

# Fintech Lending: An Analysis of Supply Factors in Indian Context

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## ABSTRACT:

With a risen technological advancement, the lending sector has changed the way it serves borrowers. Fintech lenders are those who depend on this type of advancement and create a positive effect on the lending sector in India. The primary goal of this research paper is to comprehend the supply drivers of fintech lending in India. To fulfil this goal, researchers create a conceptual framework based on secondary sources of information. In conclusion, there are four drivers that make the supply line stable for the fintech lenders in India. The results of this study can be used to refine a case study approach for use in other studies.

**Keywords:** fintech lending, india, supply, digital india

## I. INTRODUCTION

The term “fintech” used in ‘*FINTECH: A Set of 40 Time Sharing Models Used at Manufacturers Hanover Trust Company*’, by Bettinger in 1972. It is used to describe a new industry in the financial sector that is quickly becoming important to banks and other financial institutions. By definition, when an institution provides financial services using technology are, called fintech. Fast-developing FinTech has the potential to upend established parts of the financial sector. Investments in the financial technology sector worldwide have increased from less than \$2 billion in 2010 to more than \$132 billion in 2021 (CBINSIGHTS, 2021). The size of the Indian FinTech sector is predicted to grow from \$50 billion in 2021 to around \$150 billion by 2025 (investindia.gov.in, 2021).

Fintech lending is a lending process utilizing financial technology. Fintech Lending denotes a departure from traditional balance sheet-based underwriting in favor of digitally observable cash flow-based lending. In addition, it involves system-based approvals as opposed to discretionary lending, whereas, in conventional financing, approvals are provided on the basis of delegated authority (Banking Mantra, 2022). The rapid growth of the telecommunications industry has facilitated a massive expansion of the digital lending market. The amount of internet-based lending services has increased tremendously in recent years. The global FinTech lending market is expected to increase from its 2020 valuation of \$449.89 billion to a total of \$4,957.16 billion (Goswami et al., 2021).

One of the most important services offered by fintech is lending, which is evident in the MSME sector. This form of the lending facility gave access to small and medium businesses with no prior credit history (Raj & Upadhyay, 2020). Not just the MSME sector but also the low-income group of people are benefited from that. Digital lending helps to reduce unorganized lending by streamlining and simplifying borrowing procedures and helps to bring financial inclusion in India. Digital lending platforms are also known to reduce expenditure by 30 to 50 percent (RBI, 2021a).

In economics, “supply” refers to the entire amount of a particular commodity or service that’s readily accessible to consumers. There is a substantial market demand for fintech financing; to meet this need, fintech firms have implemented a solid supply chain. The objective of this paper is to review the literature and find out those studies that revealed the supply factors of fintech lending. Some of these factors contribute to the development of the supply line, while others contribute to its retention throughout time.

## II. THE OBJECTIVE OF THE STUDY

This study explores the variables of supply that make up the lending market’s equilibrium with demand.

## III. METHODOLOGY & DATA SOURCES

The methodology used for the study is desk based descriptive study method. The information and data utilized in this report are based on a literature assessment of prior studies on financial technology, digital lending, and fintech lending. Some of the databases the authors reviewed were Scopus, SSRN, Google Scholar, RBI publications, and newspaper articles.

#### IV. SUPPLY FACTORS

The supply must also be robust in order to satisfy the necessary demand. A network between a company and its suppliers for the production and distribution of a given product. Supply factors of lending are as follows; -

