS-string or QR code) that is specific to a person and purpose. This electronic voucher system can be used for donations, gift vouchers or even Covid vaccine subsidies.

Cascading Opportunities

India Stack has made it infinitesimally easy to build software and create businesses around its readily available infrastructure. This is opening up new opportunities in financial services, healthcare and education as both new and existing players can create their own products without having to build their own digital infrastructure.

Going ahead, once OCEN (Open Credit Enablement Network) goes live, India will have built three distinct 'rails' or utilities: UPI for payments, account aggregators for data and OCEN for credit. Government and businesses can ride these rails to transform the way they work, giving consumers access to faster and more targeted services.

In fact, India Stack is poised to go global with many developing economies finding the platform-first model useful and relevant. In November 2019, Google wrote to the US Federal Reserve, advising it that the India payments model of UPI should be adopted for FedNow, the instant payments system in the US. In fact, CEO, Sundar Pichai is eager to apply the learnings from Google Pay's experience in India to global markets.

Global technology companies that are deploying India Stack in the country can also be persuaded to take these services abroad. However, for this, India Stack will need to be compatible with global payment networks, like PayPal, VISA or Mastercard. Through this, it can also function as a ramp for Indian companies to do business abroad. Small businessmen will benefit the most as it will expand their markets globally.

Situation On The Ground

The numbers and coverage may sound big, but the fact remains that India is still mostly a cash economy. Amazon Pay states that 90% of our transactions are still settled in cash. Just about one-third of the population has a smartphone.

There have been hiccups like government agencies unwittingly revealing millions of Aadhaar numbers on their websites. There was an uprise of fake Aadhaar enrolment apps and login credentials for accessing user data to make money.

The storing of biometric data is still considered controversial on account of the potential for fraudulent use, not to mention the notion of surveillance by the government.

The International Monetary Fund in its review of India Stack questions, “The India Stack ecosystem is vast, allowing existing financial intermediaries, as well as big tech firms and new fintech companies, to compete. But it is also mindful of the need for stability to underpin public trust, subjecting these diverse participants to regulation. Could the costs of complying with regulation be a barrier to entry for smaller firms?”

Conclusion

India Stack is disrupting the world of digital finance for good. The question still remains whether Indian consumers can make all their transactions digital and can India become a truly cashless economy? Moreover, the synergies should be spread to support insurance, wealth management and other financial products as well.

Payal Agarwal
Editorial Consultant

DIGITAL FINANCE REVOLUTIONISING DELIVERY OF GOVERNMENT INTERVENTIONS

"Digital technology is not only changing the face of financial services in the country, the benefits are even being exploited by the government for its various welfare schemes. This is driving holistic growth and inclusion in the country with an impressive fast-forward of financial development"

– observes *Payal Agarwal*

Universal access to banking facilities by way of Jan Dhan accounts enabled by digital technology

THE CENTRAL GOVERNMENT has been leveraging digital finance for serving the unserved and underserved sections of the population. Powered by financial technology, the direction of government interventions has undergone a sea change, leading to the emergence of a buoyant ecosystem that is delivering financial services to the poorest of the poor.

The Backdrop

Access to banking is a crucial parameter for gauging the economic development of a nation. Every government of independent India has been striving to ensure that all citizens have a bank account, but were impeded by the lack of officially verified documents to confirm their eligibility. According to the NSSO 70th round (January-December 2013) survey on Debt and Investment, only 68.8% rural households and 79.5% urban households had deposit accounts in banks. According to another study, less than 50% Indians had a bank account in 2014.

The benefits of a Jan Dhan account are varied. The accounts are opened with minimal paperwork and simpler KYC norms. Account holders enjoy zero minimum balance and can even get an overdraft facility after 6 months (initially Rs. 5000, now raised to Rs. 10,000). They get regular interest on the account as per the specific bank's savings account interest rate. A minimum balance has to be maintained to get cheque book facility.

The accounts remain free of charges for account opening, loan processing, etc. Online banking facility is proffered and users can easily check their balance and transfer money using a mobile phone. The Jan Dhan accounts are eligible for Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY) and Micro Units Development & Refinance Agency Bank (MUDRA) scheme.

Additionally, account holders also get a RuPay debit card which can be used for easy cash withdrawals at ATMs and making cashless purchases at merchant locations through PoS payments. The indigenous card comes with a free accidental insurance cover of Rs. 1 lakh (increased to Rs. 2 lakh from August 2018) and a life insurance coverage of Rs. 30,000. Bank officials are charged with educating the illiterate RuPay Card holders about how to use it and ensure safety at all times.

Pradhan Mantri Jan - Dhan Yojana

Beneficiaries as on 19/01/2022

(All figures in Crore)

Bank Name / Type	Number of Beneficiaries at rural/semiurban centre bank branches	Number of Beneficiaries at urban metro centre bank branches	No of Rural-Urban Female Bene-ficiaries	Number of Total Bene-ficiaries	Deposits in Accounts (in Crore)	Number of Rupay Debit Cards Issued to bene-ficiaries
Public Sector Banks	21.93	13.16	19.35	35.09	121284.46	26.87
Regional Rural Banks	7.10	1.03	4.70	8.13	31533.77	3.43
Private Sector Banks	0.70	0.59	0.70	1.29	4637.58	1.10
Grand Total	**29.73**	**14.78**	**24.76**	**44.51**	**157455.82**	**31.40**

Disclaimer: Information is based upon the data as submitted by different banks

Source: https://pmjdy.gov.in/

The Pradhan Mantri Jan Dhan Yojana (PMJDY) was launched in this scenario in August 2014 with a seemingly over-ambitious financial development mission of providing a bank account to each and every household in India. It aimed to extend easy access to banking facilities such as remittance and credit along with insurance and pension for the poor and needy consumers of the society who did not have a bank account till date.

Any Indian citizen over 10 years of age without a bank account can open a Jan Dhan Yojana account in any of the participating public or private sector banks by submitting the form along with Aadhaar card, voter ID card, passport, driving license, government-issued identity card or even just a letter with a duly attested photograph issued by a gazetted officer. In case an individual does not possess any of the valid documents, he or she can still open a 'Small Account' by submitting a self-attested photograph which will be valid for 12 months. After this period, the required documents have to be submitted to continue the account.

In fact, from 2018, the focus has been expanded from opening accounts for 'every household' to 'every unbanked adult'. And the success of this largest financial inclusion scheme in the world has been unparalleled, reaching the remotest and poorest of the country. Over 4 crore bank accounts were opened in the first month itself. The number rose to 16.6 crores at the end of the first year and 38.4 crores by 2019. 44.51 crore beneficiaries have been banked so far with Rs.157,455.82 crore balance in their accounts. More than 55% of the account holders are women while over 67% of the accounts are in rural or semi-urban areas. Moreover, more than 86% of the accounts are active. A whopping 31.4 crore RuPay cards have been issued to the account holders.

A Bank Mitr is appointed as an agent to provide banking services at low cost in a sub-service location where establishing a brick and mortar branch is not feasible. Currently, 1.26 lakh Bank Mitras are delivering branchless banking services.

