



Digital Lending in India: A Review of Opportunities, Challenges, and the Evolving Regulatory Landscape

Lloyd S F¹, Dr.G Sridharan²

Research Scholar, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore, Tamil Nadu, 641046, India¹

Associate Professor, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore, Tamil Nadu, 641046, India²
lloydsfbu@gmail.com¹, sridharan@buc.edu.in²

Abstract: Digital lending is significantly transforming the India's credit landscape, driven by technological advancements and foundational digital public infrastructure like the India Stack. This review article consolidates existing literature, recent industry reports, and key regulatory frameworks to provide a comprehensive analysis of the sector's current situation and the future trajectory. The paper points out the immense opportunities offered by digital lending, including the enhancement of financial inclusion for previously underserved populations and Micro, Small, and Medium Enterprises (MSMEs), and significant gains in operational efficiency. Nevertheless, these opportunities are met with considerable challenges such as navigating dynamic regulatory environment, managing credit risks associated with new-to-credit customer, addressing ethical concerns of algorithmic bias, and addressing the ongoing digital literacy gap. The article concludes that the sustainable growth of digital lending relies heavily on a balanced strategy. It argues for forward-looking strategy that incorporates adaptive regulation through RegTech and Self-Regulatory Organizations (Copromotes responsible AI and collaborative models like Co-Lending and prioritizes customer protection along with financial literacy

Keywords: Digital Lending, FinTech, India, Financial Inclusion, Regulatory Framework, Algorithmic Bias, MSME Finance.

1. Introduction

The Indian financial services sector is experiencing a significant technological transformation, with technology redefining traditional financial services and innovating new models. This is driving the paradigm shift of credit availability, transitioning from the traditional setting of bank visits to the widespread accessibility of credit through mobile devices. Digital lending is defined as "A remote and automated lending process, largely by use of seamless digital technologies for customer acquisition, credit assessment, loan approval, disbursement, recovery, and associated customer service" (RBI, 2025). This approach is fundamentally different from traditional lending practices which includes extensive paperwork, longer processing

periods and reliance on traditional credit bureau information.

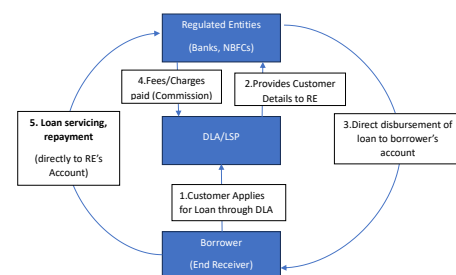


Fig. 1 Digital lending Framework in India.

The India Stack, Digital Public Infrastructure has become the foundation for the rapidly evolving Digital Lending ecosystem in India. Aadhar, the unique biometric system; Unified Payments Interface (UPI), the instant real-time payment system; and eKYC, the electronic know-your-customer process has fundamentally transformed the lending landscape (IMF,2023).

Aadhaar eliminates physical documentation for every Indian by providing a universal and verifiable digital identity. This is further enhanced by eKYC which allows for instant and remote personal identity verification, drastically reducing client on-boarding time and costs for lender. Finally, UPI facilitates seamless and instantaneous loan disbursement directly into a borrower's bank account and simplifies loan repayments through automated mandates (Finezza,2024). This Infrastructure enable a completely digital and seamless process for both borrowers and lenders, thereby bringing down the cost and increasing the efficiency and availability of credit for millions of people in the country. Digital lending services have transformed into one of the rapidly expanding sectors in India, with projections indicating that its market size could hit USD 515 billion by 2030, growing at a CAGR of 33.5% (IIFL Fintech Dossier, 2023). This rapid expansion is in line with objectives of the "Digital India Mission" and goal of creating 5 trillion-dollar economy, primarily by providing credit access to the underserved segments.