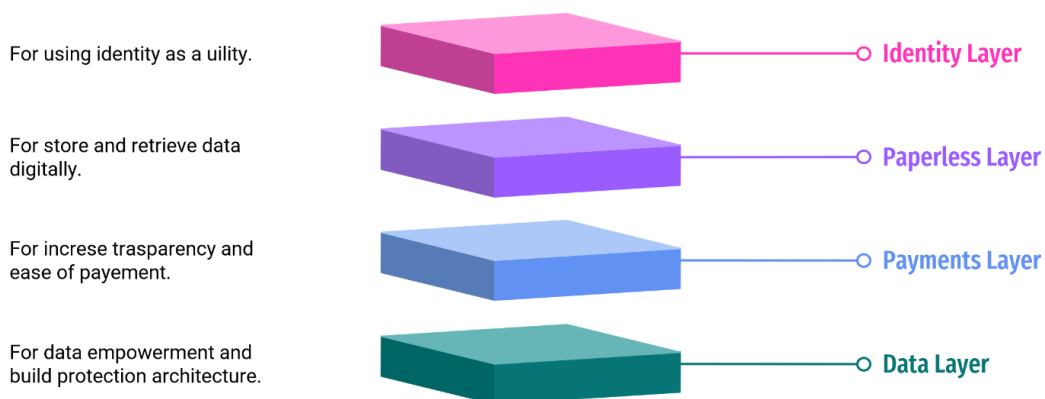
##### 1. Govt. Initiative

Any lending procedure requires a sturdy ecosystem in order to complete the transaction, and for fintech lending government of India plays a major role in supporting that ecosystem. A well-organized lending system must have minimal entry barriers, sound regulation, and a well-kept support structure in which borrowers can easily participate. One of the major problems in the Indian lending sector has faced unorganized borrowings since prior independence. After the banks' intervene in the financial market, the unorganized sector was affected but not that much. But after the fintech lending, things are changing, where the banks lack fintech came for lending. From 2017-21, loan amounts have decreased by 40%, from ₹2.4 lakhs to ₹1.5 lakhs. It demonstrates an amazing increase in micro-loans, bringing more individuals into the formal credit ecosystem (CNBC, 2022). To achieve this ecosystem, the Indian government has taken numerous steps, some of which are listed below:

- PMJDY (Pradhan Mantri Jan Dhan Yojana)** - To access fintech lending, one must have a bank account. A country like India had 557 million unbanked people in 2011. However, with PMJDY, the unbanked population is decreasing steadily. 17.90 crore accounts opened in the first year, which is an increase to 46.25 crore in August 2022 (Ministry of finance, 2022). It brings financial inclusion to the system. Bank accounts are very needed for both the creation of demand and supply in the lending sector.
- UMANG (Unified Mobile Application for New-age Governance)** – It was launched in November 2017 by the union ministry of communications and information technology's national e-governance division (NeGD). This division intends to establish an open-source platform to facilitate the integration of new services created independently by other government agencies. Aadhaar-based e-KYC, document access via Digilocker, and secure payment via PayGov are linked with the apps (The Economic Times, 2016). As per Mr. Madhusudan Ekambaram (Co-Founder & CEO of KreditBee), boosting digital infrastructure, particularly Digilocker, will enable fintech and other financial institutions to evaluate and verify microcredit applications.
- Indian Stack**-The India stack is a collection of application programming interfaces (APIs) designed to connect organizations (Indian government, startups, developers, etc.) and people in India (*India Stack Global – India Global Stack*, 2022), (lend foundry, 2021). An Indian stack consists of four layers (figure 1); the Presence layer deals with the paperless and unique biometric digital identification with open API Access; the Cash layer makes possible paperless payment system; the Paperless layer includes E-KYC that helps to simplify the customer experience for the Aadhaar-registered individuals; Consent layer includes a digital signature that helps sign a document digitally. Lenders can use the payments and documents features to streamline the underwriting, processing, disbursement, and collection of loans by connecting a customer's identity with digital transaction data and so improving the accuracy of credit assessments (Memon & Vibhor–Pande, 2017; Saal et al., 2017).

Figure 1: India Stack

#### Layers of Indian Stack



Source: Authors' creation.

- **Startup Ecosystem-** There are more than 2,000 active FinTech startups in India, according to the DPIIT (Invetindia, 2022). As part of the Startup India initiative, the government has implemented enormous programs to encourage startups across the nation. Fund of Funds for Startups (FFS) Scheme, under this scheme, Govt. created ₹ 10,000 crore corpus fund to support the startups (Ministry of Commerce & Industry, 2022). Under the Credit Guarantee Scheme for Startups (CGSS), the government provides credit guarantees to loan providers for DPIIT-approved startups (Ministry of Commerce & Industry, 2022). Government introduces Startups Intellectual Property Protection (SIPP) to safeguard intellectual property and facilitate the rapid review and resolution of patent applications (Ministry of Commerce & Industry, 2022). Startup India Seed Fund Scheme (SISFS), Beginning in 2021–2022, the SISFS Programme will get ₹ 945 crores (or \$1.4 billion) in funding for a total of four years for startups to prove their concept, making a prototype, testing the product, going to market, and commercializing their product (Ministry of Commerce & Industry, 2022). Also, create various laws, giving tax benefits and ranking & award systems for the betterment and encouragement of the startups.

