

geometry: margin=1in mainfont: "DejaVu Sans" —

## BadeBhaiSaab Product Concept: Pillar 1 Blueprint

### User Onboarding & AI Financial Profiling (The Core Engine)

Document Version	Date	Status	Prepared By
<b>2.0 (Micro-Detail Blueprint) Pillar Scope</b>	December 19, 2025  The entire user journey from initial download to final eligibility decision.	Ready for Engineering & Design	Product Management Office (PMO)

## Table of Contents

Section	Title	Page
<b>I.</b>	<b>Strategic Mandate &amp; Pillar Goals</b>	3
1.1	Strategic Mandate: The 360° Profile	3
1.2	Success Metrics & KPIs for Pillar 1	4
1.3	Target User Profile (Initial Pilot Focus)	5
<b>II.</b>	<b>The Onboarding Funnel: High-Level Flow &amp; Decision Tree</b>	6
2.1	The 4-Stage Onboarding Flow	6
2.2	Key Decision Point: API vs. Manual Input	7
2.3	Key Decision Point: Eligible vs. Counseling-First	8
<b>III.</b>	<b>Data Collection Strategy &amp; Technical Specifications</b>	9
3.1	Strategy A: Account Aggregator (AA) API Data Ingestion	9
3.2	Strategy B: Credit Bureau API Data Ingestion	11
3.3	Strategy C: User-Input Data & Guided Questionnaires	12
3.4	Strategy D: OCR & Document Processing (The Fallback)	14

Section	Title	Page
3.5	Mandatory Data Matrix & Security Requirements	15
<b>IV.</b>	<b>Screen-by-Screen UX &amp; Content Flow (The Incentivized Journey)</b>	16
4.1	Stage 1: The Trust & Consent Block	16
4.2	Stage 2: The Core Data Submission (Credit & Cashflow)	19
4.3	Stage 3: Assets, Liabilities, & Behavior Questions	23
4.4	Stage 4: Profile Submission & Reward Allocation	27
<b>V.</b>	<b>The AI Engine: Alternative Credit Score (ACS) Logic Breakdown</b>	29
5.1	Model 1: Credit History & Behavior Score (CHBS)	30
5.2	Model 2: Cashflow & Spending Patterns (CSP)	32
5.3	Model 3: Assets & Resilience Score (ARS)	34
5.4	Model 4: Liability Prioritization Engine (LPE)	36
5.5	The Final Alternative Credit Score (ACS) Formula	38
<b>VI.</b>	<b>The Eligibility Gate: Decision Matrix &amp; Routing</b>	40
6.1	The Three-Factor Eligibility Rule	40
6.2	Outcome A: Membership-Eligible User Routing	41
6.3	Outcome B: Counseling-First User Routing	42
<b>VII.</b>	<b>Post-Profiting Outputs &amp; Conclusion</b>	44
7.1	The Personal Financial Report (PFR) Detail	44
7.2	Final Summary and Key Performance Indicators (KPIs)	46

## I. Strategic Mandate & Pillar Goals

### 1.1 Strategic Mandate: The 360° Profile

The strategic mandate of the **User Onboarding & AI Financial Profiling** pillar is to solve the dual problem articulated in the Product Concept Note: **Limited Access to Credit** and **Poor**

## Financial Visibility & Guidance (P1).

Strategic Goal	Problem Addressed	Pillar 1 Solution	Core Technology
<b>Credit Inclusion</b>	The “credit-invisible” lack formal documentation, leading to complete exclusion from formal credit (P4, P5).	<b>AI-Driven Financial Profiling (P1):</b> Assesses creditworthiness based on <i>cash flow</i> and <i>asset ownership</i> (P5).	Alternative Credit Score (ACS) Model
<b>Debt Spiral Prevention</b>	Late fees, penalties, and high-interest short-term borrowing cause credit score damage (P1, P4).	<b>Liability Prioritization Engine (P10):</b> Determines the most damaging liability to clear first with the Short-Term Interest-Free Credit (P2).	Liability Prioritization Engine (LPE)
<b>Behavioral Change</b>	Nearly 45% of Indians have never checked their credit score. Lack of visibility makes budgeting and debt consolidation hard (P1).	<b>Personal Financial Report (PFR) (P11):</b> Provides a simple, visual diagnosis of financial health, setting the stage for advisory.	Cashflow & Spending Patterns Model (CSP)

## Goal of User Onboarding

To achieve **100%** data integrity and  $> 65\%$  conversion rate for the full profile submission through a secure, incentivized, and transparent process, thereby mitigating data scarcity and high acquisition cost risks (P5).

