

Improving Access to Credit with Inclusive Innovations



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Start here if you're new to financial inclusion as a topic. The Annexure might interest you for additional context.

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A quick overview of the financial inclusion landscape in India

Start here if you already get the basics.

II. Customer Personas & Their Challenges

Who are customers most in need of intentional financial inclusion support?

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An innovation framework, case studies, and an innovation map

01. Innovation Framework
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 - A. Infrastructure Innovation**
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This is the meat of the matter.

You can skip straight to this section if you know who India's financially underserved are.

IV. Annexure

A deep dive into the challenges, constraints and innovation opportunities

Research Methodology

Primary:

Experts and stakeholders consulted

Industry & Policy Institutions

Reserve Bank Innovation Hub (RBIH), Fintech Association for Consumer Empowerment (FACE), Open Network for Digital Commerce (ONDC), Account Aggregator (AA), Indian Banks' Digital Infrastructure Company (IBDIC), D91 Labs

Regulatory insights on data interoperability, credit infrastructure, and inclusion frameworks

Fintech Founders & Practitioners

Zeny, Anniyam, cGreen, Credin, Rang De, Kosh, Sub-K, MAKSPay, Light Microfinance, Kaleidofin, Xaults

Shared firsthand perspectives on borrower behaviour, operational constraints, and impact pathways

Subject-Matter Expert

Vaibhav Anand (Credochain): Onboarded as credit advisor to validate approach and insights, lending logic, and policy context

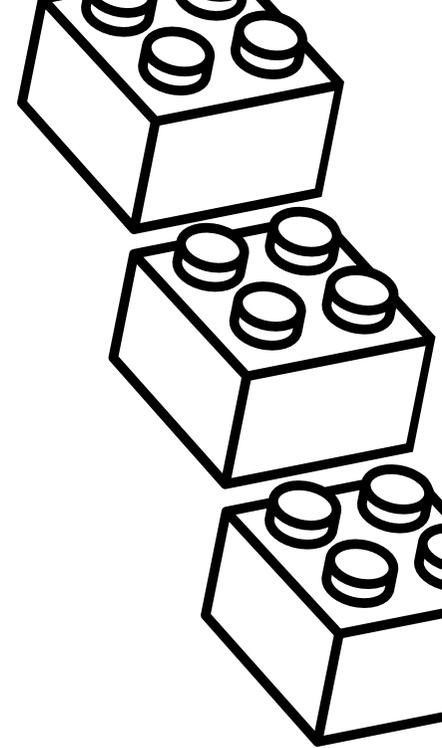
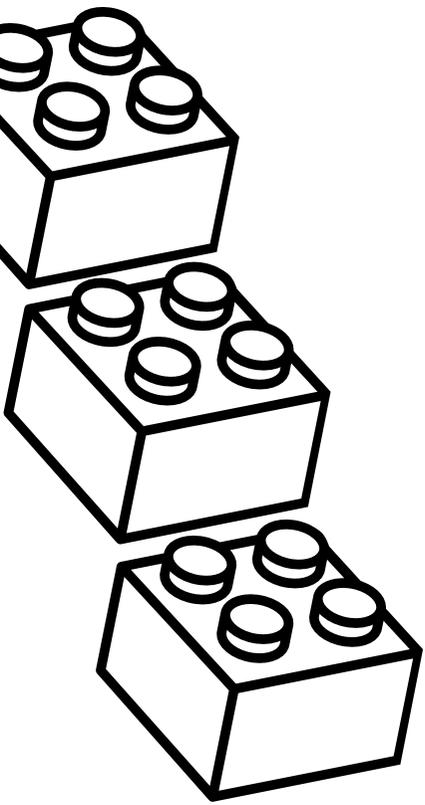
Secondary:

Databases and secondary sources

- RBIH database of inclusive startups (as on 29th April 2025)
- Venture portfolios: Accel, Blume, Kalaari, Sequoia, Omidyar, and other leading early-stage investors
- Public data repositories: Digital Public Infrastructure (DPI), ONDC, AA ecosystem reports, and Non-Banking Finance Corporation (NBFC) regulatory filings
- Industry reports & research papers from World Bank, BCG, MicroSave, and CRIF
- Fintech platforms & websites for business model, product structure, and impact data

Case study selection approach

- Built a mutually exclusive and collectively exhaustive framework to categorise innovations
- Scanned multiple databases to shortlist 1-2 unique case studies per innovation type, within each innovation category
- Defined unique as “first to market” or “scale achieved” or “differentiated USP”



At first glance, it seems like all the building blocks for inclusive access to India's credit landscape already exist.

- An interoperable, widely used digital payment system
- Digital public infrastructure designed to improve financial inclusion
- Emerging technologies like Artificial Intelligence (AI), machine learning (ML), and blockchain, that can unlock value across customer segments

Yet, stories like these are common:



Rakhi is a member of self-help groups through which she has borrowed in the past, **but she has never engaged with formal financial institutions.**

Though she knows of the Kisan Credit Card scheme, she is fearful of banks and does not know how to apply and access it.



Suresh is a 28-year-old ride-hailing driver in Mumbai. He owns a scooter and rents a small room in the city.

His income fluctuates daily between ₹8,000-15,000 a month, based on the number of rides he completes.

He dreams of supporting his family better by leasing a second vehicle, **but is rejected by bike showrooms as he cannot prove his income stability.**

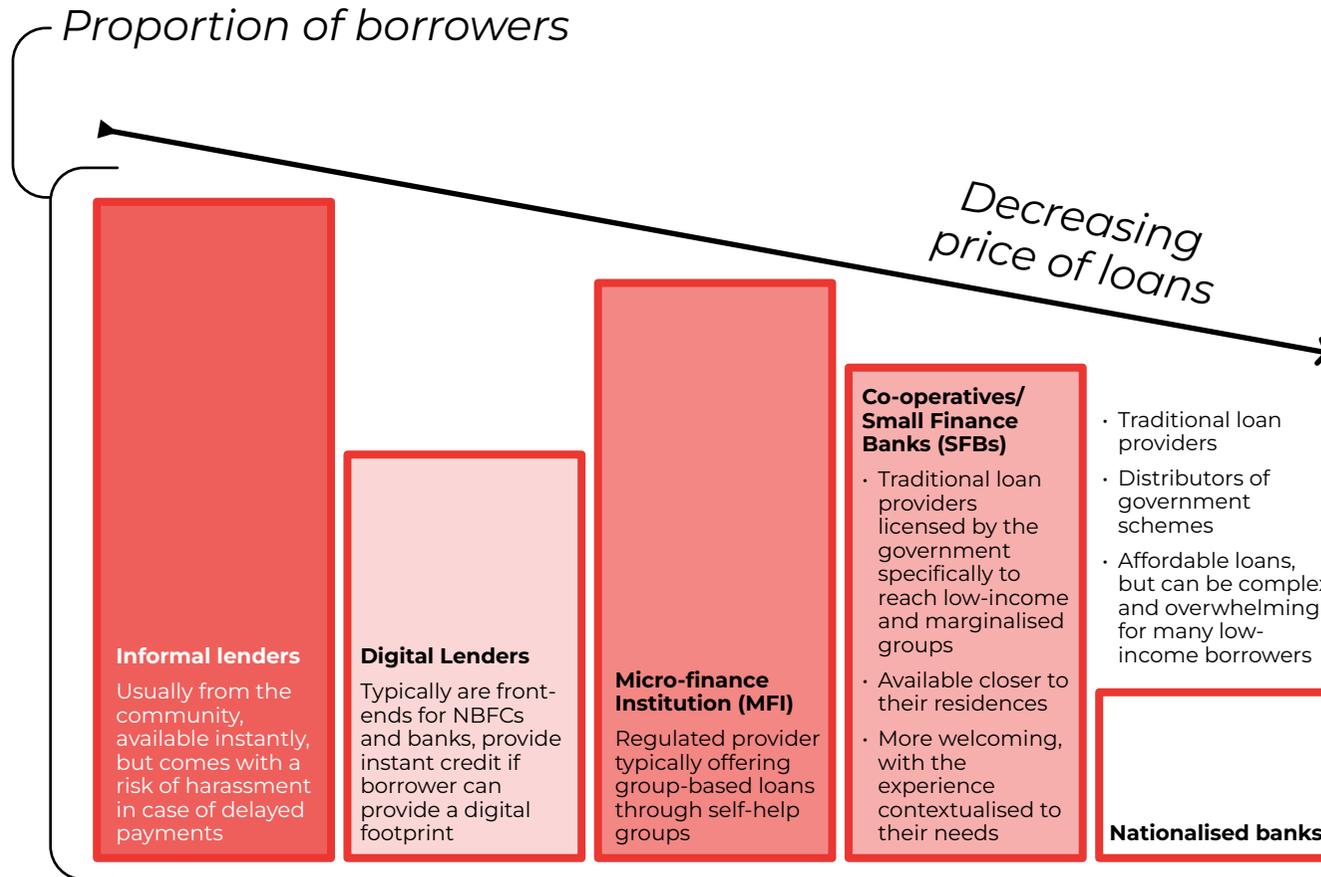


Raghu and his wife run a dairy farm in their village, often in need of working capital to buy cow feed or grains.

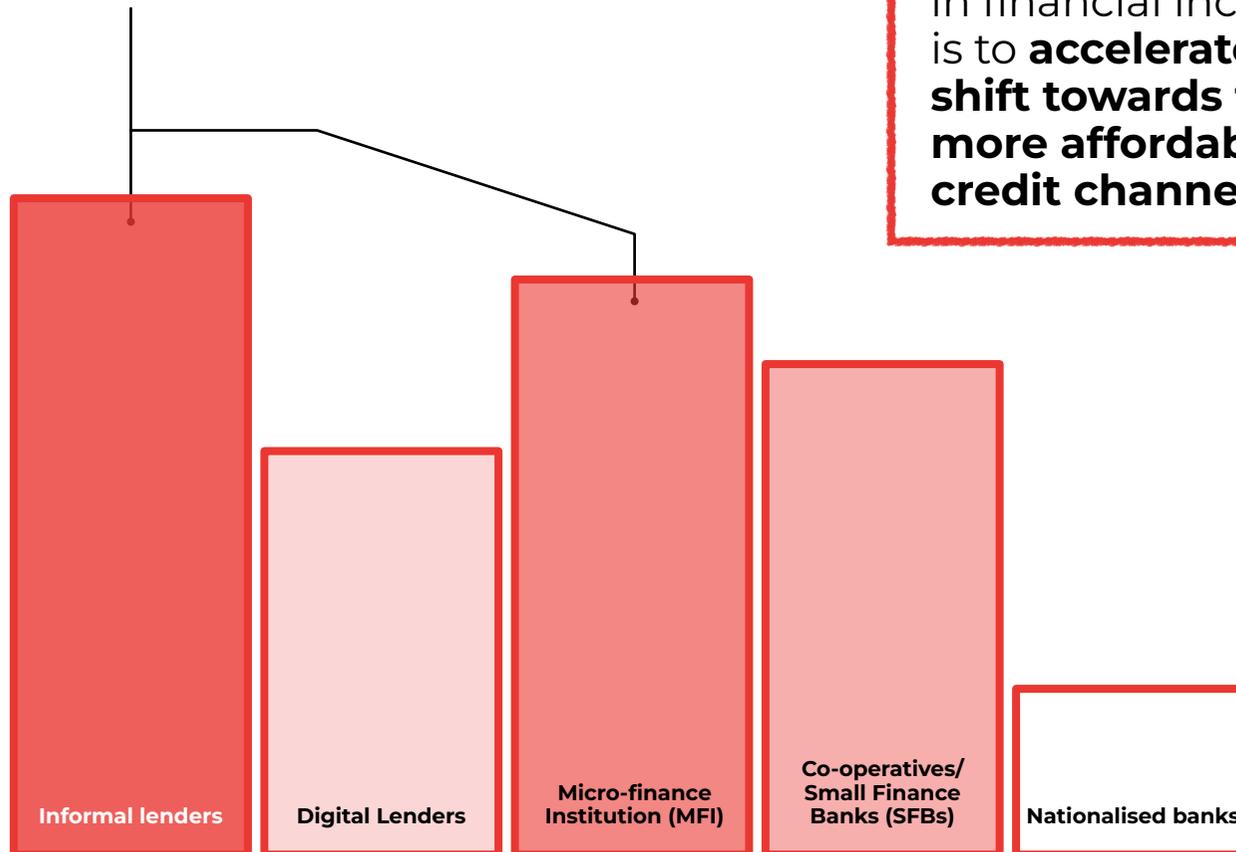
With predominantly cash-based transactions and the absence of necessary business documents, **they remain ineligible for most government schemes and formal loans.**

Loans from informal lenders or digital platforms end up spent on more urgent personal needs, leaving them in a continuous debt trap.

In broad terms, this is India's lending landscape:



Right now, this is where Rakhi, Suresh, Raghu, and millions of other Indian borrowers are.



The role of innovation in financial inclusivity is to **accelerate the shift towards formal, more affordable credit channels**

Here's what we learned about such borrowers

Broadly, there are **three overlapping kinds of them:**

70 million

New-to-credit borrowers

Phone/data usage



Digital literacy



Financial literacy



Financial autonomy



60 million

Nano- or micro-business owners

Phone/data usage



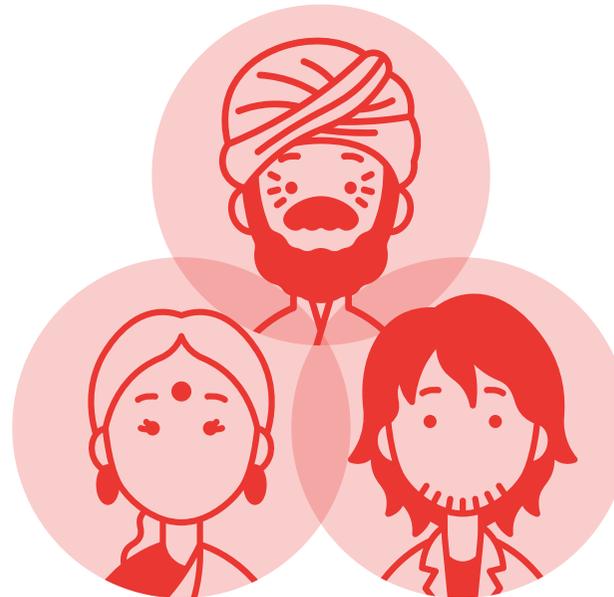
Digital literacy



Financial literacy



Financial autonomy



12 million

Gig Workers

Phone/data usage



Digital literacy



Financial literacy



Financial autonomy





The new-to-credit borrower

Low-income borrowers with little or no prior experience with formal borrowing or credit history. Some examples in this category:

A. Rural residents

Rural residents engaged in agriculture or small-scale businesses, often excluded from formal credit due to lack of documentation or banking access, despite eligibility for government schemes.