## 2. Smartphone and Internet Adoption

Fintech lending requires high-quality IoT-related items to provide a steady supply. As of 2020, 54% of Indians were using a smartphone, and this number is expected to rise to 96% by 2040—more than doubling from FY2016's 23% (Statista, 2022). The number of smartphone user will cross 1 billion in 2023 (Business line, 2022). The rise of the smartphone facilitates improved financial planning on the part of businesses, corporations, and individual consumers (Jung et al., 2018). Not just for smartphones, mobile data is becoming less expensive yearly (Business line, 2022), and average consumption is increased to 17 gb monthly (Business line, 2022). This affordability and high-quality data are what's driving the country's succeeding economic boom. The percentage of the population with internet access demonstrates the widespread adoption of the lifestyle of digital India (Prakash, 2023). There will be more than 700 million smartphone users in India by 2021, up from 100 million in 2014 (India today, 2022). This adoption shows no slowdown. Therefore, this figure will likely increase further in the future. As a result, almost everyone in India can now connect online (Gupta et al., 2023). The widespread adoption of FinTech lending apps can be directly attributed to the proliferation of cheap smartphones and the fall in the price of broadband internet access (Gupta et al., 2023; India today, 2022).

## 3. Alternative Data

There have been many developments in technology that have allowed for the establishment of a reliable supply line for Fintech lenders. Typically, lenders consider a number of factors, including the applicant's credit history, credit use, the terms and execution of previous loans, and the types of credit used, before extending credit. Any information not directly related to a customer's credit history is considered alternative data. This data includes the person's regular financial commitments with numerous non-traditional data sources. It includes a person's digital footprint, but is not limited to, their browsing history, app usage, geolocation, rental payments, mobile bill payments, small loans, travel history, online shopping, government transactions, property records, social media activity, and other personal information (TOI, 2022). All of this data processing is possible with the use of AI (Anil & Misra, 2022; Dietzmann et al., n.d.), deep learning (Bastani et al., 2019; Tan et al., 2018), data analytics (He et al., 2020) and anonymous metadata (KPMG, 2021) (TOI, 2022). The fintech lenders adopted a model based on technology that required less human input and had low operational costs.