## Goal of AI Financial Profiling

To generate an **ACS** that is  $> 15\%$  more predictive of **90 + DPD** default risk for the target cohorts (gig workers, students) than the traditional CIBIL/Experian score alone, by incorporating alternative data.

## 1.2 Success Metrics & KPIs for Pillar 1

The success of the entire program hinges on the metrics defined below.

Metric	Definition	Target Goal (Pilot Phase)	Owner
<b>Full Profile Conversion Rate</b>	(% of users who complete all 4 Stages / % of users who start Stage 1).	<b>&gt;65%</b>	PM, UXD

Metric	Definition	Target Goal (Pilot Phase)	Owner
<b>API Adoption Rate</b>	(% of users who successfully link via AA/Bureau API / Total users).	<b>&gt;80%</b>	TL, PM
<b>Document Integrity Score (DIS) Avg.</b>	Average score from the Document Tampering Algorithm (1.3.4).	<b>&gt;95/100</b>	AI/ML, CRA
<b>OCR Accuracy</b>	Accuracy of parsing key data fields (e.g., transaction amount) from manual uploads.	<b>&gt;98%</b>	AI/ML
<b>Non-Credit Cost-to-Serve (CTS) Reduction</b>	Reduction in human time spent on manual data entry/verification.	<b>&gt;70%</b>	Operations Head
<b>ACS Predictive Power</b>	AUC (Area Under the Curve) score for ACS predicting <b>90 + DPD</b> .	<b>AUC &gt; 0.75</b> (on pilot data)	DS, CRA
<b>Counseling-First Engagement Rate</b>	(% of non-eligible users who complete the first 3 counseling modules).	<b>&gt;50%</b>	PM, Operations Head

### 1.3 Target User Profile (Initial Pilot Focus)

The entire flow is optimized for the strategic pilot cohorts: **Urban Low-Income Earners (Gig Economy)** and **Young Individuals & Students (P8)**.

Attribute	Urban Low-Income Earners (Gig)	Young Individuals & Students	Onboarding Optimization
<b>Financial Challenge</b>	Income volatility, irregular/daily/weekly income (P4).	Thin credit file, credit naivety, poor financial habits (P6).	Focus on <i>Cashflow</i> data; gamified advice.
<b>Digital Acumen</b>	High smartphone penetration, reliance on apps (P4).	Highly tech-savvy, digitally native (P6).	<b>Prioritize API/Digital Acquisition</b> (Low Acquisition Cost) (P8).
<b>Data Richness</b>	Alternative Data Rich: Platform earnings, location data (P4).	Thin File Problem (Limited credit history) (P6).	<b>OCR/Manual Upload</b> must be robust for non-AA data.
<b>Engagement</b>	High Churn risk if membership fee/credit is insufficient (P4).	High Engagement potential with AI/Gamification (P6).	<b>Incentivized Flow &amp; Instant Reward</b> upon completion (P10).

## II. The Onboarding Funnel: High-Level Flow & Decision Tree

The onboarding is a **Non-Linear, Incentivized Guided Journey** designed to secure maximum data at minimum cost while building trust.