B. Women or other marginalised

Includes women or marginalised groups with limited property rights or social barriers to formal finance, despite otherwise having access to MFI loans.



Nano- or micro-business owners

Owners of MSMEs, 97% of which are micro enterprises, of which 80% are informal, lacking a GST number. Over half are based in rural India. Some examples in this category:

A. Nano business owners

eg: Street vendors or small shops involved in micro businesses such as food service, and vegetable sales. Most are family-operated, bootstrapped, and stuck in debt cycles

B. Small business owners

Many women supplement family income via micro enterprises from home including selling food, handlooms, or beauty services. Earned money is usually kept at home, without the compounding benefits of a financial institution



Gig workers

Industry reports say the gig economy is expanding at a CAGR of 30-35%. At present, ~47% of the gig work is in medium-skilled jobs, ~22% in high-skilled, and ~31% in low-skilled jobs

A. Platform-based gig worker

Typically involved in low-skill work like ride-hailing and delivery. They have an employee-like identity, but lack the associated benefits, like insurance or fixed salaries.

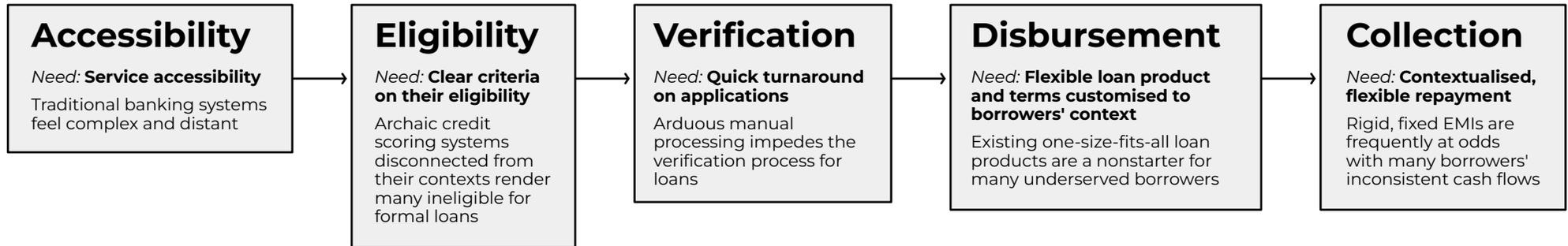
B. Entrepreneurship-led gig worker

People who operate as micro or small businesses, while also managing a fleet of vehicles or drivers.

These workers steadily build managerial and business expansion skills.

These are the challenges they face

Most low-income borrowers face similar challenges across the loan user journey.



These barriers are further exacerbated by provider constraints, at each stage.



A closer look at **the innovations**

The innovation framework

Infrastructure

The fundamental building block that unlocks access and usage of financial services, especially among underserved users. Driven by the government, it comes with major implications for private sector builders—improving time-to-market and economics of delivery and distribution, alongside rigorous, regulated customer protection

Technology

The pillars that enable innovators to leverage existing infrastructure to improve the efficiency, economics, and experience of products—in differentiated, contextualised ways

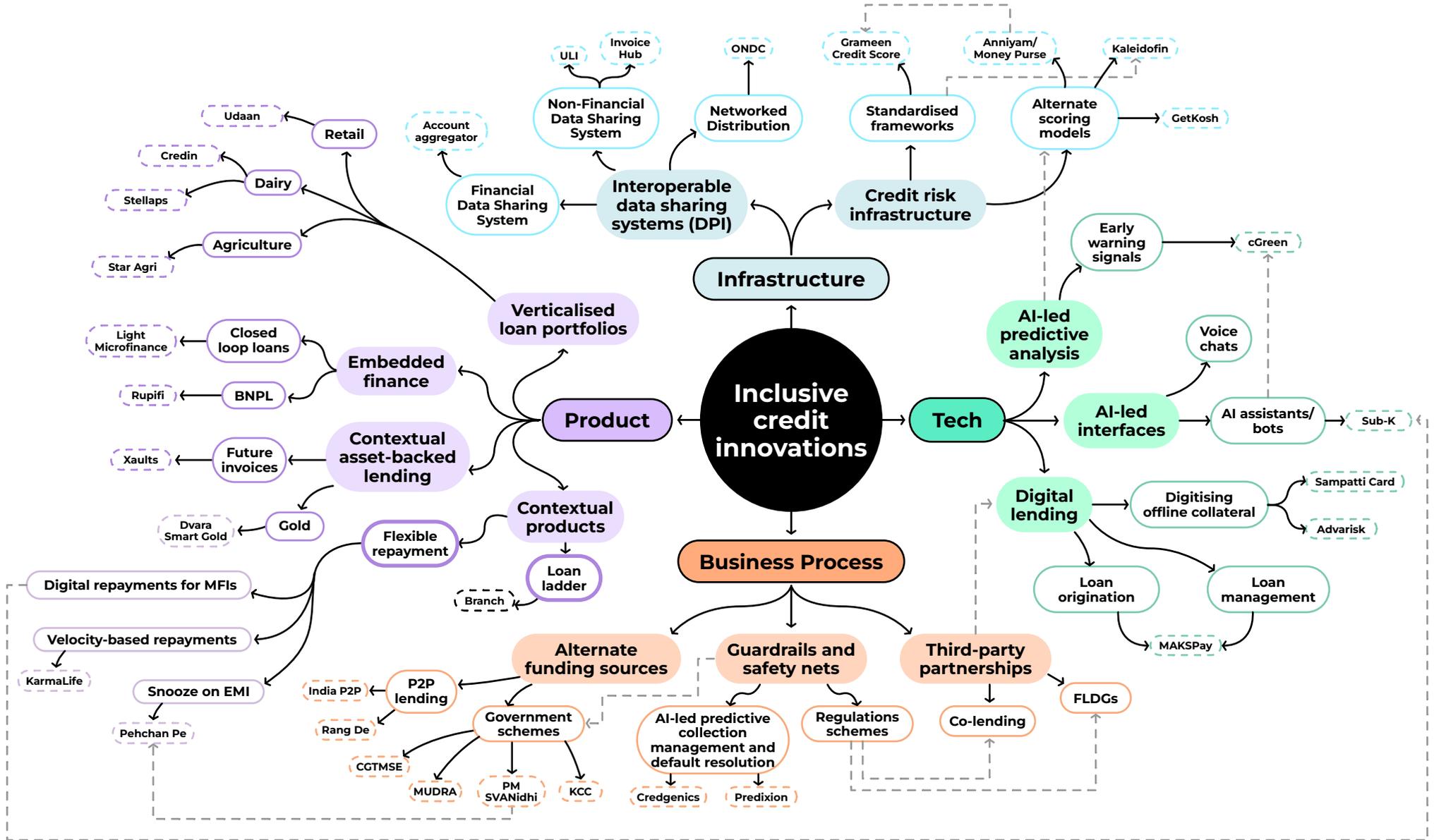
Product

The design of consumer-facing solutions, which is where most activity lies, since startups, banks and private sector actors can experiment with fewer dependencies

Business

Innovation that looks for feasible ways to enable and enhance distribution of all of the above

First, an overview:



Now, let's dive in.



Infrastructure design

- Top-down, standards-driven strategy led most often by the government, or institutions like the Reserve Bank of India
- Enables secure, consented data sharing and reusable services across public and private actors
- Supports composable building blocks like account aggregators, unified lending interfaces, and standardised credit scores.
- **Designed for scalability, resilience, inclusivity, and economic sustainability**

A glimpse into the future

- **Seamless, real-time data ecosystems:** In the near future, interoperable, consent-based data sharing platforms will securely and continuously update borrower data, from financial, behavioural, social, and utility sources.
- **Ubiquitous credit scoring:** Standardised credit scores will evolve into multi-dimensional, context-aware credit identities, embedding themselves in everyday life activities
- **AI-driven risk assessment and fair lending**
AI use in credit decisioning—as outlined by the RBI's new guidelines—will foster fairer, faster approvals, especially for low-income and informal sector borrowers—potentially reducing NPAs by 5-10% for digital lenders.
- **Security and resilience:** Decentralised data architectures like blockchain will underpin secure, fraud-resistant credit infrastructure, affirming trust in digital lending.

Digital Public Infrastructure, or DPI

Interoperable, consent-based data-sharing systems and platforms

India now allows financial institutions as well as other entities to share data, with consent from the borrower.

This offers credit providers access to data that was previously inaccessible to them, allowing them to serve new cohorts of underserved borrowers—especially ones without a financial trail.

There are four kinds of

DPIs

Financial data sharing systems

Secure, consent-driven APIs that let:

- Lenders access standardised financial records interoperably, to assess creditworthiness without moving raw data
- Borrowers find the most contextually relevant products and make informed decisions

Non-financial data sharing systems

These are platforms and APIs that share verified alternative business, utility, or behavioural data to enrich borrower profiles and enable lending to thin-file customers

Networked distribution

Open, interoperable marketplaces and connector networks that expand financing channels by linking lenders, merchants, and service providers

Credit risk infrastructure such as standardised frameworks and scores:

Innovators—including the government—are aiming to create a credit identity for low-income customers, empowering them to make informed decisions on their eligibility.

These involve assessing such borrowers in standardised frameworks, while leveraging alternate sources of data—akin to the credit bureau

INFRASTRUCTURE DESIGN

DPI: Financial data sharing system
Account Aggregator, or AA

Prior to account aggregator, financial data was fragmented and walled/restricted to the specific financial institution, creating challenges for borrowers in consolidating their financial information, leading to delays, manual verification, and incomplete data in credit and financial decision-making.

It also tied borrowers to institutions they were associated with, leaving them with limited choice.

Account Aggregator (AA) is designed as a consent-based financial data-sharing framework that lets individuals and businesses securely share standardized financial records interoperably (bank statements, tax, insurance, pensions) with regulated entities, without transferring raw data.

It uses open APIs, strong cryptography, and user consent flows to enable seamless, real-time access to verified financial history for credit assessment, advisory, and underwriting. Unlocking financial data through AA has dramatically increased access.

THE INNOVATION:

- **First-of-its-kind consent-based data sharing to empower borrowers**, by breaking siloed and walled data access creates a level playing field
- It has contributed to an increase in the average ticket size of loans borrowed by thin-file customers **from ~₹84k to ₹92k in the first half of 2025**
- **It can monitor borrower transactions** in real time, reducing default potential

THE IMPACT:

18.9M loans worth **₹1.67 lakh crore** were disbursed in FY25 using AA. **At 11%, unsecured credit formed the biggest chunk of this**, accounting for ~3% of incremental lending.

For low-income borrowers, this means:

- More agency, and contextually relevant credit choices, with a 31% growth in value and 22% in volume between H1 FY25 and H2 FY25
- More easily and instantly accessible credit to those with minimal financial trails
- Minimised data friction and verification costs: AAs help lenders on-board thin-file customers, enable tailored pricing and customisability in loan terms

For financial service providers, this means:

- Significantly lowers the processing and underwriting costs for lenders to ₹90-100 per application from ~₹400, enabling lenders to feasibly offer small loans on a larger scale
- Pre-disbursement checks on funding sufficiency and existing obligations prevent over-indebtedness by confirming borrowers' repayment capacity and reducing future defaults

INFRASTRUCTURE DESIGN

DPI: Financial data sharing system

Invoice Hub

Invoice-related frauds—particularly double financing and fake or inflated invoices—have become a significant risk in Supply Chain Finance (SCF) and bill discounting programs.

In India, where invoice-led financing AUM stands at ₹3-4 lakh Cr, even a 1% fraud risk equates to ₹15,000 Cr of potential double funding.

The absence of a universal invoice repository and lack of interoperability across platforms (TReDS, GST Sahay, banks, NBFCs) make it nearly impossible to detect duplication across ecosystems, limiting lenders' ability to expand MSME-focused credit programs confidently.

IBDIC is solving this problem through its InvoiceHub: a universal repository of verified and funded invoices to mitigate the biggest risk in the supply chain ecosystem by bringing transparency and collaboration across invoice discounting platforms and players.

THE INNOVATION:

- **The first-ever network-led repository** that strengthens real-time solutioning, reduces fraud risk, and builds trust to enhance MSME financing at scale
- Enables lenders to deduplicate invoices in real time, detect double financing, and authenticate invoices using GSTN e-way bill and e-invoice data

THE IMPACT:

- **~2 lakh** invoice enquiries/month already processed
- **100** double-financing attempts already detected

For financial service providers, this means:

- Banks & NBFCs benefit from a network-led repository that enables real-time data connection and usage across financial institutions. This supports faster financial decision-making, reduces scams, and leverages eWay bills and digitisation for improved transparency.
- MSMEs gain access to better and faster financing, as the lack of deduplication leads to improved trust and fairer credit assessment.
- Regulators and ecosystem partners gain from co-existence with the GST ecosystem (eWay bill, GSTN, and e-invoice), creating a base hygiene check for MSME financing

INFRASTRUCTURE DESIGN

DPI: Non-financial data sharing system
Unified Lending Interface, or ULI

Many MSMEs and low-income borrowers lack comprehensive financial records, or the collateral to support their credit needs. Those *with* records typically need to support them with non-financial data, like land, tax, and milk production records.