The Digital Connect

PMJDY is implemented through a digitised pipeline wherein the Jan Dhan accounts are linked to Aadhaar and mobile numbers, with this JAM trio serving as the backbone for facilitating savings, disbursing credit and providing social security. Aadhaar serves as the means of identification for registering beneficiaries while their mobile numbers facilitate easy and direct communication via SMS and mobile banking.

This is also serving as a conduit for swiftly and seamlessly channelising financial subsidies and other social welfare benefits of the varied government schemes - the money is now directly credited into the newly opened bank accounts. In fact, it has always been believed that barely 15% of the benefits announced by the government trickle down to the recipients while more than 85% are gobbled up by the bureaucrats and other middlemen! It is the digital technology of Direct Benefit Transfer (DBT) which has finally managed to eliminate both the scavenging middlemen and endemic corruption so that the beneficiaries can truly enjoy 100% of their entitlements! Even the International Monetary Fund estimates that switching from cash to electronic delivery of government benefits generates roughly 40% in savings per transaction.

Around 433 schemes across 56 ministries – Public Distribution System, PM-KISAN, PM Awas Yojana, PM Jan Arogya Yojana, MGNREGA, National Social Security Assistance Programme, etc. – are onboarded on the DBT and Aadhaar platform, thus resulting in a paradigm shift in digital transactions and driving leak-proof delivery. Over 8 crore Jan Dhan account holders have received DBT of over Rs. 18 lakh crore under various welfare schemes in the last 7+ years. During the first COVID-19 lockdown itself, almost Rs. 31,000 crore was credited into the Jan Dhan accounts of women under the PM Garib Kalyan Yojana. More than 20 crore female accounts were credited ex-gratia within the first 10 days of the lockdown itself. Monetary assistance for the cooking gas component of the Mid-Day Meal Scheme was also disbursed to 11.8 crore students through DBT. All this without even a single rupee being lost to corruption!

In fact, the PMJDY further envisages extending the inherent transparency by channelling all benefits from centre, state and local bodies directly to the beneficiary accounts by way of DBT, thus plugging all the leakages in the system.

And the account holders can easily access the financial aid they receive from the government through the RuPay cards or smartphones. Aadhar Enabled Payment System (AePS) transactions are further empowering interoperability and becoming a force multiplier. Jan Dhan account holders can even withdraw money at the micro-ATMs just by using their Aadhaar number and fingerprint. According to the National Payments Corporation of India (NPCI), the value of transactions through AePS has nearly doubled from Rs. 112.87 billion in January 2020 to Rs. 219.78 billion in January 2021.

Finally, the marginalised and unbanked folks have a means to escape the inexorable clutches of the unconscionable moneylenders who charges atrocious rates and interest and the push to invest in Ponzi schemes. They are now empowered to save, remit money and avail loans through the formal financial system.

More in the Offing

Jan Dhan 3.0 will focus on doorstep banking, digital financial products and convergence with the pension and insurance schemes. Work is ongoing for simplifying loan applications and providing quicker response to loan requests by way of digital technology. Banks are being called on to further leverage the JAM trinity to come up with new analytics-based offers for their customers. They are also being encouraged to find linkages to converge the Jan Dhan accounts with other schemes such as Atal Pension Yojana, Stand Up India, PM SVANidhi scheme and Sukanya Samriddhi Yojana.

PM Modi has further called on the banks to have at least 100 clients with 100% digital transactions at each branch before 15thAugust, 2022. In his address at the 'Creating Synergies for Seamless Credit Flow and Economic Growth' conference, the PM remarked, “Banks at branch level can decide to approach at least 10 new youths or local micro, small and medium enterprises in their vicinity to help promote their enterprises.”

The government is incentivising digital transactions from the vendors end too by providing various tax and non-tax benefits. The PM SVANidhi scheme offers a cashback incentive to street vendors for adopting digital transactions. Vendors who onboard BHIM, Paytm or Google Pay can receive a monthly cashback of Rs. 50 to Rs. 100. Another Rs 1,300 crore incentive scheme was recently approved wherein the government will reimburse transaction charges levied on digital payments made by persons to the merchant (P2M) as part of the merchant discount rate (MDR). UPI will continue to be free for small merchants for another year which will go a long way in deepening the adoption of digital payments across the country through use of economical platforms.

Conclusion

Digital finance has enabled the strengthening of the financial delivery mechanisms and enhanced the efficacy of social welfare schemes for the erstwhile financially excluded segments of the population.
The poor are getting their rightful money while the economy is becoming cleaner. Above all, banking has almost been universalised and true financial security is finally becoming a reality for even the very last person of the society. However, true financial inclusion can be celebrated when the accounts actually witness an increase in savings and access to formal credit.

Need to Rethink Rules of the Digital Lending Game

Digital lending is driving the financial landscape today. However, ethical conduct, reasonable selling practices and secure treatment of customer's information remains crucial in the fintech arena as well. For instance, consumers should be able to easily access and control how the loan apps use their data. A balanced framework is essential to encourage innovation while protecting consumers and minimising risks to the financial system.

The rise in non-performing loans, even before the COVID-19 crisis, has been associated with an increase in digital credit – German Development Institute

FINTECH IS DRIVING financial markets across the world by expanding access to finance, especially for the traditionally underserved consumers. Digital lending is on the rise and may very well render traditional bank financing obsolete in the future. A recent Consumer Financial Protection Bureau study found that digitally enhanced scoring resulted in 27% more loan approvals with 16% lower interest rates across all customer segments. The digital lending space has grown 12 times between FY17 and FY20. (RBI data).

There is a proliferation of various lending models in the digital lending space. There is mobile banking where traditional loan products are provided through a mobile banking interface, credit services provided by non-financial institutions (such as e-commerce platforms), digital microcredit, peer-to-peer lending and even investment-based crowdfunding.

Digital microcredit loans are usually of low value and given for short terms, but the fees tends to be high. There is little to no human interaction as they are directly accessed via remote digital channels, usually app-based lenders. The application and approval process is exceptionally quick with automated credit decisions based on algorithmic processes that may even generate an alternative credit score for determining the risk profile.

Peer-to-peer lending, marketplace lending or loan crowdfunding involves mobile platforms matching borrowers who need funds with potential lenders who are willing to provide funds for a financial return. This kind of provision is typically unsecured, amortizing loans. On the other hand, investment-based crowdfunding serves as an alternative source of finance for small enterprises. The online platform issues securities (debt or equity) to the 'crowd' of potential investors looking to invest small sums of money. Therefore, it is merely facilitating the individual contracts and does not undertake risk transformation.