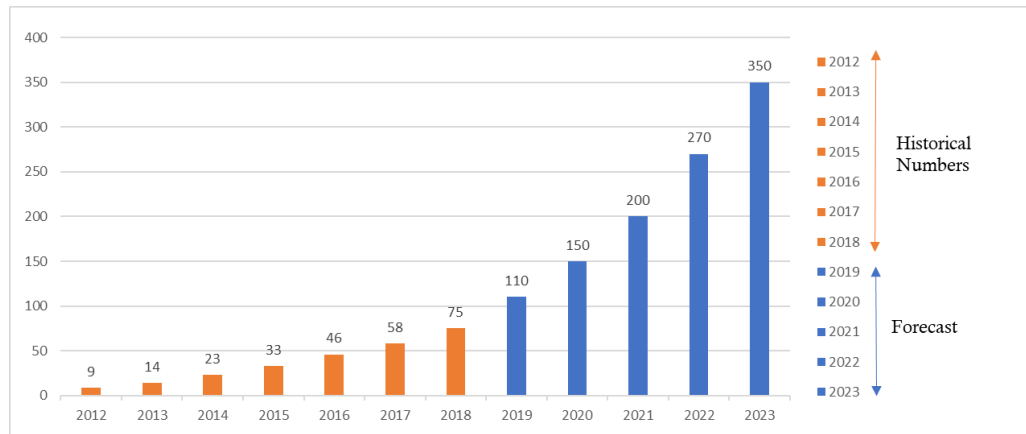
## 4. Lending Guidelines

Throughout the epidemic, there was a noticeable change in how fintech lending was practiced. It has been estimated that the number of downloads of lending applications surged by 21% during the Covid-19 epidemic following the advent of the virus (Fu & Mishra, 2021). One of the most rapidly expanding areas of the Indian fintech industry is digital lending, which is expected to reach approximately \$150 billion by 2020, up from just \$9 billion in 2012. By 2023, the digital lending sector was predicted to be worth about \$350 billion (figure 2) (BCG, 2018). A hike in digital lending usage comes with issues (Fletcher, 2007) such as online anonymity and jurisdiction and access control, which aren't exclusive to digital lending but rather to any criminal activity involving information technology (RBI, 2021b). Consequently, it requires a competent regulatory agency and legislation that work for customer safety and helps the development of an ecosystem for fintech lenders.

The Reserve Bank of India (RBI) issued guidelines on the 10th of August aimed at strengthening the regulatory environment for such activities in order to allay the concerns raised by credit delivery via digital lending methods. The RBI classified lenders into three groups: those subject to RBI supervision, those subject to the supervision of some other statutory body, and those that are outside the jurisdiction of any statutory or regulatory requirement. RBI mandates some guidelines for RBI-regulated entities (REs); 1<sup>st</sup> is, Transfers of funds for loan disbursements and repayments must be made directly between the borrower's bank account and the regulated entity's bank account; 2<sup>nd</sup> is, Annual Percentage Rate (APR) must be provided to borrowers for digital loans; 3<sup>rd</sup> is, Borrower authorization is required for any increase in credit limit amounts; 4<sup>th</sup> is, These apps must also allow borrowers to approve or refuse consent for the usage of specific data, cancel previous consent, and delete DLA/LSP-collected data; 5<sup>th</sup> is, Reports of loans (BNPL included) made through digital lending platforms must be sent to CICs (Central Information Commission); 6<sup>th</sup> is, Boundaries on the guarantor's

responsibility for the first default are being analysed (Business Standard, 2022). Other than REs, The RBI established a working group to examine this issue at the beginning of 2021, and it has since urged the relevant regulatory/controlling authority/central government to issue guidelines according to the results of that group (Fu & Mishra, 2020).

**Figure 2: Digital lending prediction**



**Source:** Authors' creation based on the data published by BCG, 2018

## V. CONCLUSION

Fintech in India has proven its ability to provide new services and broaden access to the financial system. Fintech companies revolutionize the financial services industry with their unique approach to doing business. When it comes to lending, India has a long-standing problem with unorganized institutions, whereas fintech lending has the potential to change that. But things will improve once a reliable route is established between lenders and borrowers. This research aims to examine the supply drivers for fintech lending and identifies four aspects that significantly impact the industry. For an effective supply chain, a healthy ecosystem is essential. Government initiatives are necessary for the development of such an ecosystem. Government initiatives in India include the Financial Inclusion Program (PMJDY), the Unified Mobile Application for New-age Governance (UMANG), the Indian Stack, and the Startup Ecosystem Development Program. Despite the fact that smartphones and the internet were not designed for this function, all fintech services eventually benefit from this. But these fintech lenders use this opportunity to understand users' alternative data, which was not previously used by traditional lenders. So, there is a chance arises where customers can come under any fraud or exploration. However, the majority of fintech companies in India conduct business via banks or NBFCs. Still, RBI created some criteria for user data, credit limits, the elimination of middlemen, and other remedies to ensure the continued protection of its users and for the sable lending system.

Fintech in India is expanding at an unprecedented rate. A recent study found that digital lenders a total of 2.74 crore loans through their balance sheet in the first half of FY22 (BFSI, 2022.). The volume of digital loan disbursements increased by a stunning 153% over the previous year. The total value of distributions rose by 62%. Personal loans represent 96 percent of the overall quantity and 66 percent of the overall value(BS, 2023). A report by the FACE says that over 18 million loans already disbursed in Q3FY23. All these reports suggested a good demand and supply for lending in the market. As it seems the fintech lending industry will continuously grow and be profitable while simultaneously reducing the country's massive credit deficit, which will have positive effects on the country's economy and society.

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