Consequently, these credit assessment challenges lead to higher risk pricing for these borrowers—or outright loan denial.

The **ULI** seeks to cut manual processing and enable faster approvals by allowing lenders to seamlessly integrate with a single plug-and-play model that offers access to borrowers' financial *and* non-financial data.

It enables faster approvals by:

- Normalising data formats and workflows
- Reducing onboarding friction and manual processing

THE INNOVATION AND ITS IMPACT:

A first-of-its-kind democratised access to information like land records, tax records, company and transport information, especially to underwrite borrowers who do not have a robust financial data trail

A unification of many existing DPIs such as AA, Digilocker, PAN, and others with the ability to standardise non-traditional data parameters into actionable decision-making inputs

ULI originated in 2022 in a pilot project for digitising loans under ₹1.6L via the Kisan Credit Card (KCC) scheme—**where it enabled doorstep loan disbursement without paperwork.**

It enabled **doorstep disbursement** of loans without any paperwork, and **reduced turnaround time to 10 days** from 30-40 days

For low-income borrowers, this is:

- Specifically designed for their limited financial footprint, quick credit turnaround requirements
- A major benefit primarily for farmers, micro-borrowers, and nano/micro enterprises

For financial service providers, this means:

- Reduced complexity and time needed to integrate multiple other DPIs like ONDC, AA, DigiLocker, and potentially offline data sources within existing systems
- Democratised access to sophisticated credit assessment tools previously available only to larger banks

DPI: Networked Distribution

Open Network for Digital Commerce, or ONDC

Historically, financial products were distributed within closed ecosystems belonging to banks, NBFCs, or fintech apps—each with its own rules and data standards.

This was accompanied by high costs, leading to higher minimum transaction amounts, and inflexible access.

ONDC's goal is to create an interconnected, interoperable system where customers can connect with any provider via any app, using standardised protocols.

Through a unified network, ONDC (Finance) reduces barriers for low-income individuals and small borrowers, allowing them to access economically priced, tailored financial products without dependence on traditional, high-cost distribution channels.

THE INNOVATION:

- First of its kind democratised network that is designed for the customers, protecting them from increased costs
- ONDC works on an open protocol. Protocol is the standardised language everyone has to follow. Any app that adheres to its technical specifications can integrate with the network
- Through the protocol, ONDC is able to offer loans in under a few minutes

THE IMPACT:

In mere months:

5.5 lakh requests processed,

1,600+ loans valued over ₹25 Cr disbursed

Embedded finance is expected to create a **\$25B revenue opportunity by FY30**, with ONDC alone aiming to reach 1.2M sellers and 900M consumers

It has introduced a fee of ₹1.5 fee for successful transactions of ₹250 or more, with lenders and financial institutions responsible for paying the fees

For low-income borrowers, this means:

- Wider access to credit unrestricted to a single provider or fintech's offerings, reducing network fees and making loans more affordable
- A more transparent lending ecosystem, empowering borrowers to make more informed decisions

For financial service providers, this means:

- Reduced distribution costs and time-to-market for financial products
- Easier development of innovative, affordable financial offerings for micro and small borrowers
- Seamless upselling from loans to other relevant financial products

INFRASTRUCTURE DESIGN

Credit Risk Infrastructure: Standardised Frameworks

Grameen Credit Score, or GCS

As of today not many SHGs are directly linked with the formal credit systems.

This has hence made financial inclusion difficult. There are nearly 100M creditworthy members of SHGs, who are underserved by lending institutions because they are invisible or cannot be rightly assessed for credit worthiness.

The Grameen Credit Score aims to be a pioneering, simplified and formalised credit scoring model designed specifically for SHG members and rural borrowers who often lack formal credit histories.

It uses non-traditional data like savings and micro-loan repayments to improve access to formal credit, as traditional credit scores don't adequately reflect the financial behavior of rural borrowers, especially women entrepreneurs.

Public sector banks and CIBIL are developing this score to support inclusive lending and access to financial products and government schemes like Mudra and Kisan Credit Cards.

THE INNOVATION AND ITS IMPACT:

- Provides a practical, localized alternative to traditional credit scoring, increasing lending to low-income communities, especially women entrepreneurs
- Supports microfinance institutions in expanding their portfolios sustainably, with a digitised framework that can bridge the gap in existing credit scoring systems
- Greater transparency in SHG transactions and repayment histories and pave the way for their integration into the formal financial ecosystem

For low-income borrowers, this means:

- Improved, reliable access to various rural lending schemes like Kisan Credit Cards, Mudra loans, and tractor loans
- A more transparent, real-time system for women and rural borrowers to monitor their credit score
- The potential for micro and small businesses to build positive credit history, supporting future credit needs

For financial service providers, this means:

- A cost-effective, equitable tool to expand credit outreach with reduced underwriting time
- Mitigated credit risk via a standardised, government-backed framework
- More room for innovation in credit assessment

INFRASTRUCTURE DESIGN

Credit Risk Infrastructure: Standardised Frameworks

Kaleidofin: Ki Score

Traditional credit scoring models rely heavily on narrow datasets, like:

- Prior loan repayment history
- Credit card usage length of credit history
- Outstanding debts

This creates a major blind spot for underbanked and underserved customers.

Kaleidofin is building credit risk infrastructure that will create credit identities for low-income and nano/micro-business borrowers who have so far been constrained by the traditional credit scoring frameworks.

The Ki Score, built using 200+ data points, assigns each borrower a risk score from 1 to 100, categorizing them as low, medium, or high risk—based on credit history and repayment patterns, digital transaction data and spending behaviors, business seasonality, geolocation insights and broader socio-economic factors.

In addition they have built Ki View—a dynamic dashboard to track and monitor loans and Ki Credit to lend capital.

For low-income borrowers, this means:

- Critical help for the 20-30% of the new-to-credit borrowers eligible for formal credit at financial institutions
- Less fragmented credit from a single source, rather than multiple smaller providers

For financial service providers, this means:

- Optimised loan allocation with risk thresholds adjustable by each financial institution
- Ki View empowering them to take preemptive action such as loan restructures, increased monitoring, or adjusting policies for challenging regions

THE INNOVATION AND ITS IMPACT:

First-of-its-kind credit risk infrastructure that aggregates from individual to geo specific insights at an aggregate level

Designed to be a continuous monitoring system and not a one-time assessment, to dynamically adapt to borrowers' profiles

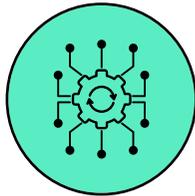
Ability to create cohort based profiles for customised loan design (eg: women, dairy, retail etc)

50+ banks and NBFCs have adopted this

2M+ scores generated

+20% in profits seen by nano entrepreneurs assessed by Ki Score

0% NPAs reported by Kaleidofin as of 2024, reflecting effective risk management and low default rates



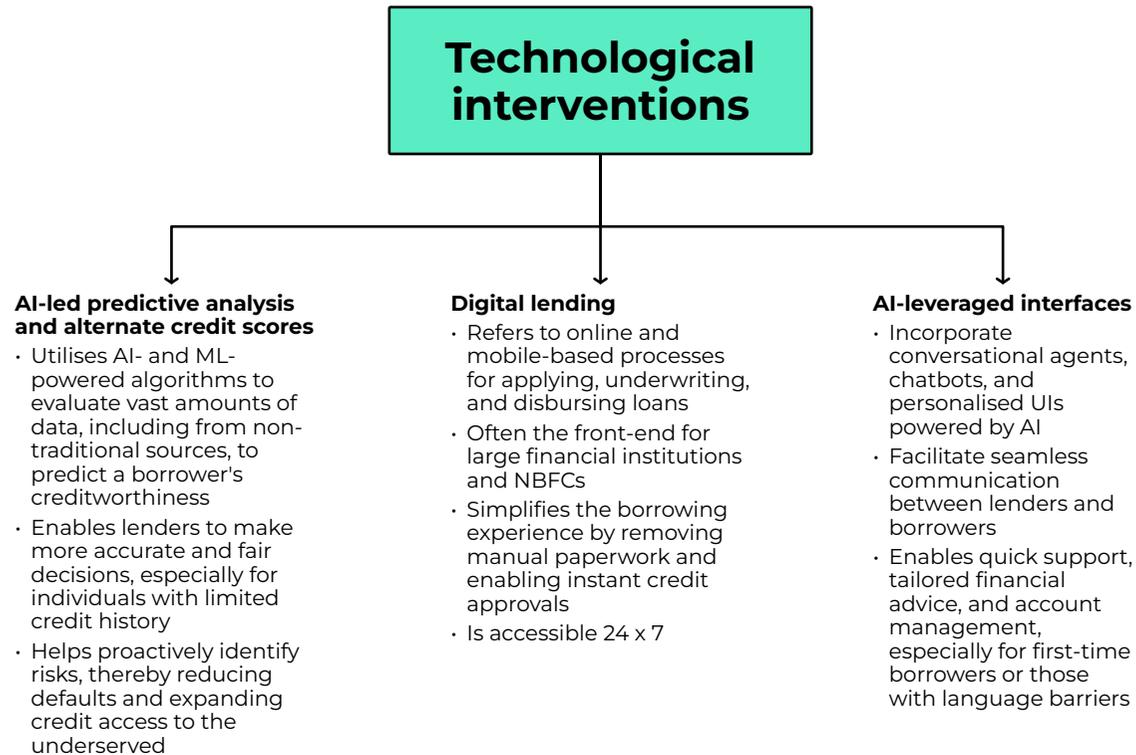
Technology design

- Transforms the lending landscape by enhancing access, efficiency, and decision-making
- Leverages advanced digital tools and AI to more accurately and inclusively assess credit-worthiness
- Enables, automates, and generally streamlines access to financial services for previously underserved populations
- **Overall, fosters greater financial inclusion and faster credit delivery**

A glimpse into the future

- **Credit as a feature, not a product:**
Digital lending will become near-invisible, deeply embedded within non-financial platforms. Credit will be a natural extension of transactions, diminishing the concept of a separate loan application for routine needs. Average small-ticket loan disbursement time could shrink by 90%, from days or hours to minutes, or even seconds.
- **AI as personal financial orchestrators:**
Leveraging alternative data from various sources, AI can not only determine creditworthiness, but also suggest ways to improve financial health, build a credit profile.
- **Augmented financial literacy:** AI-driven interfaces will not just offer credit, but also act as continuous learning tools, gamifying financial literacy and empowering users to make better financial decisions independently.

These innovations can broadly be split into three groups.



TECHNOLOGY DESIGN

AI-led predictive analysis: Alternate credit scores

Kosh: Social network-based credit scoring for joint liability loans to blue-collar workers

The blue-collar workforce in India—encompassing agricultural laborers—totals nearly 300M people.

Half are employed in construction and manufacturing sectors, receiving monthly salaries from factories or construction sites.

Their frequent relocation makes it difficult and expensive for Microfinance Institutions (MFIs) profitably provide them services in urban environments.

Kosh's digital lending model harnesses social capital to facilitate credit access for such workers by leveraging trusted community members as guarantors.

It creates a joint liability structure where borrowers collectively support each other's repayment. This approach lowers customer acquisition costs and encourages timely repayments, as social pressure motivates group discipline.

Through insightful data from phones across the group, Kosh is able to create a highly predictable and accurate social network that can detect frauds and potential defaults.

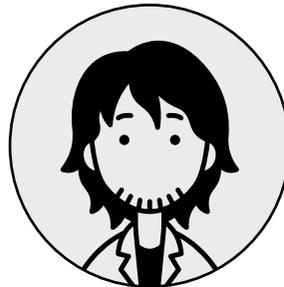
THE INNOVATION AND ITS IMPACT:

~40% approval rates by reimagining the Joint Liability Group (JLG) model, compared to other lenders' 15-20% and comparatively lower NPAs

Kosh's proprietary algorithm also intelligently parses phone and device type data to detect fraudulent or mule accounts.

What this means for the credit ecosystem

- Kosh is redefining the microfinance landscape for blue-collar workers, especially in urban India where MFI penetration is lower
- It follows an on-lending model, where it operates as the intermediary between NBFCs and borrowers, in essence allowing NBFCs to unlock new customer segments with a deeply reliable underwriting model customised to blue-collar workers



Case in point, **Suresh**: A factory worker who earns his monthly income partly in cash, partly to his account. His brother and cousin from his village have also joined him as coworkers.

Before Kosh:

- No credit history, nor access to a formal pay slip, making him ineligible for loans
- Consequently, unable to buy a vehicle to earn additional income as a night-time Swiggy rider

After Kosh:

- He becomes eligible for a joint liability loan together with his brother and cousin via Kosh
- The JLG model is familiar to him, via his mother borrowing through her SHG

TECHNOLOGY DESIGN

AI-led predictive analysis: Alternate credit scores
Anniyam: SHG-based credit scoring (Grameen Credit Score) and digitising SHGs to unlock bank linkage

Self Help Groups, or SHGs, are a transformational platform for women in rural India, bringing them closer to income-generating activities and formal financial services.

Their potential is, however, limited by archaic offline systems and processes, hindered further by the lack of digital literacy among members.

Anniyam's MoneyPurse is a product designed to help SHGs and JLGs digitise their operations and transactions while building flexibility for unique contexts.

Its ability to track real-time transactions not only saves time and effort for SHG members, but also helps them build a digital footprint of their financial and non-financial activities.

This reliable, data-driven model makes it far easier to then assess their creditworthiness.

