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## Fintech needs QR: ‘Quick Resource’

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*Every industry has always relied heavily on technology. Everyone can now transact from any location. Almost everybody nowadays uses or is aware of financial technology. Those operations are now at their fingertips, thanks to new-age innovation. The system's robustness has increased efficiency and duty cycle compared to the traditional mechanism. From Pandora's Box, QR codes and UPI have emerged as an innovative financial revolution and have proven to be cutting-edge technology. Not only that, but transaction procedure has ramped up further to clock in all records as blockchain technology has significantly entered this financial system. The rise of technology, particularly in the financial sector, has refined sophisticated operations. Transactions became more convenient and methodical, but such significant progress necessitates extensive legalization, and scrutiny is necessary to use these cutting-edge technologies and stimulate economic growth. As a result, the article delves deeply into the onset of fintech and the vital safeguards needed. In the coming years, fintech will continue to transform our society. So, let's get acquainted with this problematic category of financial innovations.*

**Keywords:** *fintech, blockchain, banking law, UPI, QR codes.*

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### INTRODUCTION

In the 21st century, we use mobile wallets, payment apps, investment platforms, Artificial Intelligence, cryptocurrency, and other financial technology services that supplement traditional banking services. The deadly Coronavirus infection outbreak emerged

as a fearsome challenge for businesses and governments nationally and internationally. Fintech firms, notably new-age digital financing platforms, were being hit hard by the heat of the paradigm shift. In reality, financial technology is all around us. When we buy something, many of us prefer to use fintech rather than cash. People use it to conduct various financial transactions as it is far more convenient than before.

## WHAT IS FINTECH

FinTech comprises two words: "Fin" and "Tech," which means Financial Technology. Financial technology is a new technological trend in traditional financial services. FinTech uses innovative technology that provides various software for financial products and services. In general, "fintech" refers to any advancement in how people conduct business, from the invention of digital money to accounting. However, financial technology has grown explosively since the Internet and smartphone revolutions. Fintech, which referred to the application of computer technology to banks or trading firms, now refers to a wide range of technological interventions in customer and commercial business. As per the report, more than \$20 billion is engaged in the Indian fintech industry, which could probably surpass \$150 billion by 2025. Over 2000 fintech companies are in operation, with 77 percent of them having emerged in the last five years. This massive bombardment of newly founded companies will continue and potentially increase.<sup>1</sup>

## TYPES OF FINTECH

**Payment Banking:** Many do not have a bank account or access to a mobile money provider. High fees are charged by banks, making it impossible for an ordinary person to use their services. Fintech firms provide a viable choice for individuals by making financial products more cost-effective and accessible. Fintech banks are transforming banking as we know it, from mobile banks to online digital banks. But Payment Banks are subject to a few restrictions. Payment banks are not permitted to make loans, provide credit products, or issue credit cards.

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<sup>1</sup> 'Union Budget 2022-23: What Are Special Provisions for Fintech Companies' (*Buddy Loan*)  
<<https://www.buddyloan.com/blog/union-budget-2022-23-what-are-special-provisions-for-fintech-companies/>> accessed 24 July 2022

**Payment Gateway:** These online payment gateways have reformed the payment system, making it simple and easily accessible. Payment gateways' achievement is that they enable people to send money without involving the bank. Payment gateways have given substantial benefits and savings to consumers by erasing complicated and expensive bank fees.

**P2P:** P2P (Peer to Peer lending) platforms function similarly to a consumer market. It brings two entities together. The first entity is someone who wants to lend money and earn interest, and the second entity is someone who wants to borrow money. There is no bank in the middle. This transaction is only made possible by technology. As a result, interest rates are generally higher than the rates offered by the bank.

**Insurance:** Companies in this category typically work with traditional insurers to automate insurance procedures and expand coverage. Fintech companies can innovate in different areas of insurance.<sup>2</sup> The elimination of time-consuming and inefficient processes is critical to insurance innovation. Anyone can now buy car insurance in a matter of hours, thanks to fintech-provided insurance.

**UPI and QR:** UPI is an abbreviation for Unified Payments Interface, and NPCI is in charge of this platform. UPI enables a mobile payment system that is real-time and instant. QR code payment is a contactless payment method in which a payment is by scanning a QR code from a mobile app.