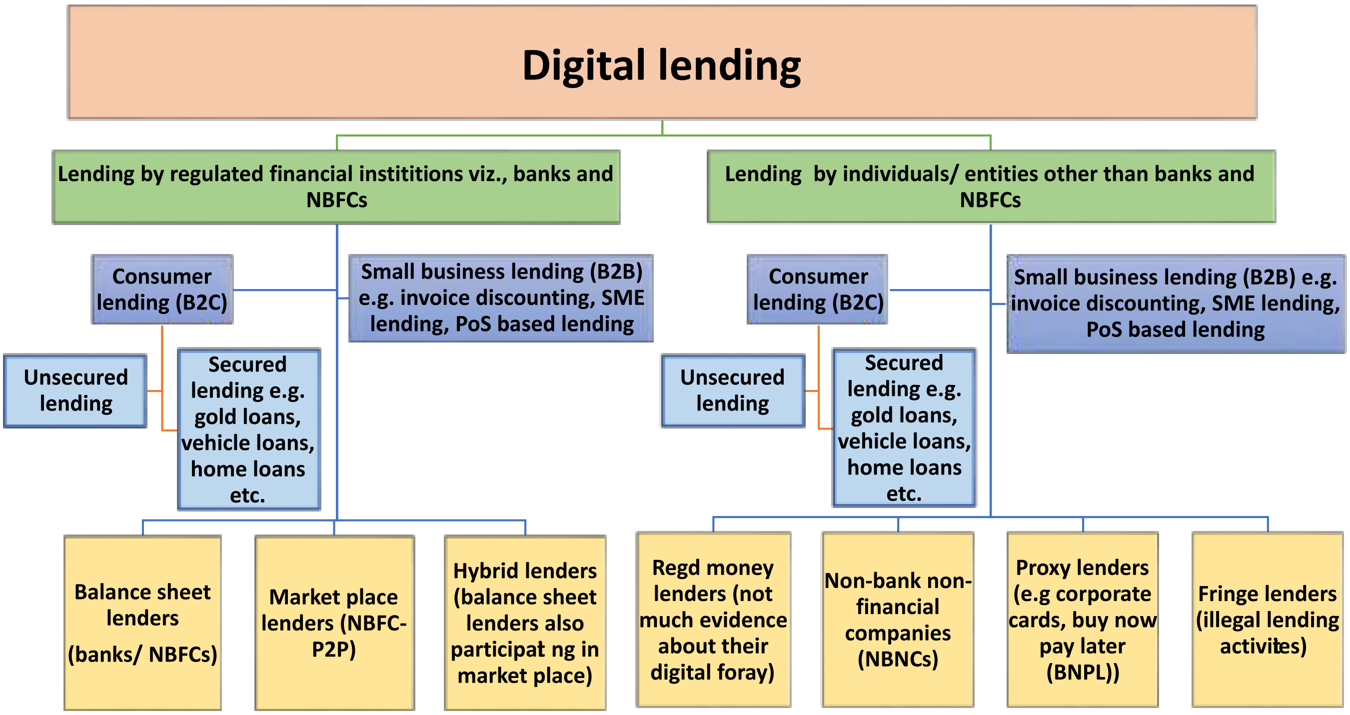
The common thread across fintech credit options is that digital technologies make the entire process – from credit assessment and loan approval to loan disbursement, loan repayment and customer service – seamless and intuitive.

The Indian context

The digital lending ecosystem is still evolving in India. NBFCs are at the forefront of partnered digital lending; banks are also quickly adopting innovative approaches in digital lending. The RBI Report of the Working Group on 'Digital Lending including Lending through Online Platforms and Mobile Apps' released in November 2021 reveals that lending through digital mode is still at a nascent stage in the country. Banks disbursed Rs. 1.12 lakh crore via digital mode vis-à-vis Rs. 53.08 lakh crore via physical mode while the NBFCs fared a higher proportion with Rs. 0.23 lakh crore being disbursed via digital mode vis-à-vis Rs. 1.93 lakh crore via physical mode. (Based on data received from a representative sample of banks and NBFCs - representing 75% and 10% of total assets of banks and NBFCs respectively - as on 31st March, 2020). (refer Image 1)

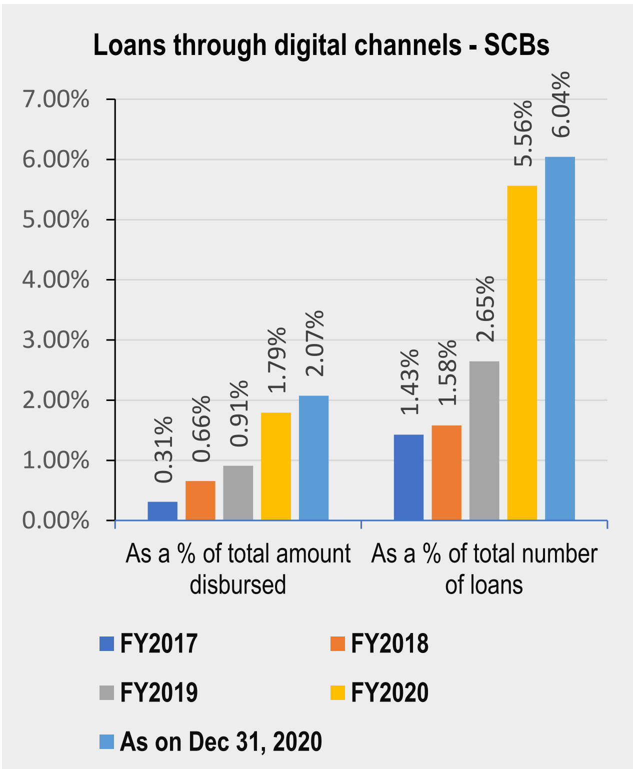
The report further details that private sector banks and NBFCs are the dominant entities in the digital lending ecosystem (refer Image 2).

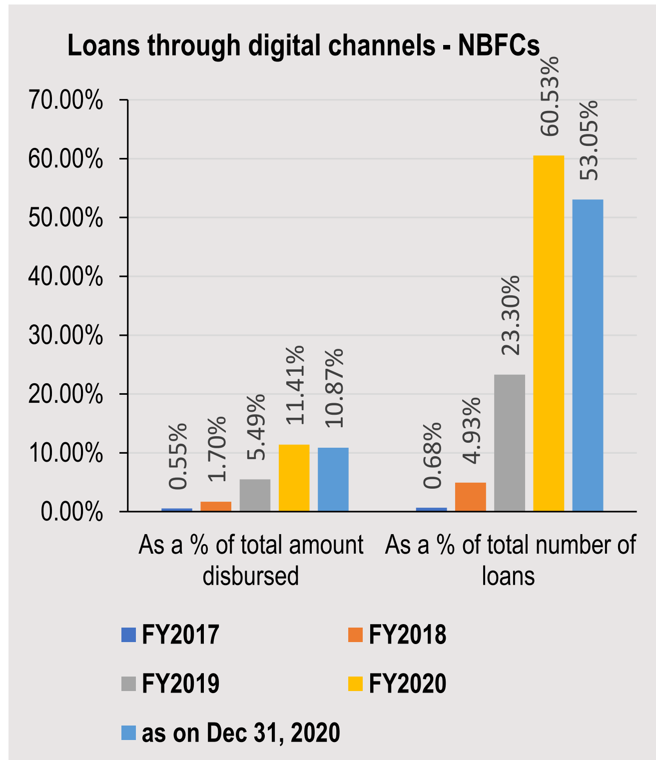
Here it is observed that the public sector banks largely depend on their own websites/apps for disbursing the