THE INNOVATION AND ITS IMPACT:

This is a **robust data engine with flexible architecture** to meet on-ground SHG structures of varied maturity and ecosystems

Implemented a **last-mile doorstep banking system** that offers affordable and sustainable financial services

What this means for the credit ecosystem

- Reduces banks' acquisition, approval, and disbursement costs—a \$4B opportunity per NABARD
- Provides additional revenue sources for SHG members via more savings deposits



*Case in point, **Raksi**: A SHG book-keeper who struggles to keep up with her administrative work while managing household duties*

Before Anniyam:

- Pressed for time and faced potential wage loss, due to needing to travel to the bank
- Spends many hours manually accounting for her members transactions, since they pay her per their convenience

After Anniyam:

- Administrative tasks take under a quarter of the time to complete
- Real-time updated records allow members to access more financial services through the business correspondent
- Improved confidence in digital finance among members and office bearers

TECHNOLOGY DESIGN

AI-led predictive analysis: Early warning signals

cGreen: Psychometric-led assessments to address defaults via early and timely resolutions

India's banking sector has seen a significant reduction in large NPAs, lately. However, loan defaults are increasing among new-to-credit and underserved borrowers.

The Microfinance Portfolio at Risk (PAR) 30+ days past due surged from 2.1% to 6.2% in 2025, with higher delinquency rates in rural/Tier-3 regions, due to aggressive lending, a high influx of first-time borrowers, and poor financial literacy.

cGreen is a digital debt resolution product designed to mitigate the need for costly, face-to-face recovery that stems from limited visibility into borrower behavior, inability to track loan utilisation and low digital literacy. It captures psychometric insights to distinguish repayment intent from capability.

It does so by assisting local agents with a scalable, AI-led voice bot that helps uncover the real reasons behind distress and creates pathways for repayment via early-warning signals and debt-resolution structures.

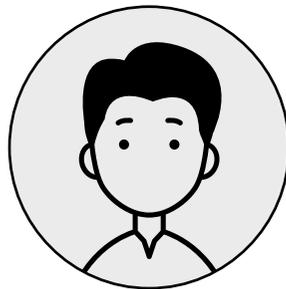
THE INNOVATION AND ITS IMPACT:

cGreen has been able to improve NPA resolutions to ~1.2-1.3% from the industry standard of ~0.8-0.9%.

Its CAN score system takes in psychometrics like conscientiousness, neuroticism, and socioeconomic behavioural patterns to evaluate for borrowers most likely to repay.

This assessment is designed for **empathetic resolution** instead of forceful recovery through personalised debt management, based on AI/ML powered solutions that predict repayment probabilities and reduce defaults

Ability to unpack true intent and reasons for potential defaults by offering providers a 360° degree view of the borrower by centralising and cleaning credit bureau, lender, and field data



Case in point, **Raghu**: A farmer with two children he needs to care for and educate. He needs money for items like seeds and fertiliser.

Before cGreen:

- Stuck in a debt trap, often waiting on long vendor credit cycles to pay off rising debt
- Sometimes unable to manage capital, redirecting loan money toward more urgent personal needs

After cGreen:

- Raghu is freed from the potential indignities and harassment from loan officers
- He has access to financial literacy courses, and AI-personalised support and nudges to help manage his repayments

Digital lending: Digitising offline collateral

Advarisk: Digitising and standardising property records to reduce verification costs

Verification of land records, especially in smaller towns and rural India is cumbersome, time consuming and expensive for banks.

Additionally, it's quite susceptible to fraud: per the RBI, banks reported 18,461 fraud cases worth ₹21,367 Cr in just the first half of FY25. While not all of them are related to property, it constitutes a significant portion.

Advarisk developed the Instant Ownership Check (IOC), India's first AI-driven tool that allows financial institutions to perform real-time verification of property ownership and valuation.

This platform offers instant access to accurate property ownership records, the latest transaction history, and comparable property valuations—all through a single API with coverage across the country.

THE INNOVATION AND ITS IMPACT:

~95% reduction in turnaround time from onboarding to verification

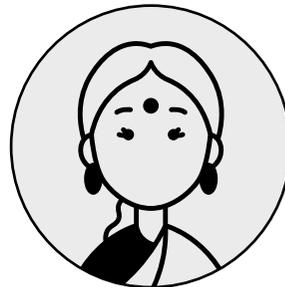
~90% reduction in cost of collateral verification

~75% recovery of NPAs by AdvaNPS via a 360° view of borrower assets

550M+ records digitised into a property database; 45M properties managed for 50+ financial institutions

What this means for the credit ecosystem

- Standardised cross-country land and real estate records
- AI tools help interpret the complexities of property ownership
- AdvaNPA's forensic analysis improves default recovery



*Case in point, **Rakhi**: A home-based entrepreneur in Indore, running a home-catering business that suddenly picked up momentum, and is set to scale into an establishment that now requires working capital to grow.*

Before Advarisk:

- A largely cash-run business without a GSTIN
- No papers to verify the small parcel of land she owns in her village

After Advarisk:

- Her land can now be used as collateral, owing to her family's property taxes records that Advarisk fetches—qualifying her for cheaper loans

TECHNOLOGY DESIGN

Digital lending: Digitising offline collateral

Sampatti Card: Formalising informal labour through digitally verifiable payslips

There are an estimated ~5M household labourers—and millions more who earn in cash monthly or weekly—without a formal digital trail.

Nearly 90% of these labourers happen to be women, invisible to the formal credit system.

Sampatti Card is designed for such labourers, who cannot furnish verified and formalised pay slips to qualify for a loan.

It allows employers to pay via a QR code, creating a digital trail that enables the card holder to gain access to credit solutions such as earned-wage access from Sampatti Card.

THE INNOVATION AND ITS IMPACT:

First-of-its-kind formalisation of wages in the cash economy, by creating a digital footprint of earned wages

Personalised financial services, including financial advice based on AI/ML tools that assess their financial transactions

What this means for the credit ecosystem

A well-understood collateral now backed by a verifiable digital footprint, allowing banks and NBFCs to lend to a previously underserved segment, with lower risk and more accurate information



Case in point, **Rekha**: A cook across three houses in Bangalore, earning ₹25,000/month. Her lack of collateral has prevented access to loans through banks and NBFCs

Before Sampatti Card:

- Predominantly transacts in cash, and more recently, via UPI
- Has heard of lending apps, but is fearful of the fees and hidden costs, preferring to borrow from a trusted entity like a bank—which has denied her loans

After Sampatti Card:

- She can submit her pay slips to any bank to be considered for a loan, priced based on her true earning and repayment potential
- She can access early advances through earned wage access from Sampatti's banking partners

Digital lending: Portfolio Management

MAKSPay: Digital management of high-risk portfolios

Managing a large portfolio of small loans to high-risk borrowers requires robust infrastructure for loan origination, monitoring, and collections, which leads to higher operational costs for banks.

Regulations related to provisioning for potential loan losses and capital adequacy can be more stringent for high-risk loan portfolios, impacting profitability.

MAKSPay digitises loan journeys end-to-end, from onboarding to auditing and verification. As a B2B2C solution, its USP is to balance demand and supply, ensuring commercial viability for lenders through its digital platform while keeping the flexibility for borrower.

MAKSPay also goes one step further and manages outsourced portfolios for lenders, especially for government schemes and high risk portfolios.

THE INNOVATION AND ITS IMPACT:

Modular and customisable rule engines to set unique thresholds for qualification and underwriting

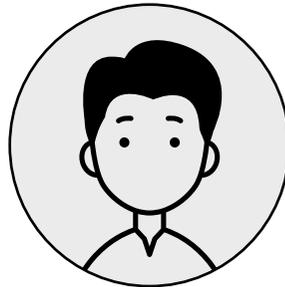
Customisable digital collections based on real-time transaction data

A fully managed, commercially viable **outsourced portfolio**

Digital doorstep banking in urban India for low-income borrowers, especially those eligible for government schemes

What this means for the credit ecosystem

- Reduced CAC for a hard-to-reach segment
- Ability to build a sustainable PSL portfolio and manage them within constraints and guardrails
- Reduced time-to-digitisation, while outsourcing it to teams with technical capabilities



Case in point, **Suresh**: Runs a car repair workshop in Bangalore and is eligible for a MUDRA loan to grow his business and ease working capital challenges

Before MAKSPay:

- He does not have the time to visit a bank, and has previously felt overwhelmed by the questions and requirements
- He's worried about hidden charges in the MUDRA loan

After MAKSPay:

- A MAKSPay team visits Raghu and offers to advise and onboard him to a bank of his choice, based on his needs
- He is onboarded, his account is opened and his MUDRA loan application is completed in minutes
- His repayments are linked directly to his earnings, giving him flexibility to pay as he earns

TECHNOLOGY DESIGN

AI-led interfaces

Sub-K: Digitally personify moments of in-person engagement in the MFII journey

Microfinance Institutions (MFIs) in India are digitising to boost operational efficiency, reach, and risk management.

This also helps reduce operational expenses, particularly in rural areas, by leveraging mobile technology and agent networks over physical branches allowing them to evolve from a costly "High-Touch Model" to a more efficient "Tech-Touch Model" while maintaining client engagement.

Sub-K is an MFI and agent network manager for last-mile portfolio management for eight banks in India.

It is reimagining the MFI loan journey via an AI-led interface that supports loan origination and verification officers, a digital-native app designed for flexible repayments, and digitising loan-collection meetings.

THE INNOVATION AND ITS IMPACT:

~95% of collections are now received through the Sub-K Pay app while being able to track individual member payments. It also features:

AI-led verification to mitigate loan officer subjectivity

AI assistant-led interface that is able to provide more objective borrower insights during verification, enabling the verification of multiple customers in a shorter time frame

What this means for the credit ecosystem

- A more robust digital footprint of members and their repayment, potentially graduating them from group loans to individual loans
- AI-led assistants along with in-person support helps banks and NBFCs transition away from entirely manual processes



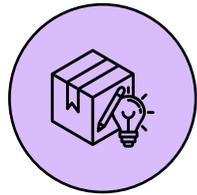
Case in point, **Rekha**: Running a tailoring unit at home, she has a strong financial relationship with her SHG and MFI

Before Sub-K:

- She doesn't have the time to attend multiple SHG meetings
- She's keen to borrow an individual loan against her steady cash flow, but has not found a way to do so

After Sub-K:

- For the first time, Rekha applied for an individual loan through Sub-K's banking partners via a remote verification process
- The Sub-K Pay app allows her to pay as she earns, reducing her need to attend collection meetings



Product design

- These innovations involve a fundamental reimagining of the structure and delivery of credit products, to better suit the unique needs of underserved communities.
- Tailoring products to specific contexts, assets, or market segments makes credit more accessible, flexible, and relevant.
- **In doing so, lenders can improve adoption, repayment rates, and overall financial inclusion outcomes.**

A glimpse into the future

- **Proactive, self-optimising products:** Credit products will start adjusting dynamically to a borrower's evolving financial health and life events—such as a loan product offering a payment holiday during an unexpected health crisis.
- **Reputation-as-collateral and fractional digital assets:** Beyond physical assets, credit products will increasingly expand their definitions of collateral, leveraging an individual's digital footprint, verified performance history, and even future earning potential.
- **Ecosystem-native finance:** Building on embedded finance credit will become an inherent function within digital ecosystems—for instance, Buy Now Pay Later could transform into Produce Now, Get Capital, or Learn Now, Pay When Employed. Credit products will serve the entire value chain, integrating with procurement, logistics, and sales.

These innovations can broadly be split into four groups.

Product design

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graph TD; A[Product design] --- B[ ]; B --> C[Embedded finance like BNPL and closed loop loans]; B --> D[Contextual asset-backed lending]; B --> E[Customised product terms]; B --> F[Verticalised loan products];
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Embedded finance like BNPL and closed loop loans

This integrates credit options directly into the purchase or service experience, such as via Buy Now Pay Later schemes, allowing borrowers to seamlessly access credit at the point of sale, typically for small-ticket, consumer-focused transactions.

Contextual asset-backed lending

- Leverages relevant assets like gold or cattle as collateral, providing borrowers with more familiar and accessible security for loans
- Aligns lending with the most valuable, tangible assets for specific communities or sectors, improving flexibility and access.

Customised product terms

- These offer flexible repayment options, or gradual credit building via structures like the loan ladder.
- These adaptive terms reduce default risk, and encourage ongoing borrowing relationships, particularly for low- and seasonal-income earners.

Verticalised loan products

- Sector-specific loan products such as for agriculture, dairy, solar, or retail address their respective unique financial needs.
- They incorporate industry-specific features and risk assessments, enhancing relevance and effectiveness for borrowers in these areas.

PRODUCT DESIGN

Embedded finance: Closed loop

Light Microfinance: IoT-based financing to monitor and track productive asset usage

<p>Misdirection of credit funds—where borrowers use loans for undeclared purposes—is a major challenge in open-loop credit systems, particularly for New-to-Credit and underserved segments.</p> <p>This stems from information asymmetry and lack of financial literacy, where lenders struggle to track the use of funds and borrowers inadvertently use funds for immediate consumption, increasing default risk.</p>	<p>Light Microfinance is a traditional MFI, now evolving to meet the needs of those who have graduated from group loans to individual loan products—nearly 25% of its portfolio</p> <p>To manage misdirection risk, Light has designed a closed-loop loan product for productive assets like EV batteries, that can be tracked and monitored using IoT devices</p>
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THE INNOVATION AND ITS IMPACT:

Leveraging IoT tech to track vehicle usage, performance, and battery of the vehicle

Accelerating EV adoption in India via a mutually beneficial partnership: P2G Mobility Tech handles battery sales and service, with Light MFI providing the financing

Accelerating EV adoption in India to drive green mobility through affordable, in-context financing, especially for gig workers and auto drivers

What this means for the credit ecosystem

The demand for EV financing is set to grow to ₹3.7 lakh crore by 2030. With its closed-loop loans, Light is aptly positioned to unlock new market opportunities in this area. This is an opportunity for NBFCs to adopt the model at scale, revolutionising green mobility in India

	<p><i>Case in point, Suresh: A ride-hailing driver in Mumbai, who wants to buy a better vehicle to make more money, but is rejected owing to a lack of stable income</i></p> <p>Before Light:</p> <ul style="list-style-type: none">• Monthly income fluctuates between ₹8,000-15,000, without any accompanying proof, forcing him to lease his current vehicle• Cannot afford the downpayment for an EV bike <p>After Light x P2G Mobility:</p> <ul style="list-style-type: none">• Able to buy an EV bike through P2G and Light's partnership, as he has borrowed from Light MFI before• He now saves ₹5,000-6,000 monthly on fuel• Light is able to secure and recover the asset in case of potential defaults via IoT monitoring
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PRODUCT DESIGN

Embedded finance: BNPL solution

Rupifi: Building the most comprehensive B2B checkout experience

Nano- and micro-businesses form the backbone of India's economy. They're also the most strapped for cash, especially because of mismatched cash flows. Rupifi is a BNPL solution for such businesses who can tide over the gap between vendor payments and customer sales.