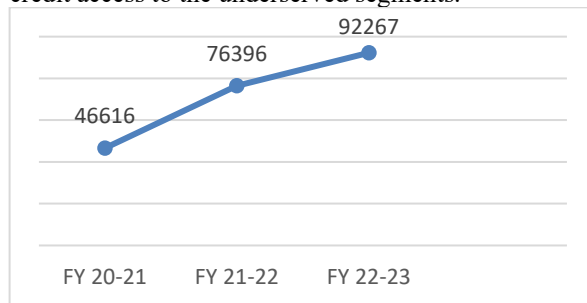


Fig. 2 Loan amount disbursed through digital lending (in crores)

Despite the high growth potential of Digital lending in India, there exists challenges as well. The central argument of the review is that while digital lending in India has the potential to deepen the financial inclusion and fuel the economic growth, It also has to deal with challenges such as potential for customer exploitation, data privacy breaches and financial stability risks. As the long-term viability of this eco system heavily depends on evolving regulatory framework in order to address these challenges while balancing between Innovation and compliance.

This review article aims to provide a Comprehensive outline about evolving Digital lending landscape in India. It will start with exploring the opportunities offered by the Digital lending with respect to covering New-to-Credit (NTC) Customers and addressing the credit gap of MSMEs. Next it will assess the challenges such as unfair lending practices by unauthorized DLAs, data security issues and complex algorithmic biases. Finally, the article will analyze the recent and timely regulatory interventions by Reserve Bank of India intended to improve the ecosystem, concluding with insights on future direction of digital lending in India.

2. Opportunities in Digital Lending Services

2.1 Enhanced Financial Inclusion

One of the most impactful benefits of digital lending is its ability to make credit accessible for wider group of people and promote financial Inclusion (Stripe,2024). In past years, a large group of population has been excluded from accessing the formal credit system (Transunion,2022). Digital lenders are progressively coming out of this situation by providing lending services to unserved and underserved individuals in semi-rural and rural areas (Stripe,2024).

This outreach is mainly facilitated by the rising digital adoption of the nation. As of 2024 end, the India had 886 million internet users (Internet in India Report,2024). This digital presence along with strong foundation of 56 crore Pradhan Mantri Jan Dhan Yojana (PMJDY) Accounts (PMJDY Website) forms a huge market opportunity for digital lending. Lenders now have the opportunity to connect with "New-to-Credit" (NTC) Customers by providing them initial experience of formal credit through small value loans such as Buy Now Pay Later (BNPL) or Micro credit. However, studies also highlight concern about the risk of hidden debt traps associated with such products (World Bank,2021).

2.2 Operational Efficiency and Speed

Digital lending represents a paradigm shift in how operations take place. Through the automation of the entire loan life cycle, Digital lending platforms have significantly lowered costs and minimized loan processing times. A key performance indicator of this transformation is reduction of Loan Turn Around Time (TAT). Unlike traditional lending practices, which may require days or even weeks to process, a digital lender can effectively deliver a decision and

disburse funds in just minutes leveraging technologies like Artificial Intelligence and Machine Learning (PwC,2019). This increasing efficiency reduces the cost of service, allowing lenders to provide small-ticket loans in economically feasible way.

2.3 Innovation in Credit Assessment

A significant development in the digital lending landscape is the integration of alternative data to create more comprehensive credit profiles. The emergence of frameworks such as the Account Aggregator (AA) system and the Open Credit Enablement Network (OCEN) is set to revolutionize the digital lending landscape, enabling lenders to securely and instantly access a borrower's verified financial information, fostering a more competitive and information-rich environment for underwriting (Invest India,2023; Forbes,2023).

2.4 Economic Stimulus for MSMEs

India's Micro, Small and Medium Enterprises (MSMEs) have historically encountered significant credit gap, which is estimated to be over ₹29 trillion (approx. \$333 billion) (International Finance Corporation, 2025). Digital lending platforms have emerged as a critical source for funding this sector, leveraging alternative data such as GST returns and bank statements to make quick lending decisions, which plays significant role in economic growth and job creation.

3. Risks and Challenges in the Digital Lending Landscape

3.1 Steering through a Dynamic Regulatory Landscape

The expansion and growth of Digital lending landscape have necessitated the policymakers to have an eye on the environment. The Reserve Bank of India (RBI) has responded with comprehensive Digital Lending Master Directions 2025. These directions expand upon the foundational 2022 guidelines on Digital lending. Some of the key new arguments in this master directions include enhanced transparency and grievance mechanism to protect borrower's interest and the introduction of mandatory 'cooling-off' period for first-time borrowers of high-cost loans, allowing them to cancel the loan without penalty within certain time period (Reserve Bank of India, 2025).