### 2.1 The 4-Stage Onboarding Flow

Stage	Goal	Key Activity	Output for AI	Incentivization Model
<b>Stage 1: Trust &amp; Vetting</b>	Establish trust, confirm target user criteria, secure KYC & Consent.	KYC (PAN/Aadhaar) submission, Target Score Check (<750), Data Privacy Consent.	KYC Data, Initial Score Check.	<b>Voucher/Bonus</b> for Consent (e.g., ₹50 mobile recharge voucher).
<b>Stage 2: Core Data Submission</b>	Ingest the highest-value data (Cashflow & Credit History).	API: Account Aggregator (AA) linking <b>OR</b> Manual Upload/OCR of Bank Statements (P10). API: Credit Bureau Report Pull (P10).	Raw Transactions (12M), Official Credit Report.	<b>High Point Allocation</b> for AA linking/OCR processing (P10).
<b>Stage 3: Profiling Data (Guided Input)</b>	Collect high-context, low-friction data points on assets, liabilities, and behavior.	Short, guided questions on assets (FD, Property), secondary liabilities (fines, utility bills), and financial behavior.	Assets/Investment Data, Secondary Liability Data, Behavioral Flags.	<b>Bonus Points</b> for each completed section.
<b>Stage 4: AI Processing &amp; Decision</b>	The back-end runs the AI models and generates the final user output.	<b>User Wait Screen</b> (5-10 seconds) while 4 models run (P3). <b>AI Model Run:</b> OCR, CHBS, CSP, ARS, LPE, ACS.	Alternative Credit Score (ACS), Personal Financial Report (PFR), Eligibility Decision.	<b>Final Joining Bonus</b> (can be applied to Membership Fee/First Liability) (P10).

### 2.2 Key Decision Point: API vs. Manual Input

This decision point is crucial for the **Digital Accessibility** of the program (P4). The UX must *strongly* guide the user to the API path, while the Manual path must be robust and secure.

Decision Path	Interaction Flow	Goal	Handoff
<b>API Path (Preferred)</b>	User selects AA/Bureau → Consent Screen → OTP/Verification → Data fetched seamlessly.	<b>Efficiency &amp; Data Quality:</b> Highest quality, structured data immediately. Highest Acquisition Efficiency (P4).	<b>Raw Transactions (Structured JSON)</b> to CSP Model.
<b>Manual Path (Fallback)</b>	User selects Manual → Guided Upload Wizard for Bank Statements/Bills/Credit Report (PDF/Image).	<b>Inclusion &amp; Resilience:</b> Caters to low digital literacy and non-AA-compliant documents.	<b>Raw Documents (PDF/Image)</b> to OCR/Parsing Engine (P10, P12).

## 2.3 Key Decision Point: Eligible vs. Counseling-First

This is the final outcome of Pillar 1, powered by the AI Engine.

Outcome Path	ACS Trigger	Initial Offering	Goal of Routing
<b>Outcome A: Membership-Eligible</b>	Profile indicates <b>positive cashflow potential</b> and <b>limited/resolvable delinquencies</b> (P11).	Access to <b>Liability-Free (0% interest) Credit</b> and Free/Paid Membership Tiers (P11).	<b>Credit Graduation:</b> Start structured repayment and build credit score (P2, P6).
<b>Outcome B: Counseling-First</b>	Profile indicates <b>chronic defaults, severe instability, or unsustainable repayment capacity</b> (P11).	<b>Human Financial Counseling</b> and Content Flywheel (P11). <b>NO Credit</b> is extended (P11).	<b>De-risking &amp; Re-engagement:</b> Stabilize behavior, control expenses, prepare for future eligibility (P11, P12).

## III. Data Collection Strategy & Technical Specifications

This section outlines the exact data fields required, their source, and the technical method of collection.

### 3.1 Strategy A: Account Aggregator (AA) API Data Ingestion

This is the primary data source for **Cashflow & Spending Patterns (CSP)** and must cover a minimum of **12 months** of data (24 months preferred).

**AA API Specification:** GET /financial-transactions

Field Name	Type	Data Requirement	Purpose in AI Model
transaction_date	Date/Time	12M lookback, normalized to UTC.	Income Volatility Index (IVI) calculation (5.2).
transaction_amount	Numeric	Absolute value in INR. Must be separated by Cr/Dr.	Surplus/Deficit Metrics (5.2).
transaction_type	Enum (CREDIT/DEBIT)	Essential for income/expense categorization.	Spending Patterns (Essential vs. Discretionary) (P1).
transaction_narration	String	Bank description (e.g., "NEFT to LENDER_X").	<b>Lender Identification</b> (Input to LPE) and income source verification.
account_balance	Numeric	End-of-day balance.	<b>Low Savings Flag</b> (5.2) and Asset Verification (5.3).
loan_repayment_flag	Boolean (Internal Logic)	Flag transactions matching known EMI amounts/lender names.	<b>Track Discipline</b> (Input to CHBS) (5.1).