Rupifi is a B2B fintech platform that provides embedded credit and payments solutions where SME transactions take place.

By integrating directly into digital marketplaces, it enables merchants to access real-time working capital credit and flexible payment options at the point of transaction.

Its innovation lies in creating a closed-loop digital ecosystem where credit is deployed and utilised within verified supply chains, ensuring that funds are used for productive purposes.

THE INNOVATION AND ITS IMPACT:

Embedded with B2B marketplaces, **Rupifi assesses indicators like frequency of purchase, seasonality, and volume to assess the intent and ability to repay, real-time**

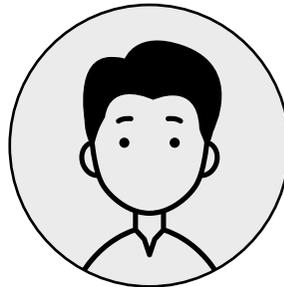
It improves income-earning potential for SMEs by building the most comprehensive and intuitive B2B checkout experience

It has the highest approval rates, with average SME spend growing by 3x in a year and 5x in two years

What this means for the credit ecosystem

80%+ MSMEs struggle to obtain standard bank credit. TReDS platforms, which provide supply chain financing for MSMEs, saw invoice values surge 766% in FY20-24, indicating massive unmet needs.

This enables financial institutions to access a pre-qualified, platform-verified MSME borrower base.



Case in point, **Raghu**: A kirana store owner who buys primarily from wholesalers, because of the associated discounts and lines of credit

Before Rupifi:

- Time lost travelling to the wholesale market weekly
- Doesn't know where to start B2B market exploration

After Rupifi:

- Buys stock directly from online marketplaces after scouting for the best prices, availing Rupifi's instant credit from them
- Affords him more time to keep his store open, boosting sales
- Is supported to make timely, direct payments via WhatsApp and IVR reminders

PRODUCT DESIGN

Contextual asset-backed loans: Gold

Dvara SmartGold: Leveraging the most available and understood asset in rural India

The Indian gold loan market is a dual market - still predominantly led by the informal sector, where interest rates are high and controlled by local pawn brokers.

There is however a growing formal segment, that more and more women/rural customers are curious and aware of - led by NBFCs and digital lenders.

Dvara SmartGold, part of the Dvara KGFS network, is reimagining small-ticket gold-backed lending for low-income and rural households by embedding it within broader livelihood and financial service ecosystems.

Unlike traditional gold loans that are purely transactional, Dvara's approach connects collateralised credit to household cash flows, ensuring that gold—often a family's only liquid asset—is used productively rather than for short-term consumption smoothing.

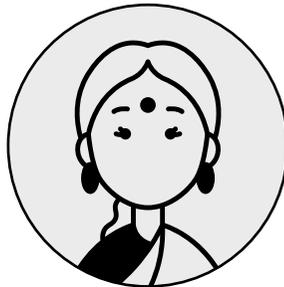
THE INNOVATION AND ITS IMPACT:

Phygital approach: Dvara offers loans against digital gold as well as physical gold owned/saved by the borrower

Savings linked loan plans: Dvara also offers micro-savings plans as small as of ₹250–500, enabling both savings and credit against that, improving liquidity without eroding long-term assets.

What this means for the credit ecosystem

A pathway for low-income borrowers to build a robust and formal credit score, leveraging collateral-backed lending. An estimated 65% of gold is held in rural household, and borrowers have been using gold loans for a wide range of purposes.



Case in point, **Rina:** A tailor who serves neighbourhood clients from her home in Jaipur, earning ~₹20,000 a month. Her savings are mostly in the form of gold ornaments.

Before Dvara SmarGold:

- Lacking income proof or credit history, formal loans remain inaccessible—forcing her to pawn her jewellery for high interest rates, or borrow informally
- Travelling to city branches for loan processing is inconvenient

After Dvara SmarGold:

- Rina can request gold loans at her doorstep via the SmartGold app. Her gold is evaluated at home, and funds are disbursed instantly
- She can also save in small digital gold instalments and borrow against it when needed
- With transparent terms, secure storage, and flexible repayments, Rina can access affordable credit without fear of hidden costs or asset loss.

PRODUCT DESIGN

Contextual asset-backed loans: Tokenised invoices

Xaults: Fractionalising and tokenising anchor-led invoicer for deep-tier financing

The dichotomy of SME financing is that the smallest tier supplier, who contributes the fundamental raw material, has the least amount of power and access, often leaving them cash strapped and pressed for working capital or at the mercy of expensive loans to meet their cash flow requirements.

Xaults has built a first of its kind deep-tier supply-chain financing platform that leverages the concept of tokenisation, using distributed ledgers and smart contracts to link invoices across anchors and suppliers.

This stack lets banks push credit further down the supply chain—beyond Tier-1 buyers—by tying loan flows and collections to verifiable invoice events rather than solely based on borrower credit histories.

THE INNOVATION AND ITS IMPACT:

- **Leveraging programmable money to unlock access to credit** is a new, more economical way to increase access to credit—especially among small businesses at the lowest rung of a supply chain
- **Xaults offers embedded credit within the flow of commerce**, incentivising both anchors and lenders while maintaining high traceability and credit discipline.
- Cost of capital goes up **by just 1-2% per layer**.

What this means for the credit ecosystem

Better network risk coverage and assessment, as the risk is tied to the anchor by linking all downstream invoices to the anchor invoice

By embedding lending into transaction flows, financial institutions can scale credit access without proportionate increases in risk or cost



Case in point, **Raghu and Rekha:** They run a handloom company that makes fabric that manufacturers eventually sell to luxury brands. The company supports local community weavers.

Before Xaults:

- Constantly in need of working capital to tide over long credit cycles from large buyers
- Working capital for small businesses are extremely prohibitive, despite having financial records

After Xaults:

- Luxury buyers can now tokenise their invoices and offer it to manufacturers, who can then share a portion of it with suppliers—resulting in more affordable, collateral-backed loans being made available to Raghu and Rekha

PRODUCT DESIGN

Verticalised loans: Dairy

Stellapps: IoT-based dairy financing and credit scoring

Stellapps is a first-of-its-kind deeptech supply chain digitisation solution. It aims to digitise the entire dairy ecosystem by leveraging the IoT.

Despite being considered the largest "crop" on earth, milk has benefited the least from digitisation.

Through a holistic approach, Stellapps digitises and optimises production, procurement and coldchain management through SmartMoo.

It has also launched mooPay—its fintech arm— to leverage the extensive data it has collected, to increase access to appropriate and convenient finance for the dairy ecosystem.

mooScore, a credit scoring system designed specifically for dairy farmers, leverages data such as milk pouring patterns, milk quality, farmer consistency, and dairy engagement. Combined with demographic and bureau data, it is able to lend smartly and quickly, in structures and terms that align with the needs of the dairy farmer

THE INNOVATION AND ITS IMPACT:

740,000 farmers were analysed to build mooScore v2.0.

It sits at a 40% auto-approval rate with lower processing costs.

60% NTC farmers are approved with default rates below 2.6%.

Using advanced ML techniques, it includes four customisable models: **MooScore, Hybrid Retail Score, Hybrid MFI Score, and mScore.**

What this means for the credit ecosystem

mooScore enables lenders to make more quicker, and fairer credit decisions, helping protect farmers' incomes and their own loan portfolios by bundling climate insurance for quick recovery, using climate and dairy data for risk assessment, and incentivising climate-smart practices with better loan terms



Case in point, **Raghu and his wife:** Running a small dairy farm in their village, they often need capital to purchase cattle, but are denied loans due to lack of documents and land ownership beyond their home

Before Stellapps:

- Always constrained for capital to grow their herd
- Being a cash-based operation, business documents or collaterals are absent, rendering them ineligible for formal loans or government schemes

After Stellapps:

- Access to instant working capital from Stellapps partners, based on their Mooscore
- Better market linkages and pricing information via mooSmart data

PRODUCT DESIGN

Verticalised loans: Dairy

Credin: Bundling insurance and credit for Indian dairy farmers

There are close to 8 Cr dairy farmers in India. Only about 1.5 Cr are attached to cooperatives, and therefore able to reap benefits - including access to finance.

Most other dairy farmers do not qualify for loans because of the perceived risk in dairy farming and cattle herding, making them one of the least penetrated sub-segments in the agricultural sector.

Credin has designed a verticalised loan product for this sector, with a specific focus on cattle being sold in the open market, which accounts for 94% of cattle bought.

By leveraging geotagged data, insurance partnerships, and digital user journeys, Credin is able to disburse cattle loans in short turn around times, keep NPA's low while maintaining affordability. Its domain-led underwriting uses alternate data like milk collection records to assess risk more accurately.

THE INNOVATION AND ITS IMPACT:

A lean, digital-first model that delivers MFI-level outreach with better efficiency and traceability

Strategic partnerships with insurance providers and geotagging tech make this **a closed-loop loan product, reducing NPAs from 1.8% to 0.6%**, improving portfolio quality.

Credin has the potential to capture nearly a ₹4 lakh Cr market.

What this means for the credit ecosystem

In 2024, RBI increased interest on unsecured loans and ruled out segment-specific PSL. This made lending to the dairy sector—the only ecosystem with visible cash flow, and a short cycle to recover money—low-hanging fruit for banks.

Credin reduced the perception of risk via insightful data and proven recoveries, building confidence among lenders in this sector.



*Case in point, **Raghu and his wife:** They run a small dairy farm in their village. Lacking documents, they are denied loans to buy more cows.*

Before Credin:

- They need four cows to be able to sustain a living, but have just two.
- Operating mostly in cash leaves them without formal business documents and collateral needed for formal loans or gov't schemes

After Credin:

- Access to a cattle loan from Credin, where credit is provided the day they go to the market
- Funding received through verified channels connected to suppliers, ensuring money is spent for business growth
- Raghu is now able to build credible financial profile while being protected against emergencies

PRODUCT DESIGN

Verticalised loans: Retail

Udaan: B2B marketplace with supply chain financing

The B2B trade ecosystem in India has historically been unorganised, fragmented, and heavily manual. Millions of small- and medium-sized businesses like kirana stores, wholesalers, and neighbourhood pharmacies relying on inefficient supply chains, inconsistent product availability, and outdated payment methods.

They spend hours everyday managing procurement through unreliable middlemen, with little transparency or financial support.

Udaan designed an embedded credit solution to address the huge working capital gap for micro- and nano-businesses, by allowing merchants to order inventory on credit, repay flexibly, and grow their businesses without the burden of external borrowing, enhancing merchant retention and ecosystem growth.

THE INNOVATION AND ITS IMPACT:

UdaanCapital has enabled ₹2,200 Cr credit to retailers.

Leveraging technology to bring efficiency across the retail supply chain, it's seen:

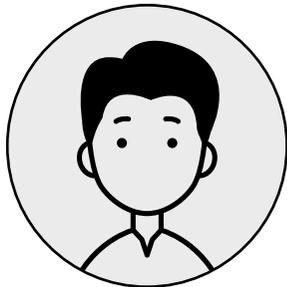
60% growth in daily buyers

3.5% in costs, down from 10%

It's end-to-end integrated, from its ability to set prices transparently across sellers to making instant purchases and receiving orders through express delivery.

What this means for the credit ecosystem

By bringing millions of small businesses onto a digital platform and providing them with formal credit and digital payment + accounting solutions, Udaan helps formalise a traditionally unorganised sector.



Case in point, **Ravi**: A small retailer who runs a wholesale electronics shop in a busy market. He depends heavily on local distributors to stock his store with mobile phones, accessories, and gadgets

Before Udaan:

- Ravi faces frequent delays and unpredictable pricing when buying from wholesalers
- Struggles with limited access to working capital, making it hard to expand inventory or take advantage of bulk purchasing discounts

After Udaan:

- Ravi now orders products directly through a digital platform, enjoying real-time pricing transparency and instant stock availability
- Access to flexible credit options helps him purchase larger inventories and grow his store without upfront capital constraints

PRODUCT DESIGN

Verticalised loans: Agri

StarAgri: Reducing post-harvest losses and increasing access to finance via warehouse receipts

Subsistence farmers face major challenges due to limited access to finance and modern rural warehousing, leading to significant spoilage and post-harvest losses—**estimated between 3-13% in 2022, at around ₹1.5 lakh Cr**

StarAgri has built a holistic end-to-end solution to help farmers overcome this, by introducing innovative warehousing solutions that enhance traceability and allow farmers to use commodities as verifiable collateral, facilitating loans from NBFCs through rigorous inspections and automated monitoring.

THE INNOVATION AND ITS IMPACT:

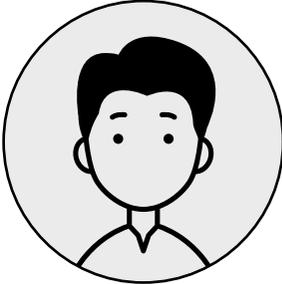
StarAgri has partnered with banks like ICICI, Axis, and PNB to enable warehouse receipt financing—where stored commodities serve as loan collateral.

Farmers can list their produce on the Agribazaar app, which aggregates demand and offers the best prices. The **Agripay** wallet then ensures secure, immediate payments.

AgriBhumi leverages AI and ML to analyze satellite imagery for precise crop monitoring and farm management, providing a tech-based credit assessment tool

What this means for the credit ecosystem

Farmers need small-ticket loans which traditional banks are not suited to offer. Partnering with 30+ financial institutions, StarAgri launched its NBFC subsidiary to offer tailored financial solutions for smallholder farmers and warehouse receipts as collateral for loans to farmers, furthering PSL lending.



