

## Risk and Underwriting Policy - Section 1: RISK MODEL OVERVIEW

BlueLoans4all employs a robust and adaptive Risk Assessment Model designed to evaluate creditworthiness across diverse borrower profiles, particularly in the underserved microlending sector. This model integrates traditional financial metrics with alternative behavioral data points to derive a holistic credit score.

The primary objectives of our risk model are:

- To identify and mitigate potential default risks.
- To promote financial inclusion by assessing non-traditional borrowers fairly.
- To dynamically adapt to evolving financial behaviors and economic conditions.

Key Inputs:

1. Traditional Bureau Scores: CIBIL, CRIF, and Experian data pulled via API integrations.

2. Alternative Data:

- Bank account transaction history (cash inflows/outflows, balance trends)
- UPI usage and payment frequency
- Utility and rent payments
- Business receipts from online aggregators

3. Device & Identity Signals:

- SIM tenure and stability
- GPS-based location consistency
- Biometric match score during KYC

Risk Categorization:

- **Low Risk**: CIBIL  $\geq 725$ , consistent EMI history,  $\geq 6$  months business existence
- **Moderate Risk**: CIBIL between 650-724 or new-to-credit but stable cash flow
- **High Risk**: CIBIL  $< 650$ , previous delinquencies, cash flow irregularities

Decisioning is supplemented by an ML-based risk engine trained on 50,000+ historical lending outcomes. It predicts probability of default (PD), expected loss (EL), and assigns a confidence score to every application.

## Risk and Underwriting Policy - Section 2: INCOME AND CASH FLOW ASSESSMENT

Income assessment is pivotal to responsible microlending. BlueLoans4all relies on a combination of inferred income modeling, account analytics, and business profiling to evaluate a borrower's capacity to repay.

For salaried individuals:

- Minimum of three months' bank statements required.
- Salary inflow should be regular and from a verifiable employer.
- Income is validated using AI-powered bank statement parser (OCR + categorization).

For business owners and informal sector borrowers:

- Inflows categorized into customer payments, merchant settlements, and peer-to-peer transfers.
- Average monthly cash inflow must meet 1.8x of proposed EMI value.
- Consistency of cash flow over at least 6 months is essential.

Red Flag Indicators:

- Cash deposits with no identifiable source.
- Sudden surge in inflows immediately before application.
- More than 7 NSF (non-sufficient fund) events in the last 90 days.
- Overdrafts or late fees > INR 2000/month.

System-generated cash flow risk score is normalized on a 0-100 scale and heavily weights stability and liquidity ratio (available cash vs. committed expenses).

## Risk and Underwriting Policy - Section 3: KYC AND FRAUD DETECTION

BlueLoans4all strictly adheres to RBI's KYC (Know Your Customer) norms and has instituted an advanced multi-layer fraud detection protocol integrated with our onboarding systems.

Acceptable Proofs:

- PAN Card (mandatory for all loans)
- Aadhaar with address matching GPS from onboarding device
- Voter ID, Passport, or Driving License as secondary ID
- GST registration or business license (for entrepreneurs)

KYC Validation Flow:

1. DigiLocker API integration fetches documents from govt. servers
2. Face match score computed between selfie and ID image (OpenCV + AI)
3. Geo-tagging validated with declared residential/business address
4. Aadhaar XML data parsed to verify name, DOB, and gender

Fraud Signal Triggers:

- Re-used Aadhaar across multiple recent applications
- Device-SIM mismatch
- Suspicious IP geolocation activity
- Photoshopped ID documents detected via metadata mismatch

Every flagged application is paused and routed to Risk Ops queue for enhanced due diligence.

## Risk and Underwriting Policy - Section 4: UNDERWRITING APPROVAL LOGIC

The underwriting engine is designed to translate complex borrower profiles into quantifiable scores to aid in decision-making. This rule-based + AI-enhanced system is embedded within our Loan Origination System (LOS) and orchestrated via APIs.

### Component-wise Scoring Matrix:

- Credit Bureau Report: 25 points
- Verified Income & Cash Flow: 25 points
- KYC Trust Score: 15 points
- Internal Repayment Track Record: 25 points
- Consistency of Documents: 10 points

### Final Decision:

- Score  $\geq 70$  -> Auto-approval
- Score 50-69 -> Manual underwriter review
- Score  $< 50$  -> Auto-rejection with adverse action reasons

### Edge Case Handling:

- New-to-credit (NTC) profiles are assigned provisional scores using surrogate factors.
- Women-led microenterprises are evaluated with custom logic under the Inclusion Policy.
- Appeals allowed with updated proofs and income statements within 5 working days.

Decision outcomes are logged in a secure, auditable ledger along with underwriting notes.

## Risk and Underwriting Policy - Section 5: PORTFOLIO MONITORING AND FEEDBACK LOOP

Risk assessment doesn't stop at loan disbursement. Continuous portfolio monitoring ensures that changing borrower behavior is reflected in real-time risk scoring, enabling early interventions.

### Monitoring Metrics:

- EMI punctuality and bounce frequency
- UPI transaction decline rates
- Negative balance streaks in linked bank account
- Communication sentiment from chatbot/PFA interactions

### Geo-tagged segmentation:

- Risk Zones are auto-updated quarterly based on default rate, repayment consistency, and economic signals.
- Field agents are issued zone-specific borrower alert sheets every month.

### Predictive Triggers:

- Anomalies in transaction patterns generate alerts for possible distress.
- Excessive helpline contact frequency may indicate financial stress.
- Location movement away from business HQ for > 10 days is flagged.

### Feedback Loop:

- Every delinquency feeds back into retraining the underwriting model.
- Missed EMI + early payoff data is used to calibrate scoring sensitivity.

Real-time dashboards are monitored by the Risk Analytics team and policy tweaks are rolled out monthly based on risk trends.