### 3.2 Strategy B: Credit Bureau API Data Ingestion

This is the primary data source for **Credit History & Behavior Score (CHBS)** (P1). Collection is mandatory via API pull (Task 1.3.5) upon user consent.

#### Bureau API Specification: GET /credit-report

Field Name	Type	Data Requirement	Purpose in AI Model
credit_score_trad	Integer	The traditional CIBIL/Experian score.	Input to ACS Formula (P11), Eligibility Gate (P11).
total_outstanding_loan	Numeric	Total principal amount across all accounts.	Debt-to-Income (DTI) Ratio, LPE (5.4).
days_past_due_matrix	Array	List of DPD flags (30, 60, 90+) for all loans (24M history).	Core of Behavior Score (5.1).
credit_utilization_ratio	Percentage	Ratio of credit used to total limit across all cards/lines.	<b>High Utilization Risk flag</b> (P10, 5.1).
age_of_oldest_account	Integer (Months)	Time since the first credit account was opened.	Credit History Depth (5.1).
enquiry_count_6m	Integer	Number of hard inquiries in the last 6 months.	<b>Credit Hunger flag</b> (P10, 5.1).

### 3.3 Strategy C: User-Input Data & Guided Questionnaires

This data is collected via guided, high-context screens (Stage 3) to fill critical gaps not covered by APIs.

#### User-Input Specification: Guided Wizard

Question / Input Field	Interaction Type	Data Type	Purpose in AI Model
<b>Employment Type</b>	Multi-Select/Search	Enum (Gig/Salaried/Self-Employed/Student)	IVI Expectation Setting (5.2).
<b>Platform Earning Verification (Gig)</b>	Text Input / Platform Login (Optional)	String (Platform name)	Alternative Income Source Check (5.2).
<b>Secondary Liabilities (Unreported)</b>	Guided List	String/Numeric	Utility bills, credit card minimums, pending fines (LPE Input) (P2, P10).
<b>Asset Ownership: Property</b>	Yes/No → Upload Proof	Boolean/Document	Resilience Score (5.3).
<b>Asset Ownership: Insurance/FD</b>	Yes/No → Upload Proof	Boolean/Document	Resilience Score (5.3).
<b>Financial Literacy Self-Assessment</b>	3-Question Quiz (Internal)	Integer Score (1-10)	Behavior Flag for Counseling Path (6.3).

### 3.4 Strategy D: OCR & Document Processing (The Fallback)

For the 20% of users who cannot use the AA API, this system converts their manual uploads into the required structured data format (3.1).

#### OCR Extraction Specification: Required Fields (Mandatory for Compliance)

Document Type	Mandatory Fields for Extraction	OCR Tooling Required
<b>Bank Statements (PDF/Image)</b>	Account Holder Name, Statement Date Range, <b>All Transactions (Date, Amount, Narration)</b> .	Advanced Indian Fintech OCR (Perfios/Glib.ai-level) (P10).
<b>Loan Schedules (PDF/Image)</b>	Lender Name, Loan Amount, <b>Monthly EMI Value, Next Due Date</b> .	Advanced Table/Schema-less Parsing.
<b>Identity/KYC Proofs (PAN/Aadhaar)</b>	Name, Date of Birth, Address, Document ID.	Basic Image-to-Text OCR (for data verification).

### 3.5 Mandatory Data Matrix & Security Requirements

Data Set	Collection Method	Mandatory Field Count	Security Requirement
<b>KYC &amp; Identity</b>	User Input/OCR	4	<b>Encryption at Rest (AES-256)</b> , Masking in UAT/Staging.
<b>Credit Report</b>	Bureau API	6	<b>Tokenized Access</b> , Regulatory Audit Trail (P10).
<b>Cashflow (12M)</b>	AA API/OCR	5	<b>Anonymization for Model Training</b> , Consent Logging (P11).
<b>Assets &amp; Resilience</b>	User Input/OCR	3	<b>Two-Factor Verification</b> for sensitive uploads.

## IV. Screen-by-Screen UX & Content Flow (The Incentivized Journey)

This section details the exact user interface (UI) and content for the non-linear, 4-Stage Onboarding flow, ensuring a supportive and highly engaging experience (P12, P15).