*Case in point, **Raghu**: A smallholder cotton and maize farmer. Reliant on traditional methods and local markets to sell produce, he faces challenges in accessing fair prices and reliable funds.*

Before Star Agri:

- Struggles with post-harvest losses due to inadequate warehousing and delayed sales
- Difficulties securing affordable credit, as lenders often lack information on his land quality and crop-yield

After Star Agri:

- Raghu can now store his produce securely, access verified collateral for loans, and sell at transparent, competitive prices
- He now gets better credit options, invest in quality inputs, and reduce losses

PRODUCT DESIGN

Contextualised terms: Flexible credit repayments

Karma Life: Earned wage access for gig workers

On average, gig workers in India earn ~₹500 a day. Some earn more, while many earn less than this, making it difficult for them to manage day-to-day expenses, especially fuel and maintenance.

This is exacerbated by gig platforms paying out only once per week or quarter, leaving them strapped for cash on a daily basis.

Karma Life addresses this by offering earned wage access, and emergency loans to tide over loss of income.

It has proprietary credit scoring and a flexible repayment product based on income and earning frequency. Its embedded model enables employees to borrow money instantly and repay with high predictability, as it is deducted directly from earnings.

THE INNOVATION AND ITS IMPACT:

First-of-its-kind deduction-at-source system that automates repayment, enabling flexibility in amount and frequency of instalments.

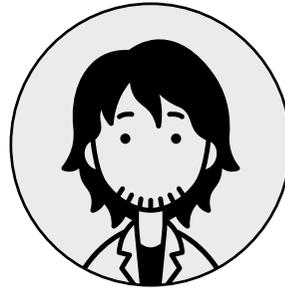
Loans have a flat, usage-based fee structure, with a minimum repayment period of 3 months.

Among users, **~50% say they have seen an improvement in their quality of life, and 20% claim that they have reduced dependency on loans**

What this means for the credit ecosystem

Karma Life offers a specialised product for NBFCs to unlock value in a growing asset class:

Gig workers, who are likely to reach ~20M in the next 5 years, requiring sizeable amounts of working capital to meet their daily needs.



Case in point, Ravi: A delivery partner working with Swiggy, whose monthly income falls between ₹12,000-20,000. He struggles to access credit from banks, as his income is irregular and lacks formal documents.

Before Karma Life:

- Unpredictable cash flow
- Often borrows from friends or informal lenders to cover mid-month expenses or emergencies
- Finds digital loan apps confusing, with hidden charges and high-interest rates

After Karma Life:

- Has earned wage access and short-term credit linked directly to his work patterns on the delivery app
- His repayment capacity is automatically adjusted to his real income, with deductions as he earns

PRODUCT DESIGN

Contextualised terms: Flexible credit repayments

PehchanPe: Empowering street vendors to access government schemes more organically

The government launched the PM Street Vendor's Atma Nirbhar Nidhi (PMSY) program to revive and support street vendors.

While groundbreaking, its full potential is limited by a complex application process, low awareness, and heavy reliance on urban local bodies for loan approvals. Moreover, NPAs, which currently stand at 12% for PMSY loans, are a challenge.

To address these issues, MAKSPay developed the PehchanPe app, enabling street vendors to digitally apply for loans from their preferred location.

MAKSPay's field agents also provide hands-on support to vendors hesitant to use digital platforms. This streamlined process has reduced the credit disbursement time from 30 days to under 30 minutes.

THE INNOVATION AND ITS IMPACT:

MAKSPay and its partner bank issue co-branded QR codes installed at street vendors' vending units, linked directly to their bank accounts allows for flexible repayments, in the following ways:

Pehchan Pe can analyse street vendors' cash flows based on day and time, and **set up auto-payments when flows are their daily peak.**

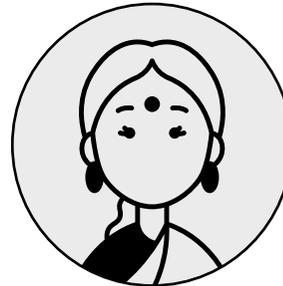
It offers **daily collections**, adjusting interest based on repayments

Since street vendors may get affected by seasonality, their **payments can be snoozed** for a few days

What this means for the credit ecosystem

Strengthens the co-lending infrastructure, enabling seamless collaboration between traditional banks, NBFCs, and new-age digital lenders.

Makes the efficiency and reach of the government scheme better by enabling easier onboarding and documentation.



Case in point, **Sunita**: Runs a street food stall at a busy corporate district, selling breakfast, lunch, tea-time snacks, and dinner. She's constantly busy, with leaving her no time to access benefits like government schemes.

Before PehchanPe:

- Little to no information on the options available to her
- Is fearful of banks, and lacks the necessary paperwork for a loan to tide over her working capital challenges

After PehchanPe:

- An advisor, trusted by many others on her street, visits her at her stall and offers to sign her up for a government scheme.
- She receives a completed application notification instantly, and a loan within a few days

PRODUCT DESIGN

Contextualised terms: Flexible credit—Loan ladder

Branch: Loan ladder to incrementally unlock creditworthiness

Credit scoring in India is still archaic, static, and limited by legacy systems, restricting potentially good borrowers from formal credit access.

This creates a vicious loop: without a loan, you don't earn a credit score, and without a good credit score, you don't qualify for a loan

Branch is a mobile-first digital lending platform that offers loans to under-served customer segments without prior credit history. These loans are underwritten by leveraging smartphone data and app behaviour.

These begin with loans as small as ₹500 and allow borrowers to work their way up to higher loan values based on their repayment patterns, thereby building good credit history and behaviour, while also gamifying the experience to keep customers engaged and incentivised to repay.

THE INNOVATION AND ITS IMPACT:

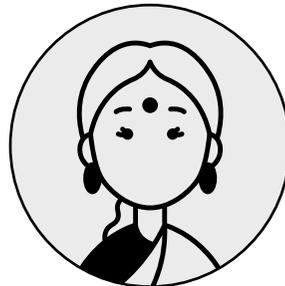
Instant small-ticket loan disburseals via a mobile app, allowing low-income borrowers to get a foot in the door

Innovative loan ladder system that incorporates a continuous credit line model, where repayment behaviour feeds into higher limits over time

Leverages real-time smartphone metadata and digital footprints for underwriting, reducing reliance on income proofs or property collateral.

What this means for the credit ecosystem

Builds pathways for previously unbanked customers—especially the estimated 70M NTC borrowers—to become viable and credit-worthy customers



Case in point, Anita: A domestic worker who earns ~₹18,000 a month. Though she manages her household expenses carefully, she often struggles to meet sudden needs like medical bills or her children's school fees

Before Branch:

- No formal income proof or credit history, making her ineligible for bank loans
- Hesitant to borrow from informal lenders due to high interest rates and rigid repayment terms
- Needs short-term, flexible loans that match her income cycle

After Branch:

- Has access to instant digital credit through her smartphone without paperwork or collateral
- She can borrow a small amount to begin with and work her way up to meet her aspirations via the loan ladder system



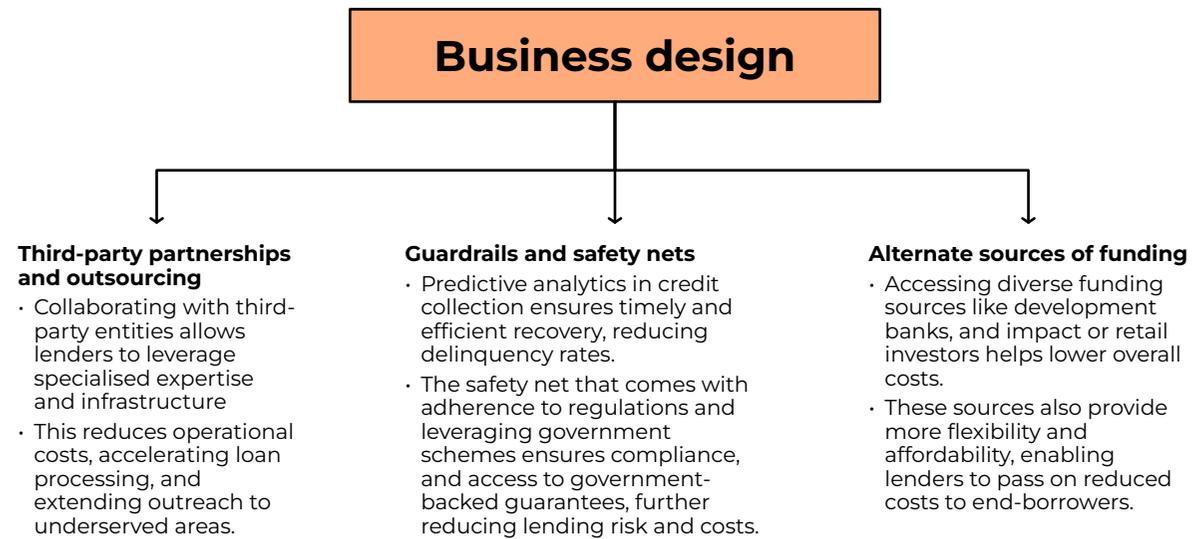
Business design

- Business model and process innovations enhance how credit services are funded, designed, and delivered.
- These innovations involve strategic partnerships, new funding mechanisms, and improved risk management practices that serve to reduce costs and improve efficiency.
- **Via these models, financial institutions can better serve more communities, while maintaining financial viability and regulatory compliance.**

A glimpse into the future

- **Predictive financial resilience and systemic risk orchestration:** Predictive analytics will evolve into proactive resilience orchestration, leveraging hyper-localised data to predict micro-level financial vulnerabilities in order to automatically trigger pre-negotiated, consent-based, adaptive interventions, such as automated micro-insurance payouts.
- **Programmable capital and community-led digital treasuries:** Funding will be democratised and programmable, sourcing from digital treasuries established by local communities, and governed by transparent, decentralised, and autonomous organisations to pool resources and directly fund local credit needs.
- **Fintech-as-a-service:** This model will allow even smaller players to offer sophisticated credit products by leveraging shared infrastructure and expertise, reducing operational costs and extending reach.

These innovations can broadly be split into three groups.



BUSINESS DESIGN

Third-party partnerships Co-lending

Emerging fintechs, equipped with extensive data and expanding customer bases, often face limitations in customising products for groups like farmers, gig workers, retailers, and women, whose needs demand flexible and context-specific terms that large banks and NBFCs are less able to provide.

A co-lending model, regulated by the RBI, facilitates a partnership between a major financial institution like a bank, and an NBFC or fintech, to collaboratively offer flexible loans supported by advanced, data-driven underwriting engines.

The bank typically supplies ~80% of the low-cost capital by leveraging its capital strength and compliance expertise, while the NBFC or fintech manages loan origination, customer outreach (especially in remote areas), credit evaluation, documentation, and loan servicing. Both partners share credit risk and interest income according to an agreed ratio, usually 80:20, with the NBFC required to retain at least 20% of the loan exposure until maturity.

What this means for financial service providers

- FY24 saw a 134% YoY increase in co-lending, indicating the value of such a model and underscoring the confidence among PSUs and large banks in leveraging this model to scale to underserved segments.
- NBFCs account for 46.2% of loans in the retail and personal segment, and at the same time, their reliance on bank borrowings has risen from 19.8% to 22.6%.

... and low-income borrowers

- A more inclusive, customer-centric borrowing experience, often including digital tools and financial education
- Borrowers benefit from faster loan approvals, competitive interest rates, and access to a wider range of tailored loan products
- Parties with limited or no credit history can access credit more easily

EXAMPLES

Navi has partnered with Piramal Capital & Housing Finance in a co-lending arrangement for digital loans. Piramal funds 80% of each loan while Navi contributes 20%, and borrowers can access up to ₹20 lakh through a fully digital process. The partnership enables Navi to scale its reach, while allowing Piramal to expand its retail loan book via digital origination.

RBL Bank and Piramal Finance have entered a co-lending partnership to expand affordable credit to LMI borrowers, especially in rural and semi-urban India. The collaboration combines RBL Bank's capital and banking expertise with Piramal's "High Tech + High Touch" model and deep on-ground reach across 13,000+ pin codes. Together, they aim to scale MSME lending, improve underwriting efficiency, reduce borrowing costs, and widen access to credit for underserved customers.

Samunnati has partnered with multiple banks, including IndusInd Bank and SBI to extend credit to FPOs and farmer collectives. Through these co-lending partnerships, Samunnati structures blended-finance and risk-shared lending models that reduce the effective cost of credit for FPOs.

BUSINESS DESIGN

Third-party partnerships First loss default guarantee

FLDG is a contractual agreement where a Lending Service Provider (LSP), usually a fintech firm, agrees to compensate a Regulated Entity (such as a bank or NBFC) for losses resulting from borrower defaults, up to a set percentage of the total loan portfolio.

Under this arrangement, the LSP covers defaults—capped at 5% by the RBI—to reduce the risk for traditional lenders, encouraging them to extend credit to a broader, more risky customer base that may lack formal credit history.

Guarantees are provided through cash deposits, fixed deposits with a lien, or bank guarantees, ensuring the LSP has the financial capacity to fulfil its commitments.

The regulated entity retains primary responsibility for classifying loans as NPAs and making provisions, preventing the transfer of core lending risk. Additionally, LSPs are required to disclose details of their FLDG arrangements publicly to promote transparency within the ecosystem.

EXAMPLES

Paytm has entered into a FLDG deal with SMFG India Credit to boost merchant lending, agreeing to absorb up to ₹225 Cr (later raised to ₹350 Cr) of first-loss risk.

The guarantee, backed by a bank guarantee or fixed deposit, provides a safety buffer for SMFG, enabling it to lend more aggressively to thin-file merchants.

As of September 2024, the portfolio under this FLDG arrangement had an outstanding AUM of ₹1,651 Cr.