**Blockchain<sup>3</sup>:** The term "blockchain" refers to a "chain of blocks." The blocks contain time-stamped digital records of transactions or data exchanges that occur on the computer-distributed network. Every block contains its hash, the previous block's hash, and data that connects the blockchain. Because blockchain provides numerous benefits such as transparency and security, it is an excellent technology for the payments and finance industries.

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<sup>2</sup> Astrid Eira, 'What is Fintech? Examples of types, Products & Regulation' (*Finance Online*)

<<https://financesonline.com/what-is-fintech/>> accessed 24 July 2022

<sup>3</sup> Akash Takyar, 'Blockchain in Payments-Transforming the Payments Industry' (*Leeway Hertz*)

<<https://www.leewayhertz.com/blockchain-in-payments/>> accessed 23 July 2022

## REGULATORY

**Reserve Bank of India (RBI)**<sup>4</sup>: FinTech is regulated directly by the Reserve Bank,<sup>5</sup> which grants them NBFC licenses (such as NBFC-P2P), or indirectly by regulating the banks and NBFCs associated with them.

**National Payments Corporation of India (NPCI)**: The National Payments Corporation of India (NPCI) is a quasi-regulatory organization that governs the operation of retail payment and settlement systems in India. The National Payments Corporation of India (NPCI) issues guidelines to keep a check on India's UPI payment system.

**UIDAI**: It is a legal entity; it is responsible for supervising the Aadhaar program. As we all know, the Aadhaar program is one of the identity projects. Whenever someone interacts with Fintech, he or she must verify his/her identity at some point. The Aadhaar program arises here. That is how UIDAI becomes a relevant regulator in this case.

## LAWS

Every technology, no matter how sophisticated, has advantages and disadvantages. Because a fintech firm primarily provides digital solutions, it is vulnerable to bugs. The regulator seeks to prevent these firms from engaging in illegal operations by supervising the functional aspects. The RBI, IRDAI, SEBI, the Ministry of Corporate Affairs, and the Ministry of Electronics and Informatics regulate Fintech.<sup>6</sup> The Reserve Bank of India, on the other hand, monitors fintech firms that deal with P2P lending, account aggregation, payments, and crypto-currencies.

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<sup>4</sup> Rohit Pradhan, 'Explained: [Fintech Laws] in India' (*The Fintech Lawyer*, 30 October 2021) <<https://thefintechlawyer.com/explained-fintech-laws-in-india/>> accessed 22 July 2022

<sup>5</sup> 'Fintech: The Force Of Creative Disruption' (*Reserve Bank of India*, 11 November 2020) <[https://www.rbi.org.in/Scripts/BS\\_ViewBulletin.aspx?Id=19899](https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=19899)> accessed 24 July 2022

<sup>6</sup> Pankaj Tyagi, 'Fintech Laws in India: Everything you need to know' (*Corpbiz*, 18 Jun 2021) <<https://corpbiz.io/learning/fintech-laws-in-india/>> accessed 24 July 2022

## FINTECH REGULATION

**NBFC Regulation**<sup>7</sup>: The Reserve Bank of India Act<sup>8</sup>, governs NBFC licensing and service in India. The RBI has created specific criteria for determining whether an organization can be a licensed financial services company. The majority of digital lenders in India are NBFC-licensed.

**Payment and Settlement Systems Act, 2007**: The PSS Act<sup>9</sup> prohibits the commencement of a "payment system" without prior approval from the RBI. A "payment system," according to the PSS Act, is "a system that allows payment between a person who pays and a recipient, which includes clearing, payment, or settlement but does not include a stock exchange." Credit card operating systems, debit card operations, Smart card operations, money transfer operations, PPIs, and other payment schemes are examples of payment schemes.

**Money Laundering Regulations**: The Prevention of Money Laundering Act, 2002,<sup>10</sup> also known as the PMLA, is an Act of the Indian Parliament enacted to prevent money laundering and to provide for the confiscation of property obtained through money laundering.

**Data Privacy and Protection**: The Information Technology Act, 2000 <sup>11</sup>("IT Act") and rules under the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 <sup>12</sup>("SPDI Rules") are the relevant laws in India governing data protection and the principle of privacy in general.