Digital lending taxonomy in a universal context (Source: RBI)

IMAGE 1

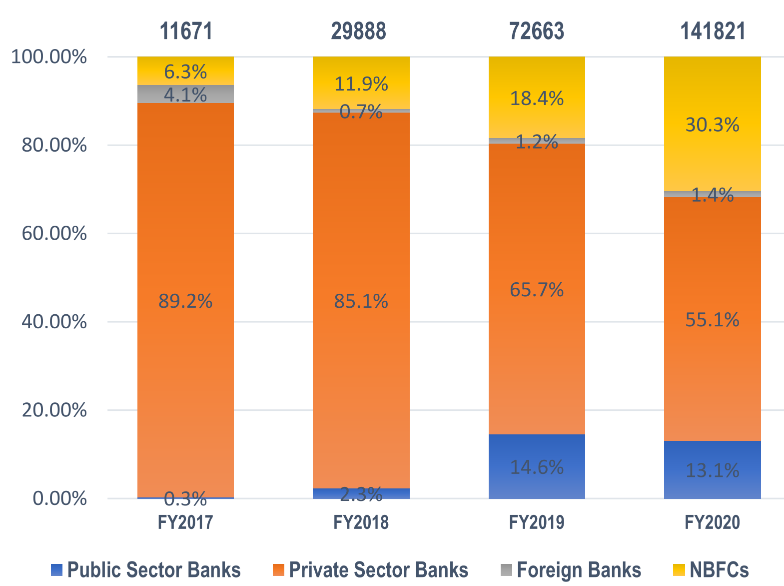




Source: *Analysis based on representative data collected from banks and NBFCs*

IMAGE 2

Share of different lenders in loans disbursed through digital channels (Amount in ₹ crore)



Source: *Analysis based on representative data collected from banks and NBFCs*

digital loans, making them more secure. Whereas most of the private sector ones depend on outsourced/third-party apps; most of their digital lending portfolio is also unsecured. NBFCs disburse their loans through both their own and third party digital channels.

The Menace of Fake Apps

Consumers usually search on online search engines or browse app stores using related keywords to find the digital lending apps

(DLAs). Or they may come across the app information on marketing materials circulated by SMS, email, online advertising or on messaging platforms.

The procedure is as follows - Users download and install the app before registering by giving their mobile number, email address and other details. The apps require various permissions which gives them access to other apps and services on the mobile device. Then comes the loan application which calls on the user to provide still more information apart from the app becoming privy to the credit score, banking information and other history. Once the applicant chooses a loan product, the app may gain access to the user identity verification data. And when the loan is approved, the user may even e-sign the documents.

Do the users spare a thought to how their personal/online behavioural data may be shared with third parties when they blindly accept the terms and conditions of the DLAs? Some of the permissions are high-risk as the platforms can harvest the phone contacts, media or gallery. All this coupled with the loan application opens a lot of sensitive personal information and financial records that is ripe for misuse were it to fall into the wrong hands.

The harsh reality is that there are scores of illegal and copycat apps in the cyberspace and users are unaware whether the DLA they are downloading is legitimate or not. The illicit ones can easily compromise user accounts, steal their identity, carry out phishing attacks and a lot more. The RBI Working Group reported that there were approximately 1100 lending apps available for Android users in India across 80+ application stores (1st January to 28th February, 2021). (refer Image 3)

In fact, many DLAs owned and managed by operators in China were reported to practice aggressive lending and collection which even led to a spate of tragic suicides. Last year, the Telangana police busted a scam of Rs 21 crore involving instant online loan apps and arrested three Chinese nationals These apps levy high rates of interest – they dupe consumers by advertising a miniscule interest of 0.98%, but this rate is per day and adds up to 66%annually. The defaulters are sent WhatsApp messages with fake case numbers showing that an FIR has been registered. They don't care for the creditworthiness, relying on social shaming to the extent of threatening female contacts of the victim to pay on their behalf.

IMAGE 3

No. of App Stores in which Indian loan apps are available	81
No. of unique Indian loan apps that have the keywords: loan, instant loan, quick loan, etc.	1100
No. of illegal loan apps	600

India accounts for the most number of DLAs in the world!

The report enumerates the common privacy lapses observed across digital lending apps:

- Inadequate transparency about what information is collected, why it's collected and how it will be used.
- No option for users to update, manage, export and delete their own data after their loan has been paid.
- Some apps don't disclose their partner banks or NBFCs.
- Recovery agents use borrowers' phone data to harass them/their contacts in case of delays in repayment.

The RBI established a separate portal, Sachet (https://sachet.rbi.org.in/) under the State Level Coordination Committee (SLCC) mechanism for lodging complaints related to deposits/schemes. It even issued a press release in December 2020 cautioning the public against unauthorised digital lending platforms/mobile apps. The portal received around 2562 complaints against DLAs from January 2020 to March 2021, with the majority of the complaints pertaining to DLAs promoted by entities that are not regulated by the apex bank.

The Trap of Predatory Lending

Digital lending has expanded access to credit manifold, however even the number of borrowers who are unable to repay their loans is swelling. The apparently beneficial low barriers to entry for accessing credit can itself become a millstone round the consumers' necks. They end up making poor or reckless choices which transforms into over-indebtedness and can even lead to bankruptcy.

The fintech realm seems to be perpetrating irresponsible lending practices by way of lax pre-agreement borrower assessment policies, lending beyond the repayment capacity (lend-to-learn model), lack of full disclosure about the loan product, new lending class/vocabulary and roll over loan options that is opening up a debt trap for the borrowers. For instance, the DLA may reveal information about the complete pricing of the loan only after the transaction has been finalised, when it is already too late to use that information effectively.

The World Bank Group research on Consumer Risks in Fintech lists some of the digital lending drawbacks:

- Information about pricing is incomplete and not transparent (for example, range of different methods used to convey pricing, finance charges not disclosed separately from principal and fees for third-party charges not disclosed)
- Inadequate access to complete information about terms and conditions (T&C) - for example, links to full T&C provided at separate location

In fact, the rapid expansion of the peer-to-peer lending market in China in the first half of the 2010s was followed by incidents of fraud, platform operator

Factors responsible for the growth of Digital Lending

- Technology
- Cost Reduction
- Security
- Increased focus in customer experience
- Disbursal Time
- Smooth and hassle-free process
- Introduction of e-KYC
- Government Initiatives

misconduct and even significant platform collapses that caused significant losses to consumers.

Fair practices and transparency – like communicating the total cost of the loan and other key aspects of the loan in simple terms – is crucial for empowering the consumers to make informed financial decisions. For example, testing in Kenya supports that consumers can better comprehend the loan when a brief summary of the terms and conditions is shown on their mobile phones earlier in the transaction process. In Paraguay, consumers are offered a final option to accept or reject terms before concluding a digital transaction contract.