KreditBee's NTC portfolio, supported by RBL Bank, expanded to ₹6,000 crore with a 92% repayment rate

What this means for financial service providers

- FLDG-backed models facilitate lending to non-traditional customers (NTCs). eg: KreditBee's NTC portfolio, supported by RBL Bank, **expanded to ₹6,000 crore with a 92% repayment rate**
- This framework encourages the development of tailored and innovative financial products that cater to the specific needs of diverse customer segments
- The 5% cap prevents excessive risk-taking by unregulated entities, ensuring sustainable digital lending growth

... and low-income borrowers

- Enhanced Consumer Protection: RBI guidelines impose a clear regulatory framework that mandates ethical lending practices, protecting borrowers from the predatory tactics
- The new rules introduce a cooling-off period, allowing borrowers a brief window (e.g., 3 days) to cancel a loan agreement without penalty
- Via these safety nets, FLDG arrangements encourage banks to offer loans to new-to-credit individuals and underserved segments

BUSINESS DESIGN

Guardrails and safety nets/alternate sources of funding: Government schemes Kisan Credit Card

The Kisan Credit Card (KCC) scheme was launched by the government in 1998, and has evolved over the years.

Beginning as a basic crop production credit facility, it's now a comprehensive, digitised, multi-purpose financial tool for farmers.

The KCC scheme streamlines access to credit for farmers, enabling them to purchase vital agricultural inputs such as seeds, fertilisers, and pesticides as well as agricultural equipment.

It also provides the flexibility to withdraw cash for production-related needs and household expenses, thereby enhancing the overall financial security of farming households.

Before the scheme's implementation, farmers faced major challenges in securing institutional credit, often relying on informal moneylenders who charged exorbitant interest rates, which hindered their productivity and economic stability.

THE INNOVATION AND ITS IMPACT:

Enables small and marginal farmers to access instant, affordable working capital; **over 7.7 crore farmers benefit with ₹10 lakh crore in active credit**

Now covers animal husbandry and fisheries, **supporting 44L+ livestock and 1L+ fishery farmers.**

Through the Kisan Rin Portal, **farm credit rose from ₹8.45L Cr (2014-15) to ₹25.48L Cr (2023-24)**, with small farmers' share up from 41% to 57%

The government provides interest subvention, effectively making the interest rate for farmers as low as 4% upon prompt repayment.

What this means for financial service providers

The scheme provides banks access to a massive rural customer base, fostering long-term relationships with farmers and enabling the cross-selling of other financial products like savings accounts and various insurance schemes.

The government's interest subvention (subsidy) and the digitising of claim processes through the KRP ensure that banks are compensated for offering low-interest loans, which mitigates some of the financial risk.

... and low-income borrowers

The KCC has shifted the primary source of credit for many farmers from informal moneylenders to formal financial institutions, providing them with access to fair and transparent interest rates and a reliable financial safety net.

The scheme has been a cornerstone of financial inclusion, particularly for small and marginal farmers, who make up ~76% of KCC account holders.

Future Potential

Bank officials often report that a lack of full awareness among farmers about the proper use and benefits of KCC (e.g., using it as a revolving cash credit) hinders the scheme's full potential.

While KCC aims to provide flexible credit, many farmers reported that the sanctioned loan amounts were insufficient for their agricultural needs. The credit limits are often determined by outdated scales of finance, which do not account for inflation and rising input cost.

BUSINESS DESIGN

Guardrails and safety nets/alternate sources of funding: Government schemes Pradhan Mantri MUDRA Yojana, or PMMY

Launched in 2015, the Pradhan Mantri MUDRA Yojana (PMMY)'s primary objective is to "Fund the Unfunded" by providing collateral-free institutional credit to small businesses in the unorganised sector.

Over the last 10 years, the scheme has sanctioned over 52 Cr loans worth ₹32.61L Cr, fuelling a nationwide entrepreneurial revolution.

The scheme provides collateral-free loans up to ₹10 lakh for non-farm, non-corporate MSMEs through Shishu, Kishor, and Tarun categories, with the new Tarun Plus offering up to ₹20 lakh for repeat, good-quality borrowers. The Credit Guarantee Fund for Micro Units (CGFMU), managed by NABARD, provides up to 75% default coverage, lowering lender risk.

THE INNOVATION AND ITS IMPACT:

Sparked an entrepreneurship revolution across the hinterlands of the country, with **~68% of loans held by women entrepreneurs** and **~50% by SC/ST/OBC categories**

MSME New Digital Credit Assessment Framework, introduced by Public Sector Banks, integrates data from Income Tax returns, GST filings, and utility payments to enable faster and more accurate credit evaluation

The online application process for enterprises (Udyamimitra portal) and the MUDRA card (a RuPay debit card) have streamlined loan disbursement, facilitating operational ease

What this means for financial service providers

Lower NPA Rates: Although the loans are unsecured, the default rate has been lower than expected at around 2.2% until 2019, significantly lower than the general rate for public sector banks

The average ticket size of loans has nearly tripled—rising from ₹38,000 in FY16 to ₹72,000 in FY23, and further to ₹1.02 lakh in FY25—reflecting growing economies of scale and a deepening of both market depth and width

... and low-income borrowers

According to an SBI report, 50% of Mudra accounts are held by SC, ST, and OBC entrepreneurs, while 11% belong to minority communities.

The scheme has boosted credit flow into the MSME sector, with their share in total bank credit having grown from 15.8% in FY14 to ~20% in FY24

Future Potential

Upward mobility for nano and micro businesses: The future will likely see further growth in the 'Kishore' and 'Tarun' loan categories, moving beneficiaries from survivalist entrepreneurship to growth-oriented businesses

There is a gap in providing business training and market linkage alongside the credit flow, which affects the sustainability of some businesses

Potential to expand into aspirational districts and create parity across regions, as nearly 50% of loans are concentrated in the 5 states of UP, Tamil Nadu, Karnataka, Maharashtra and Bihar

BUSINESS DESIGN

Guardrails and safety nets: Debt resolution and collections

Credgenics: SaaS and AI-based debt resolution to manage defaults with empathy

India's lenders lose billions each year to inefficient collections, where manual follow-ups and fragmented workflows slow recovery.

Concerns over loan delinquencies, especially within the NBFC sector, are growing.

Credgenics offers a comprehensive SaaS-based debt resolution platform for banks, NBFCs, fintech lenders to manage and recover delinquent portfolios efficiently.

With its AI-powered communication engine, lenders can deliver targeted messages tailored in tone, timing, and mode across channels like WhatsApp, SMS, email, or even GenAI-powered voicebots and videos.

Its predictive analytics enable early risk detection and proactive intervention

THE INNOVATION AND ITS IMPACT:

98M+ loan accounts worth \$250B+ managed in FY24

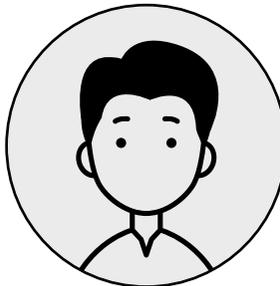
Tools like **Collect Engage** deliver personalised messaging and negotiation across channels and languages. **Credgenics Billzy**, a payment platform allows borrowers to repay loans with ease and convenience

It also digitises litigation management, notice generation, and case tracking reducing turnaround time by up to 60%.

What this means for the credit ecosystem

AI automates and personalises the end-to-end collections process enabling a 40% reduction in operational costs with up to 25% higher recovery efficiency

Offers a holistic view of borrower behaviour across 98M loan accounts, helping refine risk models and strengthen customer trust.



Case in point, **Ramesh**: Business slowed at his small mobile repair shop in Pune after the pandemic, making him miss EMI payments on his small business loan

Before Credgenics:

- Struggled to repay due to inconsistent income
- Faced harassment from recovery agents
- Lacked repayment flexibility

After Credgenics:

- Received polite digital communication about his overdue payments
- Was offered repayment options through digital channels, avoiding in-person pressure
- Repaid his dues smoothly

BUSINESS DESIGN

Guardrails and safety nets: Debt resolution and collections

Predixion: AI-based voice chats to guide potential defaulters

In a credit ecosystem where defaults often surface too late, Predixion steps in to make portfolio risk visible before it happens.

Its AI-driven risk monitoring platform ingests lender data, repayments, delinquencies, and behavioural and macro indicators to generate predictive default signals and portfolio health scores. Its conversational AI agent enhances operational efficiencies.

Its models continuously learn from repayment trends, offering early warning triggers, cohort-level stress testing, and actionable insights for collections and restructuring. It is available across channels and languages, offering hyper-personalised messages to borrowers, enabling them to plan and structure their finances better.

THE INNOVATION AND ITS IMPACT:

33% increase in recovery rates through hyper-personalised and omni-channel communication

80% call-handling efficiency rate

AI-native collections and monitoring, via inbuilt negotiation of repayment terms

What this means for the credit ecosystem

Lenders have seen a 25-30% improvement in promise-to-pay rates and engagement across channels

Potential to drive a 65% increase in pace of insights generated based on real-time call analysis
Automations savings of upto 45% in costs



Case in point, **Seema**: Running a small tailoring shop in a Tier-3 town, she took a loan to buy new sewing machines. But she often faced delayed payments from customers, affecting her ability to repay on time.

Before Predixion:

- Cash flow gaps caused missed EMI payments
- Concerns of delayed repayments labelling her as a defaulter
- Difficulties communicating repayment issues to the lender

After Predixion:

- Predixion detects early signs of stress in repayment patterns, for her lender
- Proactive reminders and flexible repayment options before she defaults
- A healthy credit profile and continued access to formal credit

BUSINESS DESIGN

Alternate sources of funding: P2P funding

India P2P: Peer-to-peer lending by women, for women

Women micro-entrepreneurs in India often face steep barriers to formal credit due to limited collateral, lack of credit history.

Despite proven repayment discipline, over 70% of women-owned enterprises remain self-financed or rely on informal sources.

On the other hand, there's a growing number of women in urban India looking for meaningful investment opportunities.

IndiaP2P bridges this gap with a tech-led peer-to-peer lending platform that connects retail investors directly with verified borrowers, mostly women.

By digitising the entire value chain from borrower onboarding to repayments, the platform enhances transparency, reduces default risk, and channels mainstream capital into underbanked women-led enterprises.

THE INNOVATION AND ITS IMPACT:

Provides loans starting as low as ₹10,000-50,000, tailored for micro and nano women entrepreneurs with interest rates of 16-18% and returns for the retail investors at 9-12%

Designed a monthly income plan for investors to build safety nets and improve confidence

Helps women build formal credit trails: **60% of borrowers access formal credit for the first time through IndiaP2P**

What this means for the credit ecosystem

- Connects retail investors directly to verified borrowers, reducing intermediation costs by up to 30% and improving credit access in underserved regions
- Provides a blueprint for how P2P and formal lenders can collaborate to scale women-focused credit - there are ~30 active P2P lending platforms operating in India, with the market is estimated to be growing at the rate of 21.6%



Case in point, **Tara**: Runs a small home-based business in a semi-urban area. She wanted to expand production, but found it difficult to get a bank loan due to lack of collateral and formal income proof.

Before India P2P:

- Limited access to affordable credit despite steady business income
- Dependent on local moneylenders charging high interest
- Loan applications at banks complicated and intimidating

After India P2P:

- Access to a small business loan funded directly by retail investors
- She now builds a formal credit history, improving future access to finance
- Transparent terms and digital servicing have reduced her borrowing costs

BUSINESS DESIGN

Alternate sources of funding: P2P funding

Rang De: Crowdfunded peer-to-peer lending for social impact

India's formal credit system often overlooks borrowers without collateral or credit history, especially women and rural entrepreneurs.

Rang De is India's first P2P Social Investment platform. It directly connects retail investors to verified borrowers through a network of NGOs and on-ground partners. For example, Rang De partnered with Tisser India and Caring Friends, to launch the Matheran e-Auto Rickshaw Fund as an asset that retail investors could collectively invest in, spreading the risk across a group of borrowers while securing it against a productive asset.

This way, Rang De decouples the twin challenges of regulatory compliance and capital costs, making it feasible for partner organisations to offer lower interest rates to the final investee.

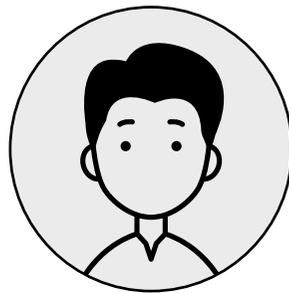
THE INNOVATION AND ITS IMPACT:

~₹80 Cr disbursed in loans with a community of over 10,000 social investors, at an NPA rate of 9.34%.

Rang De provides a regulated credit infrastructure to partner organisations, allowing them to tap into crowdsourced capital at **interest rates between 6-8%**.

What this means for the credit ecosystem

Democratised access to credit through a platform model, with lenders directly reaching beneficiaries without the cost and inefficiencies of multiple intermediaries. With entries as small as ₹100, Rang De is able to offer a large base of retail investors a meaningful investment opportunity.



Case in point, **Ramesh**: Running a home-based pottery business, he often struggles to buy raw materials in bulk or expand his setup, as banks consider him a high-risk borrower with no formal credit record.

Before Rang De:

- His irregular income and lack of collateral prevent access to traditional credit
- Often relies on local money lenders who charge high interest rates
- Finds bank procedures intimidating and time-consuming

After Rang De:

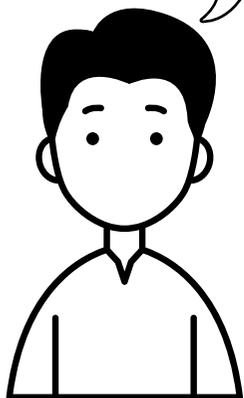
- He received a low-interest social investment loan through an artist collective that is an accredited NGO partner to Rang De
- The entire process, from application to disbursement, was digital and assisted by a local NGO partner
- With timely repayments, Ramesh improved his credit score and now accesses repeat loans at better terms
- Similar to him, many other artisans in the community have been able to get credit, through the artists fund set up by Rang De and the NGO

Annexure

Let's take a closer look: **Accessibility of service**
How does one access a quick loan from a trusted source, without having a vehicle or the time to visit a bank?