## ADVANTAGES

The financial sector can generate enormous amounts of money using cutting-edge technologies on the market. Aside from transforming and improving existing financial systems

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<sup>7</sup> Anupam Prasad, 'Fintech Laws and Regulations in India' (*Lawyered*, 14 April 2020) <<https://www.lawyered.in/legal-disrupt/articles/fintech-in-india-and-its-applicable-laws/>> accessed 24 July 2022

<sup>8</sup> Reserve Bank of India Act 1934

<sup>9</sup> Payment and Settlement Systems Act 2007

<sup>10</sup> Prevention of Money Laundering Act 2002

<sup>11</sup> Information Technology Act 2000

<sup>12</sup> Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules 2011

(banking systems, trading, and sales transactions), fintech introduces new ways to participate in the economy. Because of the system's complexity, tracking these operations becomes extremely difficult for humans. With Artificial Intelligence (AI) assistance, the ability to detect questionable behaviours is much easier.

## **DISADVANTAGES**

It is as simple as using their smartphones, but the reality is that this condition excludes a large portion of the population that does not have access to the Internet and, as a result, faces difficulties even with the existence of Fintech companies. The regulations governing fintech are not flawless, and there is a possibility that some of these may probably be fraud in the absence of laws.

## **DEEP DIVE**

Technology is the future, and its survival is the basis for future innovation. The creation of a new device, software, app, or technology will only survive for a few years if it keeps getting evolved. Numerous examples exist in the financial world of new ideas that were assumed irreplaceable but are now no more addressed. Nobody imagined that the ATM transaction process could get replaced when first introduced, but today, almost no one withdraws cash from an ATM; instead, transactions are online. Because of Jio, everyone can now connect to the internet. Because of the such internet accessibility, consumers can access service providers operating through an online portal. In such a cutthroat competition, everyone is just looking for an opportunity to strangle out the other. As a result, it is critical to be steadfast in providing service and on-demand to customers. And the pandemic has inflated demand even more than expected, resulting in a storm surge of these fintech companies sprouting up out of nowhere.

In 2021, digital payments had the highest number of users in Asia's FinTech sector.<sup>13</sup> 2.38 billion people used digital payments in that year, accounting for the highest transaction value

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<sup>13</sup> 'Number of users of Fintech in Asia from 2017 to 2026, by segment' (*Statista*, 21 March 2022)  
<<https://www.statista.com/forecasts/1236037/number-fintech-users-asia-by-segment>> accessed 22 July 2022

among FinTech in 2021. According to the Statista Digital Market Outlook, the number of users in Asia will reach around 3.3 billion by 2026. Other segments, such as alternative lending and personal finance, are expected to grow significantly by 2026. Despite the economic uncertainty caused by COVID-19,<sup>14</sup> the investment deals in the fintech industry made in India through Venture capital were approximately 518 in 2020. However, Angel investments in the country fell from 736 in 2019 to 620 deals in 2020. The revolution of online payment through account-to-account service made the transaction so simple and convenient. But UPI and QR Codes have destroyed the traditional banking payment setup. As of April 2022, the Unified Payment Interface (UPI) transactions in India were more than ₹9.8 trillion. Despite the slight increase from the previous month, the value of UPI transactions improved significantly since August 2018, when it was less than ₹550 billion.

UPI is a National Payments Corporation of India (NPCI)<sup>15</sup> product launched in 2016. It enables users of payment service providers such as PhonePe or GooglePay to connect with banks and transfer money by using NPCI as a switch. It is more user-friendly than older payment methods like IMPS. Cryptocurrency is now another highly sought-after universe, particularly among the younger generation. The fascination with cryptocurrency stems from the blockchain system, which allows it to provide absolute privacy and be free of all the limitations associated with fiat currency. According to a report by digital asset exchange Cross Tower and the US-India Strategic Partnership Forum, blockchain technology, and Web 3.0 innovations will increase the value of the digital asset economy from \$5 billion in 2021 to \$262 billion over 11 years, contributing \$1.1 trillion to India's GDP.<sup>16</sup>

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<sup>14</sup> 'Number of investments in Fintech in India from 2017 to 2020, by deal count' (*Statista*, 21 July 2022) <<https://www.statista.com/statistics/1247817/india-number-of-investments-into-fintech-by-deal-count/>> accessed 24 July 2022

<sup>15</sup> 'Value of Unified Payments Interface UPI transactions in India from August 2018 to April 2022' (*Statista*, 21 July 2022) <<https://www.statista.com/statistics/1225935/india-value-of-upi-transactions/>> accessed 24 July 2022

<sup>16</sup> 'The Rise of Blockchain in India and its Future' (*Analytics Insights*, 14 February 2022) <<https://www.analyticsinsight.net/the-rise-of-blockchain-in-india-and-its-future/>> accessed 24 July 2022

## WAY FORWARD

According to numerous reports, there will be a massive influx of Fintech startups using artificial intelligence and blockchain payment methods. But for speedy advancement and development, the government is ignoring the implementation of strict rules & regulations.