While these are essential measures for the customer protection, managing these evolving rules alongside with the strict provisions of Digital Personal Data Protection

(DPDP) Act, 2023 (Ministry of Law and Justice, 2023), requires considerable legal and operational resources, creating significant challenges for smaller FinTech firms.

3.2 Data Protection and Algorithmic Bias

Although data driven models promote inclusion, they also create risks. Early malpractices like public-shaming (New York Times,2021) highlighted the potential risks of data misuse. RBI released Digital lending guidelines on 2022 which have laid foundational norms for addressing and minimizing these risks (RBI,2022). However, the new challenge is more subtle - algorithmic bias. Recent studies indicates that application of machine learning models in lending, if not carefully applied might lead to creation of new forms of digital redlining (Christine Polek & Shastri Sandy,2023).

3.3 Credit Risk and Asset Quality

The ease of accessing credit has led to concerns regarding rising indebtedness among young borrowers and an increase in loan default rates in small-ticket, high-risk personal loan segment. Recent Industry reports indicates that although the credit market is robust, the 90+ days-past-due (DPD) delinquency rates for personal loans sourced by FinTechs are significantly greater than those for traditional Banks and NBFCs (Experian,2024). This underscores the inherent risk involved in underwriting "New-to-Credit" customers using alternative data models, whose reliability has not been fully tested during a significant economic downturn.

3.4 Digital Divide and Financial Literacy

Although digital lending aims to promote financial inclusion, it simultaneously poses a risk of exploiting those who are less familiar with the technology. India still faces a significant digital literacy gap, especially in rural areas and among older generations (NSSO,2021). These individuals are susceptible to deceptive app interfaces, hidden charges and fraud schemes. The utility of Key Fact Statement (KFS) is limited if the borrower does not possess the financial knowledge needed to understand terms such as Annual Percentage Rate (APR) or the long-term implications of a loan's terms and conditions, turning a tool meant for empowerment into a source of potential distress.

4. The Way Forward: Fostering a Responsible Ecosystem

The long-term success of digital lending relies on a collaborative effort to balance innovation along with governance. The future trajectory should shift from reactive problem-solving to proactive ecosystem-building.

4.1 Strengthening the Regulatory and Supervisory Framework

The future of oversight lies in leveraging technology itself. It is crucial for RBI to adopt RegTech (Regulatory Technology) and SupTech (Supervisory Technology) to effectively supervise thousands of digital lending applications available in the market. Additionally, formally empowering Self-Regulatory Organizations (SROs) like FACE with greater authority to enforce binding code of conduct can establish a more responsive regulatory framework that serves as a first line of defense, enhancing the oversight provided by the RBI (RBI - SRO, 2024).

4.2 Fostering Responsible AI and Data Ethics

Addressing algorithmic bias requires a shift towards Explainable AI (XAI) and responsible innovation. The industry must take initiatives to proactively develop frameworks for fair lending audits to ensure that their models are not discriminatory. The principles outlined in the discussion paper on Responsible AI by NITI Aayog can act as a guiding framework for lenders to develop models that are transparent, fair, safe and reliable (NITI Aayog – Principles for Responsible AI, 2021).

4.3 Deepening Ecosystem Partnerships

The future of lending does not lie in a competition between banks and FinTechs, but in mutual beneficial collaborations. The Co-lending model, encouraged by the RBI serves as a perfect illustration. This model allows banks to leverage their low cost of capital and regulatory expertise, while Fintechs contribute their technological agility in attracting customers and addressing credit worthiness. These types of collaborations are essential for scaling up credit delivery to the priority sector while minimizing risks.

4.4 Enhancing Customer Protection and Literacy

Ultimately, a sustainable market is the one where the customer is empowered. Regulatory mandates such as Key Fact Statement (KFS) must be complemented with extensive financial and digital literacy initiatives. There is a growing consensus that lender should take part in sharing the responsibility for educating their customers. Furthermore, leveraging technology to create more efficient

and accessible grievance redressal mechanism, integrated with RBI's Ombudsman scheme is essential for fostering customer confidence.