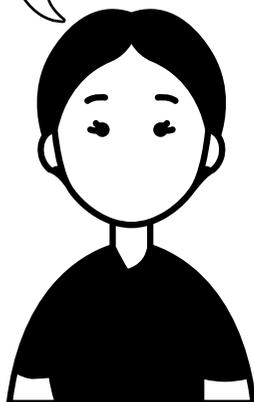
Rural residents

Micro-finance institutes only offer loans in groups, can I access an individual loan like I access MFI loans (through a BC)?



Rural women

I am constrained by my ability to travel, can I get all the details of a loan as easily as I do through MFI BCs or SHG Leaders?



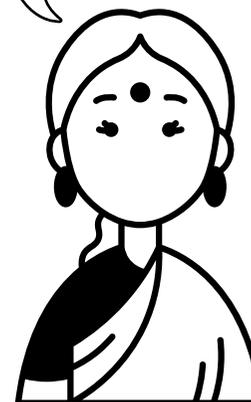
Rural marginalised

Can I trust and understand the terms of a loan, when there is no person to help me?



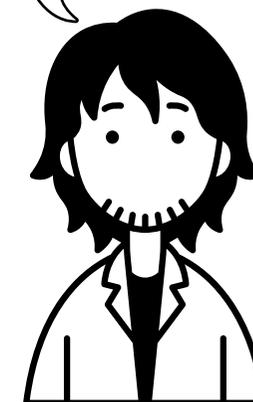
The small-business owner

I am the only one who runs my shop, I don't have time to go to a bank/NBFC branch to apply for a loan, how do I get a loan instantly?



The gig worker

I have a phone and would like to borrow through digital loan apps, but will I be safe?

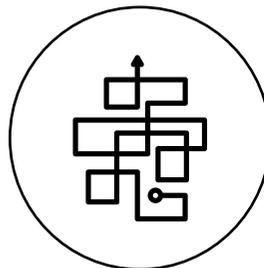


What constrains accessibility?



Too few NBFC and bank branches catering to low-income customers, especially in rural areas

Only 50% of low-income rural households access to formal financial services within a 5km radius or through MFIs



Complicated digital and formal banking processes

Studies show that over 60% of first-time digital banking users cite difficulty in understanding procedures and interfaces as a primary barrier to adoption

The innovation opportunities

We'll be breaking these down into four broad categories:

Technology

Product

Business

Infrastructure

Where **accessibility** is concerned, this is where institutions are innovating:

AI-leveraged interfaces

Can improve loan officer and branch manager productivity by streamlining in-person borrower services. Human-like AI chatbots can also help assist customers navigate complex processes more confidently.

Digital lending

Online processes and mobile experiences expand access to credit to the remote and underserved. Reduced manual intervention also cuts operational and customer acquisition costs.

Embedded finance

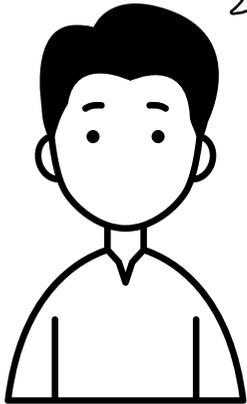
Integrates financial services directly into everyday life experiences, improving convenience, and extending revenue streams.

Their need: Eligibility

How does one get an affordable loan without stable income or owning property?

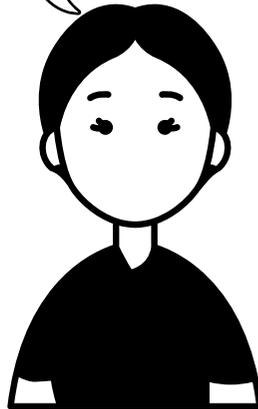
Rural residents

I need a good credit score to access loans via NBFCs and digital lenders, how do I build one without previously taking out a loan?



Rural women

I work in a household as a cook, I don't have formal pay slips, how do I prove my income stability?



The small-business owner

Can my self-declared business income or cash transactions be considered as collateral or proof of business?

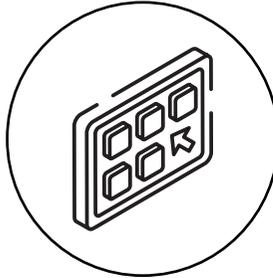


The gig worker

Do financial institutions and digital lenders consider gig work as a formal job, will I qualify for loans?

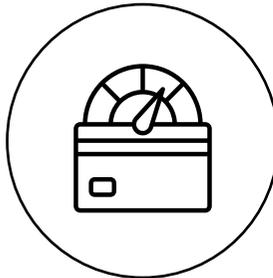


What constrains eligibility?



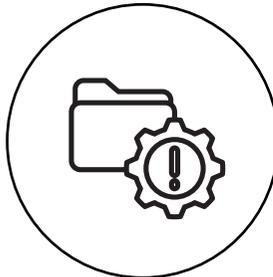
Digital and formal banking processes can feel complex and hard to navigate

Studies show that over 60% of first-time digital banking users cite difficulty in understanding procedures and interfaces as a primary barrier to adoption.



No "credit bureau" equivalent for alternate data or group loans

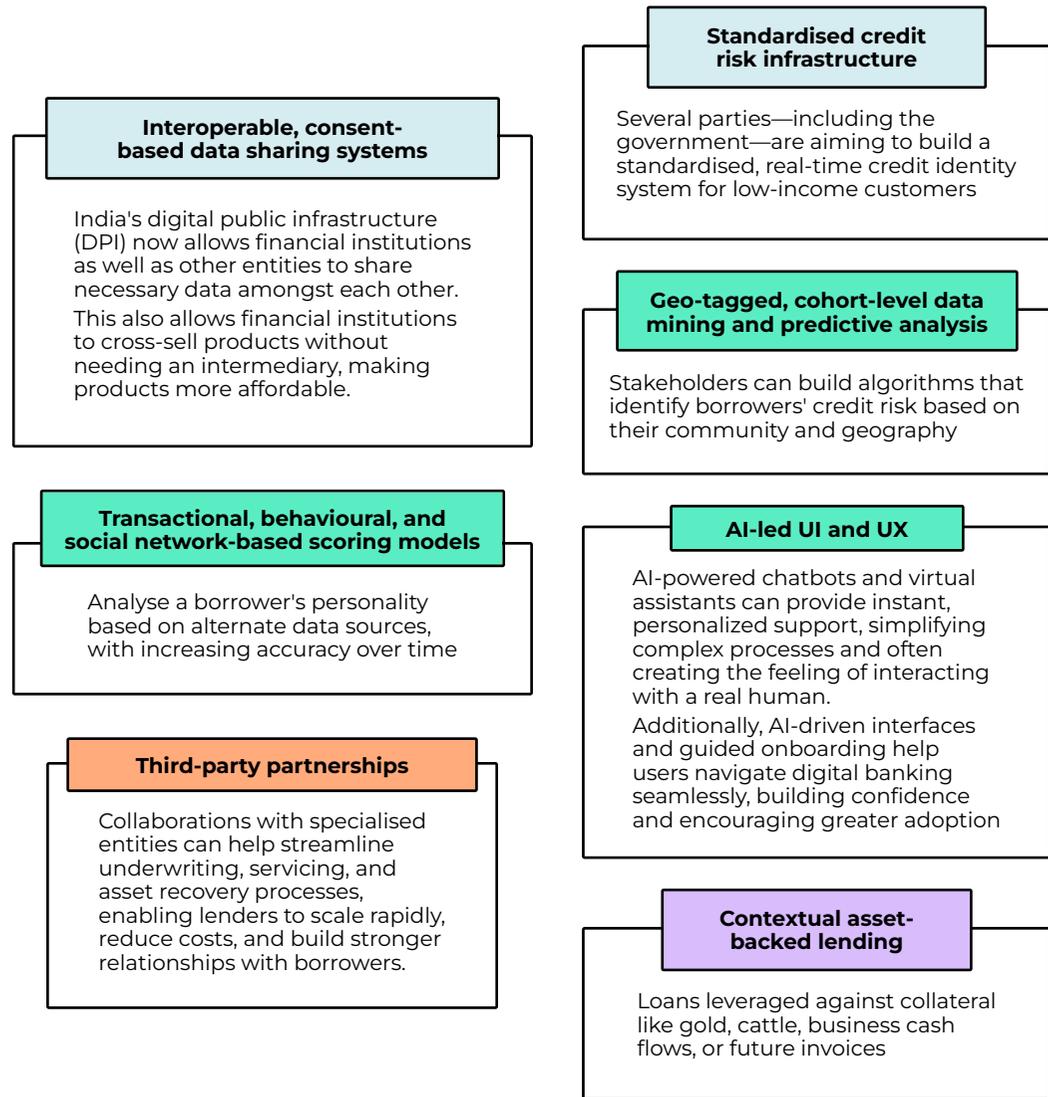
97% of low-income borrowers remain unclear of their eligibility **without a standardised credit score system** that leverages alternate data. Instead, they remain reliant on fragmented parameters that vary from one institution to another.



Inconvenient, out-of-context documentation and verification

Despite technological strides, the processes of screening, verifying, and collecting are often manual and rigid, with 60% of MSME owners citing these requirements as a major barrier to formal credit access.

The innovation opportunities

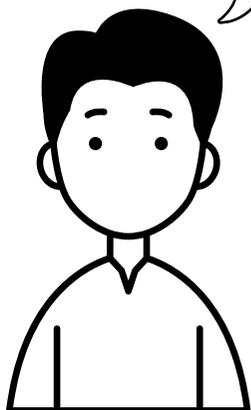


Their need: Disbursement

How does one access working capital for urgent requirements instantly?

Rural residents

I run a dairy farm, I need cash to buy cattle feed from the market tomorrow.



The small-business owner

My vendors take 30 days to pay me, but I have payments to make during this time and need cash to complete them.



The gig worker

I earn every seven days from my gig work platform, and most customers pay online, leaving me constrained to cover fuel and other costs.



What constrains disbursement?



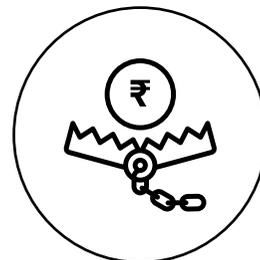
Low income borrowers need multiple small loans, instead of one big loan

On average, the active MFI customer takes about 2-4 loans over 3-5 years, at 0.4-1.3 loans per customer



Borrowers need support managing their loan usage

Absence of proper tracking mechanisms and financial literacy elevates credit risk and dependency on short-term borrowing.



Over-indebtedness and debt traps via digital alternates

Immediate relief from quick loans by digital platforms leads some borrowers to take multiple loans from different platforms. This can lead to effective interest rates of 100-200%.

The innovation opportunities

Gradually building up credit-worthiness

A loan ladder allows customers to make their way up to borrowing bigger amounts, while also reducing provider risk

Reimagining collections

Leveraging digital channels, automation, and AI/ML to enhance repayment processes via personalised reminders, digital wallets, and flexible collection strategies

Closed-loop loans to track usage and monitor real-time

These leverage systems to tag the productive asset and closely monitor and directly recover income from its usage

Guardrails and failsafes

Leverage analytics and AI to monitor and act on borrower behaviour and financial health in real-time

Verticalisation of loan products

Tailoring specific credit offerings for niche segments can help lenders develop targeted risk models and build expertise, resulting in faster approvals

Alternate funding sources for flexible, contextual loan terms

Emerging government schemes and retail investors can prove to be more risk-free alternatives for lenders and borrowers

Their need: **Collection**

How does one repay loans periodically without stable, monthly income?

Rural marginalised

I've had a family emergency and will likely not be able to meet my repayment this month, can I pause my repayment for a month?



The small-business owner

I earn on a daily basis, it's hard for me to save cash, as there are competing priorities, can I repay daily?

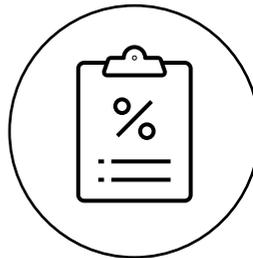


The gig worker

Can money be directly deducted as I earn online through the gig platform?

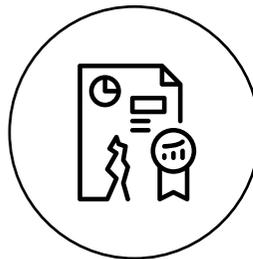


What constrains collection?



The EMI is an ill-fitting model for low-income borrowers

Their rigid repayment structures do not accommodate for their fluctuating income, potentially pushing them into a cycle of late payments and higher charges.



Once a defaulter, always a defaulter

Evaluating borrower intent and capability with nuance almost always needs in-person verification, or super-intelligent data systems.

The innovation opportunities

Flexible repayments

These offer payment schedules that adapt to borrowers' cash flows and financial situations, improving repayment convenience, and reducing stress and default rates

Guardrails and empathetic default resolution

Intelligent data-backed collections systems can provide early warning signals and collections pathways, as well as personalised nudges when recovery is a challenge

About IIMA Ventures

This study was a part of IIMA Ventures' ongoing intervention focused on boosting women's financial inclusion.

Funded by the Gates Foundation, this Initiative supports early- and growth-stage fintechs in building and scaling solutions that improve financial access, usage and thereby outcomes for women, especially from low-income segments.

The program is currently supporting over 12 startups including but not limited to Dehaat, Kuberjee, Saathi, Merakal, Merabills, RangDe, Dvara eDairy, Kaleidofin, and MoneyPurse.

With a goal of reaching 25 million women across India, the Initiative also encapsulates rigorous actionable research and coaching - in the form of sprints and webinars - to equip fintechs to build women centric financial products.

One of these efforts is a monthly talk series - Build For Her - curated to unravel insights and advice from fintech founders (and occasionally, researchers) for other startups seeking to service the large still unaddressed customer - the women of Bharat.

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Improving Access to Credit with Inclusive Innovations