### *UPI and QR Code*

QR codes are now widely used for payment in stores; simply scanning the QR code allows you to transfer money directly from your account to the merchant. Fraudsters, on the other hand, use QR codes to transfer money from your account to theirs using any payment app, including Paytm, PhonePe, and others. UPI and QR code fraud are becoming increasingly common. Fraudsters use a remote screen mirroring tool to obtain the UPI details and PIN. As a result of the bug fix, some new methods of fraud emerge to defraud users and steal their hard-earned money. What matters now is the regulation of such fintech and monitoring of their operations. The ease with which it provides service is also the source of fraud in these fintech transactions. These scams are becoming more common, but a solution needs to be found to keep them in check.

### *Loan Fraud*

They gave credit online, without paperwork or pre-requisite verification, to bring the crowd to their platform. There have been numerous cases of customers getting duped by such fintech companies. One such example is the Dhani app,<sup>17</sup> which has defrauded many customers by granting loans in their names even though they didn't apply for loans. People discovered that their credit had declined without them taking out a loan, they found that their PAN card details were compromised, and fraudsters had used their card details to obtain a loan. Fraudsters took advantage of this loophole because there was no verification of the details before providing the loan. Dhani achieved success in a short period by amassing people's hard-earned money.

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<sup>17</sup> 'India bulls owned Dhani app loan fraud: All you need to know' (CNBC TV18, 16 February 2022) <<https://www.cnbctv18.com/business/indiabulls-owned-dhani-app-loan-fraud-all-you-need-to-know-12512082.htm>> accessed 24 July 2022



### *Data privacy leak*

Another major issue that has arisen over time is a private data leak from the fintech database. It's a serious problem that is getting worse with each passing year. The dark web is becoming increasingly popular as conduct for major illegal activities. The dark web is a section of the internet that would be inaccessible via traditional search engines like Google, Bing, Yahoo, and others. You have complete anonymity when using the dark web. It has a serious concern that needs utmost attention and regulation.

Several independent cybersecurity researchers had discovered that the personal data of over 10 Crore customers of fintech startup Mobikwik was available for sale on the Darkweb, in what has been called the Biggest Data Leak in Indian History. On January 20,<sup>18</sup> a hacker named Jordan Daven stole over 8 Terabytes (TB) of personal user information such as email addresses, phone numbers, names, addresses, passwords, GPS locations, and data related to users from the server, and posted it on Dark Web forums. Although the company denied the accusations, it is necessary to impose strict stipulations so that such privacy leaks don't happen again. The connection between the real and virtual worlds is becoming increasingly blurred, and online fraud is becoming more common. As we spend time online, fraudsters devise new strategies to defraud us of our hard-earned money.

### CONCLUSION

Financial technology, or fintech, has a broad definition and a long history. As a result, the term "fintech" has evolved alongside overall technological progress. With these advancements over the years and many more to come, it's high time to keep a close eye on payment methodologies and monitor the operations of these fintech companies, as well as implement a system that requires such companies to report to the authorities on the entity regularly. The data breach is a significant issue that has become increasingly serious and endangering the nation's privacy. Payment methods such as UPI and QR Codes require special attention as the

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<sup>18</sup> 'Data of 10 Crore Mobikwik users for sale on Dark Web' (*The Economic Times*, 30 March 2021) <<https://economictimes.indiatimes.com/tech/startups/mobikwik-data-breach-personal-data-of-over-10-crore-users-allegedly-available-on-sale/articleshow/81756544.cms>> accessed 24 July 2022

instances of fraud increase frequently. Most notably, the forthcoming artificial intelligence and blockchain technology are immensely complicated and worrisome, necessitating prompt action in this area. Ultimately, the headway of the financial sector and the number of new platforms is encouraging, but it would be even better if it comes with enhanced security and trust for both individuals and the country overall.