5. Conclusion

In summary, the digital lending ecosystem in India stands at a pivotal moment. It represents a paradigm shift with the proven potential to make credit more accessible, but simultaneously it also comes with significant risks that could undermine customer confidence and financial stability. This review has underscored the key point that the future of this sector will not be solely determined by technological advancements, but will also depend on the prudence of its regulatory framework and ethical commitment of its stakeholders.

The analysis has shown that while opportunities for inclusion and efficiency are immense with digital lending, they are balanced with the challenges of compliance, data governance, credit quality and the digital divide. The way forward requires a multifaceted approach that strengthens regulatory framework with technology and SROs, fostering responsible AI, deepening ecosystem partnerships and placing customer protection and literacy at the forefront.

Ultimately, the transformation of digital lending from a disruptive force into a sustainable pillar of Indian Financial System will depend on the collective commitment of the stakeholders to build an ecosystem which is not only efficient, but also equitable, transparent and secure.

References

- [1] International Monetary Fund, "Stacking up the Benefits: Lessons from India's Digital Journey," IMF Working Paper No. 2023/078, 2023.
- [2] Finezza, "What is the India Fintech Stack: A Guide to Seamless Digital Lending for NBFCs," Finezza Blog, Nov. 4, 2024. [Online]. Available: <https://finezza.in/blog/india-fintech-stack-guide-to-seamless-digital-lending/>.
- [3] Stripe, "Digital lending – the basics: How it's changing banking and loan servicing industry," Stripe Resources, Nov. 28, 2023. [Online]. Available: <https://stripe.com/in/resources/more/digital-lending-101-how-its-changing-the-banking-and-loan-servicing-industry>.
- [4] TransUnion CIBIL, "More than 160 Million Indians are Credit Underserved," TransUnion CIBIL Newsroom, Apr. 25, 2022. [Online]. Available: <https://newsroom.transunioncibil.com/more-than-160-million-indians-are-credit-underserved/>.
- [5] Business Standard, "CIBIL score not mandatory: Govt tells banks not to reject first-time loans," Business



- Standard, Aug. 25, 2025. [Online]. Available: https://www.business-standard.com/finance/personal-finance/cibil-score-not-mandatory-govt-tells-banks-not-to-reject-first-time-loans-125082500426_1.html.
- [6] S. R. Menon, "Account Aggregator: India's Next Digital Innovation," Invest India, Feb. 24, 2023. [Online]. Available: <https://www.investindia.gov.in/team-india-blogs/account-aggregator-indias-next-digital-innovation>.
- [7] R. Rai, "How OCEN Is Democratizing Credit Access In India," Forbes, Jan. 26, 2023. [Online]. Available: <https://www.forbes.com/sites/rahulrai/2023/01/26/how-ocen-is-democratizing-credit-access-in-india/>.
- [8] The New York Times, "Using Shame, Lending Apps in India Squeeze Billions out of the desperate," The New York Times, Mar. 26, 2021. [Online]. Available: <https://www.nytimes.com/2021/03/26/business/india-lending-apps.html>.
- [9] International Finance Corporation, "MSME Finance Gap: An updated and Evolution of the Micro, Small and Medium Enterprises (MSME) Gap in Emerging and Developing Markets," 2025.
- [10] Reserve Bank of India, "Reserve Bank of India (Digital Lending) Master Directions, 2025."
- [11] Ministry of Law and Justice, Government of India, "The Digital Personal Data Protection Act, 2023."
- [12] Reserve Bank of India, "Guidelines on Digital Lending," 2022.
- [13] Christine Polek and Shastri Sandy, "The Disparate Impact of Artificial Intelligence and Machine Learning," Colorado Technology Law Journal, Vol. 21, No. 1, 2024.
- [14] Experian, "Small is Big: How Fintechs are Revolutionising Lending," 2024.
- [15] Ministry of Statistics and Programme Implementation, Government of India, "Multiple Indicator Survey in India- 78th round," 2021.
- [16] NITI Aayog, "Principles for Responsible AI," 2021.
- [17] Reserve Bank of India, "Omnibus Framework for Recognising Self-Regulatory Organisations for Regulated Entities of the Reserve Bank," 2024.