### 4.1 Stage 1: The Trust & Consent Block (5 Minutes)

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
S1.1	<b>Welcome &amp; Value Proposition</b> <b>Goal:</b> Confirm the user is a target cohort and communicate the 360° benefit.	Single Button: "Start My Financial Profile"	<b>Headline:</b> "Move Beyond Your Credit Score. Get Rewarded for Your Resilience." <b>Body:</b> "If your score is below 750 or you are new to credit, we can help. Our AI builds a 360° profile to find credit you deserve."	S1.2

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
<b>S1.2</b>	<b>KYC &amp; Identity Verification</b> <b>Goal:</b> Collect mandatory KYC/AML data.	1. PAN/Aadhaar Upload (Image/PDF). 2. OTP Verification via Aadhaar-linked phone.	<b>Headline:</b> "First Step: The Trust Block." <b>Note:</b> "This is mandatory for all formal financial services in India."	S1.3
<b>S1.3</b>	<b>Data Consent &amp; Privacy</b> <b>Goal:</b> Secure legal consent for data sharing/processing and build trust.	Checkbox: "I consent to [BadeBhaiSaab] securely processing my financial data..." → Button: "I Understand & Consent (Earn ₹50 Bonus!)"	<b>Headline:</b> "Why We Need Your Full Picture." <b>Body:</b> "We use advanced encryption. Your data is never sold. We only use it to give you the best advice and 0% interest credit." (P11, P15)	Trigger ₹50 Mobile Recharge Voucher. S2.1

## 4.2 Stage 2: The Core Data Submission (Credit & Cashflow) (8-10 Minutes)

This is the most critical stage, where ~ 80% of the AI input data is collected.

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
<b>S2.1</b>	<b>The Profile Checklist &amp; Reward</b> <b>Preview Goal:</b> Show the user what's left and incentivize the most complex steps.	Progress Bar (30% Complete). Dynamic List with points: <b>Link Bank (500 pts), Link Credit (300 pts),</b> etc.	<b>Headline:</b> "Your Road to the Final Offer." <b>Tip:</b> "Linking your accounts via API is 5X faster and earns the most rewards!" (P10)	S2.2
<b>S2.2</b>	<b>Credit Report Integration</b> <b>Goal:</b> Get the official Credit History Data (Task 1.3.5).	<b>Option A (Preferred):</b> API Login (via partner or OTP). <b>Option B (Fallback):</b> Upload CIBIL/Experian PDF.	<b>Headline:</b> "Get Credit for Your Past Discipline." <b>Prompt:</b> "To understand your credit journey, we pull your official score."	S2.3 (API success → S2.4)

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
S2.3	<p><b>Cashflow Data: API Preference</b></p> <p><b>Goal:</b> Strongly encourage AA linking.</p>	<p><b>Option A (Preferred):</b> Button: "Link Bank Accounts Securely (500 Points!)" → AA Flow. <b>Option B (Fallback):</b> Button: "Upload Bank Statements (PDFs)"</p>	<p><b>Headline:</b> "Your Income &amp; Spending: The True Measure."</p> <p><b>Body:</b> "Traditional scores ignore your cashflow. We need 12-24 months of data to find your true potential." (P1, P11)</p>	S2.4
S2.4	<p><b>Manual Upload Wizard (If S2.3 Option B)</b></p> <p><b>Goal:</b> Reduce friction and capture clean OCR data.</p>	<p><b>Wizard:</b> 1. Select Bank Name. 2. Upload PDF. 3. Confirm Date Range. (Repeat for 2-3 accounts).</p>	<p><b>Headline:</b> "Uploading Documents (Automated Scan)." <b>Note:</b> "Our AI will read these documents for you. Please use clear PDF files only." (P10)</p>	S3.1

#### 4.3 Stage 3: Assets, Liabilities, & Behavior Questions (6-8 Minutes)

This stage collects high-context data that powers the **Resilience Score** and the **Liability Prioritization Engine**.