The Minefield of Mindless Marketing

Fintech loans are often promoted through push marketing and unsolicited offers directly on the consumers' phones that encourage impulse borrowing tempted by the fact that the money is readily available. Other unscrupulous tactics lure them to take out the maximum loan possible. The ads may also be deliberately misleading in terms of emphasising benefits, hiding risks, unrealistic offers with hidden conditions, etc. The loans are mostly unnecessary, unsuitable and unaffordable and leave the borrowers struggling to repay the same.

The remote nature of the digital channels coupled with the rapid speed of transactions render the consumers all the more vulnerable.

In addition to this, innovative technologies and delivery/interface channels are also creating unique risks for consumers as the focus is more on convenience and ease of access rather than protecting the consumers. The focus has to shift to designing suitable products and services, disseminating complete information, counselling consumers and providing adequate grievance redressal infrastructure.

Corrective Strategies

The RBI report calls for several actions to be taken to ensure consumer protection and fair treatment. It especially recommends eliminating regulatory arbitrage by recognising all products involving credit risk as lending products. For instance, the Buy Now Pay Later (BNPL) providers do not treat this offering as a loan, thus bypassing the necessary checks of KYC procedures, checking with the credit bureau and reporting to the bureau.

Moreover, the app-based lenders seem to be riding on the regulatory gaps as they are not directly covered by any supervisory authority. In fact, even the lenders/investors are at risk as they are not covered by any rights or protection mechanisms either. This is why the report has called for the creation of a Self-Regulatory Organisation (SRO) to frame standards and govern activities. It also recommends creating the Digital Trust of India Agency (DIGITA), to set up the minimum technical standards and verify compliance.

A report by the German Development Institute recommends the following measures for financial regulators:

- Fostering the integrity of digital markets - Establish specific licenses and regulations for all digital financial service providers and introduce obligatory reporting requirements to supervisory bodies and national systems for sharing credit information.
- Preventing exploitative financialisaton - Require digital lenders to present the costs and risks of their loan products in a manner comprehensible to consumers with little financial literacy and extend consumer protection policies to digital financial services.
- Establishing regulatory sandboxes - Launch regulatory sandboxes to test legislation in a closed setting and to learn about risks without hindering innovation.

Conclusion

Irrespective of whether the lending is taking place online or offline, fair treatment at the pre-contractual, contractual and post-contractual stages remains crucial in the interests of the consumers. The emerging lending platforms cannot be left unregulated anymore. The government needs to strike a balance between leveraging the potential of digital lending for inclusive finance and mitigating the associated risks.

Dr. Alka Mukne
Ph.D. (Tech.)
Board Member-PSAIIF

Self-Regulation is the Name of the Game for Fintechs

"Digital finance is an open prey for cybersecurity and privacy risks. Fintechs cannot afford to compromise on their cybersecurity anymore. In fact, they should stay ahead of the curve by adopting proactive measures to protect both the consumers' money and trust. This will translate into a robust competitive advantage as well."

– Dr. Alka Mukne

Digital finance services are open to attacks.
Fintechs are obligated to protect consumer data, money and trust

THE REACH AND breadth of digital financial services is expanding by the day. As per the latest World Retail Banking Report, 57% consumers prefer online banking to traditional branch banking while 55% prefer using mobile banking apps.

Personal and financial information is zipping across digital channels all the time. To add to this, disruptive technologies are constantly introducing new layers to digital finance even as we get used to the latest developments.

This heightens the inherent vulnerability to cybercrimes which can take varied forms like viruses, phishing, spoofing, hacking, mobile malware, distributed denial of service (DDoS), social engineering attacks, ransomware attacks, cyber espionage and other techniques. Then there is credit card fraud, duplicating SIM cards, data leakage at PoS terminals and more. Money laundering is also becoming more and more common.

The growing range of payment methods like e-wallets, payment apps and QR codes is further accelerating the number of threats. It was reported in the Parliament that over 2.9 lakh digital banking-related cyber security incidents were reported in 2020.

'The Role Of Consumer Organisations To Support Consumers Of Financial Services In Low And Middle Income Countries' – a report by Consumers International and CGAP released in March 2021 includes a Consumer Survey on Data Privacy Attitudes in India. The case study on CUTS International is as follows:

Challenge

- In 2018, the Government of India formed an expert committee to develop the draft Personal Data Protection Bill.
- The consumer advocacy organisation, Consumer Unity and Trust Society (CUTS International) noted that more women, young people, and rural people are using digital technologies.
- There is limited protection for consumer data and also limited understanding of the perceptions, awareness/capacity and expectations of consumers with regard to data privacy.

Approach

- CUTS conducted a data privacy survey of 2,400 consumers in Uttar Pradesh, Punjab, Assam, West Bengal, Andhra Pradesh and Maharashtra. It revealed that consumers are generally uncomfortable sharing their private data.
- Consumers are least comfortable sharing financial details, browsing and communication history and location data, but they generally will share this private data with the service providers.
- Consumers expect that there is a purpose limitation on the use of their data.

Results

- The survey findings were shared with the Government of India, and CUTS provided inputs on both the Draft Personal Data Protection bills of 2018 and 2019.
- Various media agencies reported on the survey findings to highlight how data privacy affects consumers of all socio-economic backgrounds.
- Given that the survey revealed consumer capacity constraints, CUTS also conducted workshops for consumers regarding how to better use data protection tools.

These hackers use the stolen financial data to siphon off millions of dollars or simply sell the banking credentials to the highest bidders. The ongoing pandemic has furtherworsened the cybersecurity situation.

The growing digital footprint on the one hand and expanding technology on the other is exposing new cybersecurity gaps for malicious individuals to exploit. Cybercriminals are also coming up with new and improved methods of attacking and breaching the systems. A 2020 report by Cybersecurity Ventures estimates that the intensity of cyberattacks has risen sharply from one every 40 seconds in 2016 to one every 11 seconds in 2021. According to another IBM research report, financial service providers have been most targeted by criminals for the last three consecutive years.

Indeed, cybersecurity and privacy are becoming major concerns for the consumers in the digital finance era. According to a 2020 study published by KPMG, 87% consumers consider data privacy a basic human right with 68% not trusting companies to ethically sell their personal data.

Data breaches not only put the personal information and identity of consumers at risk, but also reveal their payment and financial data which can lead to loss of money. In addition to the loss of privacy and financial harm, the risks also undermine public confidence in the digital finance ecosystem itself.

Costs of Failure

Digital finance cybercrimes not only affect the customers, but fell a huge blow to the fintechs which find themselves floundering in their attempts to recover the data. They often have to spend huge sums of money to recover the compromised data or information. And the loss of reputation can have a colossal impact as well.

The 2019 Accenture report on the cost of cybercrime stated that the average cost of cybercrime per company in financial services was a whopping $18.5 million, much higher than any other vertical.

Investing in Safety

Digital finance is marked by inadequate safety regulations, standards and practices. Review of the national cybersecurity strategy has been pending for almost a decade now. The data protection bill is also yet to see the light of day. Consumers too appear to be lax in in protecting their online financial information and activities by themselves. Against this kind of a backdrop, the onus is on the digital banks, financial institutions and other fintech companies to proactively protect their platforms against intrusions by criminals so as to ensure consumer privacy and safety.

