**Parameters, Significance & Weight Distribution**

| **Parameter** | **Definition** | **Significance** | **Weight (%)** |
| --- | --- | --- | --- |
| **1. Credit Score** | Numeric score (300–900) reflecting repayment history and credit behavior | Primary measure of creditworthiness. Higher scores correlate with lower default risk. | 25% |
| **2. Repayment History** | History of EMI payments, delays, write-offs, settlements | Identifies behavioral trends. Even a high score loses value if defaults or DPDs exist. | 25% |
| **3. Credit Utilization** | Utilization of available credit limit (especially on cards) | Over 50% usage suggests dependence on credit. Ideal is under 30%. | 10% |
| **4. Enquiry Frequency** | Number of loan/credit enquiries in the last 6-12 months | High frequency indicates aggressive borrowing behavior, possibly under financial stress. | 10% |
| **5. Credit Mix** | Balance between secured (e.g., housing) and unsecured (e.g., credit cards) | A healthy mix reflects credit maturity and financial strength. | 10% |
| **6. Account Activity** | Distribution and maturity of active and closed accounts | Reflects experience with handling debt. 4+ active and 3+ closed loans reflect good financial history. | 10% |
| **7. Asset-Backed Loans** | Whether borrower has secured loans (auto, home, property, gold) | Reduces risk to lender due to collateral availability. | 10% |

**Score Interpretation and Grade Brackets**

| **Score Range** | **Grade** | **Interpretation** |
| --- | --- | --- |
| 80 and above | A – Low Risk | Strong borrower, good score, no defaults, well-balanced profile |
| 60 – 79.99 | B – Moderate Risk | Some risk indicators present, good to fair profile |
| 40 – 59.99 | C – High Risk | High utilization, frequent enquiries, or defaults |
| Below 40 | D – Very High Risk | Likely to default, defaults/written-offs visible |

**Weight Justification Logic**

**Tier 1 (50% total) – Foundational Indicators:**

* **Credit Score** and **Repayment History** account for half the score.
* These are predictive of future behavior and default probability.

**Tier 2 (20% total) – Behavioral Red Flags:**

* Utilization & enquiries offer insight into financial discipline.
* These are dynamic and short-term predictors of risk.

**Tier 3 (30% total) – Structural Stability:**

* Credit Mix, Account Activity, and Asset-backed loans provide long-term risk protection.
* These indicate maturity, responsibility, and lower exposure risk.

**Score Scenarios**

**Scenario 1: Strong Applicant (Grade A)**

| **Component** | **Score** | **Weight** | **Weighted Contribution** |
| --- | --- | --- | --- |
| Credit Score: 781 | 8.02 | 25% | 20.05 |
| Repayment History | 10 | 25% | 25.00 |
| Credit Utilization: 15% | 10 | 10% | 10.00 |
| Enquiry Count: 2 | 10 | 10% | 10.00 |
| Credit Mix: Balanced | 10 | 10% | 10.00 |
| Accounts (5 active, 5 closed) | 10 | 10% | 10.00 |
| Has secured loan | 10 | 10% | 10.00 |
| **Total Score** |  |  | **95.05** |
| **Grade** |  |  | **A – Low Risk** |

**Scenario 2: Average Profile (Grade B)**

| **Component** | **Score** | **Weight** | **Weighted Contribution** |
| --- | --- | --- | --- |
| Credit Score: 685 | 6.41 | 25% | 16.02 |
| Repayment History | 10 | 25% | 25.00 |
| Credit Utilization: 55% | 6 | 10% | 6.00 |
| Enquiry Count: 6 | 5 | 10% | 5.00 |
| Credit Mix: Slightly unsecured | 7 | 10% | 7.00 |
| Accounts (3 active, 2 closed) | 6 | 10% | 6.00 |
| Has secured loan | 10 | 10% | 10.00 |
| **Total Score** |  |  | **75.02** |
| **Grade** |  |  | **B – Moderate Risk** |

**Scenario 3: High Risk (Grade C)**

| **Component** | **Score** | **Weight** | **Weighted Contribution** |
| --- | --- | --- | --- |
| Credit Score: 610 | 5.16 | 25% | 12.91 |
| Repayment History | 4 | 25% | 10.00 |
| Credit Utilization: 85% | 4 | 10% | 4.00 |
| Enquiry Count: 12 | 3 | 10% | 3.00 |
| Credit Mix: Unsecured | 6 | 10% | 6.00 |
| Accounts (2 active, 1 closed) | 5 | 10% | 5.00 |
| No secured loan | 5 | 10% | 5.00 |
| **Total Score** |  |  | **45.91** |
| **Grade** |  |  | **C – High Risk** |

**Suggestions for Lenders Based on Grade**

| **Grade** | **Suggested Action** |
| --- | --- |
| A | Approve – low risk, offer best interest terms |
| B | Approve with conditions – income, tenure, margin |
| C | Cautious – ask for collateral or co-applicant |
| D | Reject or approve only under secured/short term |

Loan Appraisal Scorecard – Extended Parameters and Risk Scoring Enhancements

# 1. Income-to-EMI Ratio (IEMI)

Definition:  
The IEMI ratio is calculated as:  
 IEMI = (Total Monthly EMI Obligations / Net Monthly Income) \* 100  
  
Significance:  
- Measures the affordability of the borrower's credit burden.  
- Ideal IEMI should be less than 40% for most loan products.  
- Indicates repayment capacity relative to income.  
  
Weight Recommendation: 15% (if income is available)  
Scoring Benchmarks:  
- IEMI < 30% → Score 10  
- IEMI 30–40% → Score 8  
- IEMI 40–50% → Score 5  
- IEMI > 50% → Score 2

# 2. Soft Pull vs Hard Pull Enquiries

Definition:  
- \*\*Soft Pulls\*\*: Self-checks or lender pre-approvals that do not affect credit score.  
- \*\*Hard Pulls\*\*: Lender-initiated checks for loan sanction; impacts credit score.  
  
Significance:  
- Distinguishing helps avoid penalizing customers for informational checks.  
- Only hard pulls should be factored into Enquiry Frequency score.  
  
Implementation Note:  
- Parse bureau report flags to identify enquiry type (where available).

# 3. Bureau Variance & Consistency Flag

Definition:  
Checks if reported data across bureaus (CIBIL, CRIF, Experian, Equifax) varies significantly.  
  
Significance:  
- Mismatches in accounts, DPD, or score indicate data gaps, manipulation, or misreporting.  
- High consistency = high trust in profile.  
  
Weight Recommendation: 5%  
Scoring:  
- Full consistency → 10  
- Minor mismatch (1–2 accounts) → 7  
- Moderate mismatch (3–4 accounts) → 5  
- High mismatch (>5 accounts or scores differ by >100 points) → 2

# 4. Time-Decay Weighted Scoring

Definition:  
Recent behavior is more predictive than older data. Applies to DPDs, enquiries, and utilization.  
  
Scoring Enhancement:  
- Apply multipliers: (12-month weight > 24-month > 36-month)  
 For example: DPDs in past 6 months ×1.5, next 12 months ×1.0, older ×0.5  
  
Benefits:  
- Accurately rewards improved credit discipline.  
- Helps rehabilitated borrowers climb scoring ladder.  
  
Applicable Areas:  
- Repayment History  
- Enquiry Frequency  
- Utilization Trends