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
S3.1	<p><b>Financial Resilience: Assets Goal:</b> Collect non-traditional asset data (Task 1.4.3).</p>	<p><b>Guided Question Tree:</b></p> <ol style="list-style-type: none"> <li>"Do you have any Fixed Deposits, RDs, or Gold?" (Y/N).</li> <li>"Do you have any Life or Health Insurance policies?" (Y/N).</li> <li>"Do you own property?" (Y/N)</li> </ol> <p>→ If Yes, "Upload Proof (Optional, for higher limit)."</p>	<p><b>Headline:</b> "Show Us Your Safety Net (100 Bonus Points)."</p> <p><b>Tip:</b> "Assets like insurance show financial discipline and can unlock higher limits." (P15)</p>	S3.2

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
<b>S3.2</b>	<b>Secondary Liabilities &amp; Fines Goal:</b> Capture liabilities <i>not</i> reported on the credit bureau (P2, P10).	<b>Guided Input:</b> 1. Input: "Pending Electricity/Water Bills." 2. Input: "Unpaid Phone/Internet Bills." 3. Input: "Outstanding Credit Card Minimum Payments."	<b>Headline:</b> "Let's Prioritize the Small, Damaging Debts." <b>Note:</b> "Fines and late fees quickly damage your score. Tell us the amount so we can clear them first."	S3.3
<b>S3.3</b>	<b>Behavior &amp; Literacy Self-Assessment Goal:</b> Collect a subjective Behavior Flag for counseling/advisory.	<b>3-Question Quiz:</b> 1. "How often do you budget?" (Never/Monthly/Weekly). 2. "I know my exact credit card interest rate." (True/False). 3. "Do you frequently use savings for unexpected bills?" (Y/N).	<b>Headline:</b> "A Quick Pulse Check on Your Habits." <b>Note:</b> "There are no wrong answers! This helps our AI give you the right advice."	S4.1

#### 4.4 Stage 4: Profile Submission & Reward Allocation (1 Minute)

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
<b>S4.1</b>	<b>Final Submission &amp; Review Goal:</b> Confirm all data, start AI processing, and manage the user's wait time.	Button: "Submit My Full Profile & Get My Offer"	<b>Headline:</b> "Submission Complete. Your AI Profile is Building..." <b>Wait Screen:</b> Animated graphic showing data points converging into a 360° profile. (Max 10-second wait time).	S4.2 (Decision)

Screen ID	Screen Title & Goal	User Interaction	Key Content/Tone	Handoff/Next Step
<b>S4.2</b>	<b>Reward Allocation &amp; Next Step Goal:</b> Pay the final bonus and route the user to the appropriate outcome (A or B).	Dynamic Text → Button: "View My Personal Financial Report"	<b>Success Banner:</b> "Congratulations! You earned <b>1,200</b> Reward Points. Your initial offer is ready." <b>Dynamic Content:</b> <i>Content shifts based on the Eligibility Gate (VI).</i>	Outcome A → Membership Offer/PFR. Outcome B → Counseling Offer/PFR.

## V. The AI Engine: Alternative Credit Score (ACS) Logic Breakdown

The ACS is a proprietary, weighted score (hypothetical range 100-1000) that is the core output of Pillar 1. It is the sole determinant of credit size and membership tier.

### ACS Core Principle

The ACS integrates four key models to overcome the “Thin File” and “Income Volatility” challenges of the target market (P4, P6).

$$\text{ACS} = f(\text{CHBS}, \text{CSP}, \text{ARS}, \text{LPE})$$

### 5.1 Model 1: Credit History & Behavior Score (CHBS)

**Model Goal:** Quantify the user's reliability and past financial discipline (P10).

#### CHBS Sub-Score Formula & Inputs

CHBS Component	Data Source	Weight (%)	Risk Threshold (Flag)	Output Score Range
<b>Days Past Due (DPD)</b>	Bureau API (3.2)	40%	> <b>90DPD</b> in last 12M → <b>High Risk Flag</b>	100-300
<b>Credit Utilization</b>	Bureau API (3.2)	30%	> <b>75%</b> Utilization → <b>Behavior Warning</b>	100-300

CHBS Component	Data Source	Weight (%)	Risk Threshold (Flag)	Output Score Range
<b>Credit History Depth</b>	Bureau API (3.2)	15%	< 24 Months History → <b>Thin File Flag</b>	100-150
<b>Recent Enquiries</b>	Bureau API (3.2)	15%	> 4 Hard Inquiries in 6M → <b>Credit Hunger Flag</b>	100-150
<b>Total CHBS Score</b>	<b>100%</b>			<b>400-900</b>