While a multi-pronged approach is essential for digital finance providers to become the first line of defence against the potential security breaches, the prime focus has to obviously be on strengthening their digital services to ensure that sensitive data of the consumers is safe and secure. Self-regulation involves using the latest techniques and approaches, like:

Data encryption: Encryption is all about encoding data into a code that requires special keys (based on complex encryption algorithms) to decipher it into a readable format. Databases, file systems and other locations of critical consumer data should always be encrypted. Data encryption should take place at source (before transfer) with access and decryption available to authenticated receivers only. Bank details and other such sensitive private information should always be masked at display to avoid potential leakages.

Tokenization: This technology provides digital payment security by encrypting user data with randomly generated symbols, called tokens. The merchant servers store the tokens and not the actual card numbers or other payment details, thus minimising the risk of data breach. Unique databases (token vaults) are used to decrypt the information back into a readable format. What's more, the token vaults can also be encrypted for further security. It is used by top payment solution providers like Apple and Google in their NFC-enabled mobile wallets.

Access Management: Only authorised people should be permitted to access the relevant data with role-based data segregation to maintain data integrity and confidentiality as well as overpowering the element of insider threat. The level of access to the network will be clearly defined for administrators, managers, IT specialists and online support staff based on their job description and responsibilities.

Secure Sockets Layer: Getting an SSL certificate from an SSL certificate issuer or certificate authority is a must for digital financial transactions as the Secure Sockets Layer icon guarantees a secure connection and encryption of data to the users.

Authentication technology – It is advisable to institute mechanisms like short log-in sessions, OTP system, mandatory password change, adaptive authentication, etc. to ensure that the users are properly verified and suspicious activity gets weeded out.

Security testing: Testing the digital finance software for code loopholes or architectural bugs along with scalability, performance and penetration testing help establish trust in the fintech companies as they expose potential vulnerabilities, threats, attack modes and other weaknesses. These can be plugged and the defences strengthened before they explode in front of the consumers.

Even the government has been toying with developing a testing and certification ecosystem with registered firms and individuals carrying out security testing and audits.

Fraud prevention tools: Anti-fraud tools are available which gather information about the transactions and verify it against embedded methods to identify any indications of possible fraudulent attacks. When a fraud is detected, the transaction is stopped immediately and logged in a report. Next-generation technologies are on the anvil that can recognise and eliminate the actions used in exploits.

Educating consumers: Fintechs should explain their security protocols to the consumers while also teaching them appropriate privacy and security steps to stay safe while banking online.

Redressal mechanisms: Consumers find themselves having no proper recourse when they suffer fraud or other issues. The fintechs should establish a fair, accessible and expeditious dispute resolution and grievance redressal mechanism to protect the rights of the consumers.

A Deloitte analysis of consumer privacy protections in digital finance suggests measures like:

- Considering how consumer privacy concerns may evolve as digital banking and payments evolve.
- Increasing transparency surrounding the collection and use of consumer data to build trust with customers.
- Implementing measures to ensure the safety and security of how personal data is handled and by whom.
- Exploring new technologies or methods for data collection that could better shield consumers from exploitative practices.
- Appointing chief privacy officers and empowering them with the ability to create new, more stringent privacy practices.

Conclusion

Fintechs should understand the impact of cybersecurity threats and develop a mindset of ensuring utmost safety and security to the consumers. They need to prioritise cyber risk management by investing in cyber risk prevention frameworks. They should move towards integrated security where all components work and communicate together.

"There's a need to expand the reach of digital finance and its various components to ensure that the objectives of inclusivity are fulfilled"

*– states **Reeti Mahobe,** Junior Associate, Project Analysis and Documentation Division (PADD), QCI*

WIDENING THE SCOPE OF DIGITAL FINANCE: TOWARDS GREATER INCLUSIVITY

AS THE WORLD embarked into a new decade of the 21st century, it threw open a plethora of opportunities in the emerging technologies, particularly in the realm of digitization. Digital technologies have already touched almost every facet of our lives and the footprint is increasing at a very fast pace.

One of the areas that has witnessed a huge transformation is the field of finance and the introduction of technology in this sector has given rise to the concept of digital finance. The internet users in India have crossed over 622 million[1] (2020) and the number is expected to increase further by 45% in the next five years. A simultaneous jump in the use of smartphones and affordable data plans have added to the growth of digital finance usage. Moreover, the pandemic induced restrictions in mobility and steps such as demonetization had emerged as blessings in disguise for the internet economy. The BRICS Digital Financial Inclusion Report, 2021[2] states that the various modes of digital payments rose by leaps and bounds with the JAM trinity, i.e. Jan Dhan Yojana, Aadhar enabled payment services (AePS) and Mudra Yojana coupled with tremendous uptake of UPI enabled payments, AePS, mobile wallets and emergence of several e-commerce app based platforms.

However, there's a dire need to closely analyse the current scenario in terms of understanding the concerns of accessibility to digital modes among certain sections of society and remote areas, risks of frauds, digital finance literacy and resolution mechanisms in place.

Fintech and digitization are fast emerging as the catalyst in plugging the gaps towards the larger goal of achieving universal financial inclusion. This necessitates that underserved areas are identified and adequate efforts are undertaken for bringing them under the ambit of digital finance.

There is a lot that is already happening in this space. The financial inclusion activities undertaken within key government programs such as Banking Correspondent (BC) model and Bank Sakhi/Bank Mitra model[3] integrated with National Rural Livelihood Missionhas enabled door-step banking services through digital modes, specifically benefitting women in the rural areas.

Internet Saathi[4] program launched in 2015 by Tata Trusts and Google aimed at expanding digital awareness among the women as a digital literacy campaign. The community led programmes can provide a fillip to the digital finance literacy, specifically on the risks involved such as password or pin protection, spam calls, redressal mechanisms along with basics of its usage.

E-Shakti project[5] by NABARD for women's self-help groups is acase study in this regard which covered aspects such as introduction of e-book keeping services, automated grading of SHGs and other financial services. A study conducted in Kottayam district[6] also revealed that digital innovations allowed people to manage their finances in a sustainable way. One of the illustrations of how digital finance can shape up is the tribal panchayat of Edamalakkudy[7] in Kerala which has achieved 100 percent digital financial literacy with the setting up of micro-ATMs, banking correspondents, counsellors for imparting financial literacy, Aadhaar seeding and GSM connectivity in deep forest areas. There are schemes such as PM Van Dhan Yojana that aims to facilitate forest-based livelihoods through market led interventions wherein digital finance can support in meeting the mission and vision further.

Further, Direct Benefits Transfer has been undertaken proactively under several government schemes which showcase the growing significance of digital finance and its potential to provide seamless services. This includes transfer of payments under PM Svanidhi Scheme, a scheme designed for supporting the street vendors in their livelihoods. On the same note, Open Network for Digital Commerce (ONDC) project provides the one stop digital window for the e-commerce platforms highlighting the relevance of digital payments and finance. QCI is playing a key role in the implementation of PM Svanidhi and ONDC.

What we need is an analysis of the connectivity in remote areas such as hill or forest based villages and hamlets. Usually, the weekly 'haat' bazaars are the places that have internet connectivity and this can be leveraged for taking the penetration of digital finance forward in the far- flung areas.

Thus, there's a need to expand the reach of digital finance and its various components to ensure that the objectives of inclusivity are fulfilled. Moving further, the campaign to make people aware of the threats and risks involved, means to avoid the same and redressal mechanism should be part of any digital financial literacy program. This will provide higher accessibility for people from different sections of the society to gain the benefits of digital finance.

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2 https://www.rbi.org.in/Scripts/OccasionalPublications.aspx?head=BRICS%20Digital%20Financial%20Inclusion%20Report

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4 https://www.tatatrusts.org/our-work/digital-transformation/digital-literacy/internet-saathi

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6 https://www.researchgate.net/publication/341446530_Digital_Financial_Inclusion_A_Catalyst_for_Socio-Economic_Transformation_of_Scheduled_Castes_and_Scheduled_Tribes_in_Kerala

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ALLAYING TECHNOLOGICAL CHALLENGES IN DIGITAL FINANCE

Fintechs have their roots in technology and rely on technical interfaces for everything from interacting with consumers to delivering their services. The tech itself throws up its own challenges which need to be mitigated in order for fintech to truly benefit consumers.

DIGITAL FINANCE HAS made significant strides in the Indian subcontinent. The rapid emergence of various technological innovations supported by our robust and world-class tech ecosystem is fuelling unprecedented growth of fintech platforms in the country. Millions of consumers are actually getting access to financial services for the very first time when previously they had little to no access to a bank account.

The benefits are humungous, but the risks to consumers are lurking behind the scenes. Here it is not just about the hidden costs, confusing terms and conditions, exploitative and predatory practices, frauds and security issues alone. Technical issues also seep into the mix, thus besmirching the consumer experience. At times, the inconvenience and fears can even make users swear off digital finance channels completely and go back to the traditional banking routes.

Technical Realities of Digital Finance That Make Consumers Vulnerable

Network/Service Errors – Disruptions in service are part and parcel of using the internet. The problems can range from weak connectivity at the user's end to large-scale server downtimes. Mobile networks still remain unreliable across telecom providers. System instability of the bank servers can be accidental or even intentional at times. Either way, it impacts the user's ability to access his/her accounts. There is a possibility of loss of data, including payment instructions, due to dropped messages. Real-time confirmations for completed transactions also often get delayed due to network malfunctions.

You may find yourself stuck when making a payment or conducting other transactions, leading to fears about both the personal data and funds are exposed to risks. An incomplete transaction that is interrupted due to poor service gives rise to a niggling concern about whether the money has actually been credited to the recipient's account or not. The user does not know whether it will be available later or has become lost forever. What if the funds are in a 'limbo' somewhere and inaccessible to both the sender and the recipient?

At times, users get a failed transaction message and send the funds again, only to find that the transfer has happened twice. Now they not only have to depend on the receiver's whim to return the money or not, but also foot double transaction charges to boot.

Consumers have to be assured that they may be unable to transact or access their account for some time, but the technical disruptions do not affect their funds which will remain safe in their digital accounts. Moreover, the fintech entities should make it a point to communicate planned system downtimes (like scheduled maintenance) through varied channels so that customers know when to expect service interruptions. They should also be required to address technology and systems-related risks in an appropriate manner.

Complex user interface – The websites, apps and other platforms of digital finance are often quite complicated. There are scores of menu options which can be quite confusing, especially for first-time users of digital finance. They not only find themselves struggling with the intricate interface and multi-step processes, but many of them use basic feature smartphones that have limited interface options. Navigating through the multiple steps can prove to be challenging even for tech-savvy folks who are using the latest handsets!

There is a lurking fear that even a minor process mistake or keystroke error can result in the money being sent to the wrong person or cause other financial losses. And being slow while taking the time to check every step and detail can lead to a 'time out' of the time-bound transactions, requiring the user to start all over again!

The lack of knowledge and confidence is further aggravated by language limitations at times, becoming a significant barrier to the uptake and use of digital finance practices.

Scared of 'messing up the buttons' or not understanding the instructions, the non-tech savvy, elderly and illiterate consumers often seek help from others to conduct the digital transactions. But sharing the account information, password, PIN, etc. can open up a bevy of other risks again.

Digital finance largely or exclusively relies on digital technology

Then again, the mobile format with small font sizes can impede readability of the important terms and other details. “When you translate summarised disclosure statements and key facts to a small screen, it becomes even harder to ensure that the consumer is receiving the information they need to understand risks and choose an appropriate product,” observed Jennifer Chien, Senior Financial Sector Specialist at the World Bank Group.

Fintechs should be mandated to make their digital interface simple to understand and use - intuitive menus that are easy to navigate are considered user-friendly for everyone.

Conclusion

Digital finance is here to stay. However, the providers have to shape up their game to be able to inspire trust in the consumers and ensure that they and their money is safe at all times!

Where can consumers have their say about policies and legislation, about their needs and requirements, about products and services, about genuine and fraud companies? We provide you the platform to share with our readers your experiences.
Write to us: bejonmisra@consumerconexion.org

Do Digital Finance Right By Consumers

Finance is the lifeblood of an economy and technology has emerged as the best carrier of this vital force. While digital finance solutions are empowering, they need to figure prominently on the regulatory radar to ensure fairness and security for the consumers!

THE GROWTH IN digital finance is allowing us to send and receive money, pay bills, buy goods and services, open bank accounts, apply for personal loans, purchase insurance and trade in the stock market without even stepping out of the house, let alone going to a bank. The smartphone has turned into a wallet, a cheque book and even a bank in itself. Our digital financial footprint is growing beyond bounds. The only thing we need is appropriate regulation and supervision to ensure that whatever we are doing is safe and secure for everyone concerned. Why does the government have such a light-touch approach towards the regulation of digital financial services?

– Archana Swamy, Hyderabad

Finance has undergone a profound transformation. Digital technologies have reshaped payments, lending, insurance and wealth management. We have UPI, we have RuPay, we have BHIM and Bharat Pe; there are Payment banks and so much more. This new financial ecosystem is defined by technology providers and other new entrants offering financial services. But we still have to stay on our toes to watch out for the ubiquitous online risks that extend to the digital finance space. I am worried about hackers and other cyber criminals accessing my data. What if my money falls into the wrong hands and I lose it forever? An enabling regulatory framework with appropriate checks and balances is crucial for us to be able to rest easy and repose all our trust in the digital tools.

– Kartik Raina, Mumbai

India is shining! I can pay a roadside vegetable vendor through UPI. Almost every kirana store has a board showing the QR code for making a digital payment. But we cannot ignore the fact that outages, frauds and data breaches have spiked in the burgeoning payments ecosystem. These are challenges that need to be addressed by policymakers and regulators so as to guarantee a well-functioning credit market and a secure financial system.

– Pranav Bhadruka, Jodhpur

Fintech is connecting people in the remotest of villages who are now able to do things like transferring money to a friend or relative in another distant village or town with ease. Earlier this would have required them to go to the nearest town, deposit cash in the bank and pay hefty transfer fees. The transfer time of a few days or weeks is reduced to a few minutes now. Mobile banking is giving access to financial services to those that had none before. But when I myself am not sure whether my digital transaction is safe, who and what will protect the rural, illiterate and unaware consumer? I am particularly wary of a HDFC-like episode where the service outages went on for two whole years. Why was the RBI so late in stepping in and stopping the bank from releasing new digital products? I implore that the dynamic mobile banking channels should aid us and not make a fool of us!

– Geetanjali Das, Poovar

What I miss the most in the ease of digital finance, is the personal touch. I am interacting with the financial provider largely or exclusively via digital and remote means. The in-person banking relationship with the real bank staff is better as they can help me find the right solutions for my overall banking needs. It often becomes difficult to navigate some of the challenging banking scenarios online and the involvement of bankers is essential for making the going easier.

– Karen Bhatia, Srinagar

Update on the January edition on Diagnostic Devices – Pressing Need for Regulation

Regulation of Diagnostic Centres in Delhi:

Government Replies to the High Court

IN RESPONSE TO a PIL alleging that unauthorised laboratories and diagnostic centres were being managed by unqualified technicians, the Delhi High Court had directed the city government to apprise it on how pathological laboratories in the city are being regulated and asked if any action has been taken against those running in violation of the laid down framework.

Following this diktat, the Delhi government filed an affidavit which stated that it is regulating pathological laboratories in the city and an online public grievance monitoring system has also been set up for filing complaints. It further said that while there was 'no specific complaint alleging violations' as per the Delhi Medical Council, action was taken by the council on its own or on the basis of information received by it with respect to irregularities by some path labs. The affidavit disclosed five instances when action - including suspension from the state medical register - was taken against negligence, professional misconduct and association with unqualified medical practitioners.

It further clarified that all path labs are being governed as per public notices issued in accordance with the Clinical Establishment Rules, 2018. Under the present framework, all path labs are classified into basic composite, medium and advanced categories and all medical reports have to be signed by a registered medicalpractitioner having post-graduate education. The government counsel also stated that the Delhi Health Bill is under 'active consideration'.

It should be noted that there has been no significant announcement in the Union Budget 2022-23 related to the diagnostics sector!

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YOUR OPINION MATTERS

letters to the editor

We are truly humbled by the praise and acknowledgment that is flowing in from varied sources. Please feel free to send in your comments, views or feedback on The Aware Consumer magazine at bejonmisra@theawareconsumer.in – we will publish your opinions and implement your feedback while ensuring that your voice is heard on the right platforms.

(January issue: Diagnostic Devices – Pressing Need for Regulation)

Quality of diagnostics and its price have a direct impact on the healthcare outcome, but it was ignored or less understood by the healthcare policy makers. Recently this area has attracted the attention of health care authorities and the consumers in terms of its need, quality, standards, cost and regulations. This issue of the magazine covers most of the issues very nicely, which will help the consumers better understanding about the role of diagnostics in improving therapeutic outcome. Hope the forthcoming issues of this publication will cover different components of the healthcare system for improving access to affordable healthcare.

– Dr. Subhash C Mandal, Kolkata • subhash.mandaldr@gmail.com

Diagnostics is such a uniquely placed sector which has remained fundamentally distinct in terms of division between customer and consumer. And as such an extra degree of care and vigil becomes inevitable. Aspects like quality, transparency, efficacy of the range of products and services cannot be overrated, notwithstanding the category - be it a drug, vaccine, or device and the surrounding regulatory mechanism.

Together with better access to affordable technology, and an interest in healthy living, consumer healthcare is set to become a growth industry. Though technology is disrupting the ecosystem and undoubtedly COVID-19 is a watershed moment for digital healthcare, yet there is ample head room for a larger participative role for all those genuinely contributing to the consumer activism in this space. Arguably they present an ideal conduit on significant issues between the communities active in the value chain i.e. manufacturer-customer-consumer in ensuring fairness, parity and level playing field to a large extent. The transition from sellers' market to buyers' market has begun long back in any case.

The ***"Aware Consumer"*** as a publication has been a force to reckon with as a recognition to its stellar contribution by bringing out updates and opinions in a meaningful fashion. Wishing Godspeed for its continued value-added service to a segment which deserves the highest attention. A heathy India is a mighty India!

– Sabyasachee Dash, Mumbai, Columnist & Policy Observer
• Sabyasachee.dash@gmail.com

After going through this issue on Diagnostic Devices, I would like to mention that there are many good doctors following ethical practices and doing exceptional work. The scale of patients they see every day gives them rich experience about the causes of various ailments and what tests are required to detect different diseases. They give honest replies to their patients but get mired with people who come to them armed with half-truths, misguided advices and other inferences from Google. Such people argue with doctors about why they are giving/not giving medicines, prescribing/not prescribing tests and everything else.

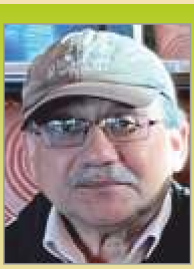
On the other hand, there are many more medical professionals who are hand in glove with the pharma companies and laboratories. Lured by lucrative kickbacks and other backdoor facilities, such doctors do not hesitate to ask for CT scans, MRIs and other tests while knowing very well that they are not needed at all. Most of them are getting as much as 30% kickback from the labs just for writing the tests. The patients are taken for a ride and have to spend unnecessarily on such tests.

Alas, ethical practices are surpassed by the desire to make as much money as possible. The pharma and diagnostic industry is dictating the terms. Even though the Modi government is trying to streamline the issues, it will still take a very long time.

I would like to suggest that the industry should institute a rating system wherein specialised agencies analyse the medical/diagnostic facilities and assign star ratings based on the cleanliness, hygiene, pricing, recovery rate, discharge schedule and so on.

Coming to the magazine, I feel it is a good attempt and provides a lot of information to the readers. However, it only touches on the topics without giving us the core depth with concrete proofs and reviews.

– Bankim Bajaria, Vadodara
• bankimbajaria@yahoo.co.in



'The Aware Consumer has been covering interesting topics of consumer education and quality awareness. I recently read "Diagnostic Devices" issue (Jan 2022) which had a wide coverage and write-ups relating to the industry's development, assessment, regulation and testing accessibility/pricing.

I found "Cybersecurity Vulnerabilities" an interesting writeup in today's world of rapid digitisation in the healthcare industry. Securing 'data privacy' of patient data, personal information, medical history and financial information is gaining utmost importance.

Future use of Block Chain technology will assist in protecting privacy and giving patients control of their data. This technology was developed specifically for Bitcoin to trade digital currency, but now expansion of Block Chain will allow digital information to be securely recorded and distributed in the ledgers which cannot be edited, altered, deleted or destroyed. This upcoming implementation is expected to transform the digital vulnerabilities.

– Sandeep Parekh, New Jersey • sandeep.parekhus@gmail.com

WATCH OUT! for the next issue in April 2022 dedicated to Traditional Healing Practices.

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