## 5.2 Model 2: Cashflow & Spending Patterns (CSP)

**Model Goal:** Assess current income stability, *ability to pay*, and capacity for a short-term liability (P1, P10).

### CSP Sub-Score Formula & Inputs

CSP Component	Data Source	Calculation Logic	Risk Threshold (Flag)	Output Score Range
<b>Income Volatility Index (IVI)</b>	AA/OCR (3.1)	$StDev(\text{Monthly Income}) / \text{Avg}(\text{Monthly Income})$ . Volatility) → <b>Pilot Risk Flag</b>		
<b>Monthly Cashflow Surplus</b>	AA/OCR (3.1)	$\text{Avg}(\text{Income}) - \text{Avg}(\text{Essential Expenses}) / 300 \text{ Existing EMIs}$ . Avg. Monthly Penalty → <b>Repayment Strain (P11)</b>		
<b>Discretionary Spending Ratio</b>	AA/OCR (3.1)	$\frac{\text{Total Discretionary Spending}}{\text{Total Income}} * 100\% \rightarrow \text{Advisory Trigger (P1)}$		
<b>Low Savings/Balance Flag</b>	AA/OCR (3.1)	Count of days in 12M where balance was < 500.	> 50% of days → <b>Liquidity Crunch Flag (P1)</b>	100-150
<b>Total CSP Score</b>	<b>100%</b>			<b>400-900</b>

## 5.3 Model 3: Assets & Resilience Score (ARS)

**Model Goal:** Provide a compensating factor for credit-invisible users who demonstrate financial maturity through savings, investments, or assets (P1, P5).

### ARS Sub-Score Formula & Inputs

ARS Component	Data Source	Calculation Logic	Weight (%)	Output Score Range
<b>Savings/FD Track Record</b>	AA/OCR/User Input (3.1, 3.3)	<b>Count</b> of recurring FD/RD transactions (inflow > 6M).	40%	100-300
<b>Insurance Premium Payments</b>	AA/OCR/User Input (3.1, 3.3)	<b>Count</b> of recurring Life/Health premium debits (over 12M).	35%	100-300
<b>Property Ownership Flag</b>	User Input/Document (3.3)	<b>Verified</b> Flag for self-owned property (even if mortgaged).	25%	100-300
<b>Total ARS Score</b>	<b>100%</b>		<b>300-900</b>	

## 5.4 Model 4: Liability Prioritization Engine (LPE)

**Model Goal:** Identify what liability the interest-free credit should tackle first (P10). This is a *Prioritization Index* rather than a score.

### LPE Index & Output

LPE Component	Data Source	Weight Factor	Prioritization Logic	Output
<b>Credit Score Damage Index</b>	Bureau (3.2) & User Input (3.3)	<b>3X</b>	Highest weight to liabilities leading to > <b>30DPD</b> or collection calls (P12).	<b>Priority 1 Liability (P1)</b>
<b>Late Fee/Penalty Multiplier</b>	Bureau (3.2) & User Input (3.3)	<b>2X</b>	Prioritize liabilities with > <b>5%</b> late fee penalties (P2).	<b>Priority 2 Liability (P2)</b>
<b>Repayment Capacity Fit</b>	CSP (5.2)	<b>1X</b>	Liability amount must be $\leq$ <b>80%</b> of 90-day Cashflow Surplus (P12).	<b>Recommended Credit Allocation (₹5k - ₹20k) (P12)</b>

## 5.5 The Final Alternative Credit Score (ACS) Formula

The final ACS combines the three sub-scores using the strategic weighting model, where **Cash-flow** is the dominant factor for the target cohort.

### ACS Calculation (Weighted Average)

$$\text{ACS} = (\text{CHBS} \times 0.35) + (\text{CSP} \times 0.50) + (\text{ARS} \times 0.15)$$

Component	Strategic Weighting	Rationale
<b>Cashflow &amp; Spending Patterns (CSP)</b>	<b>50%</b>	Highest weight to counter <i>income volatility</i> and assess <i>current capacity</i> (P4).
<b>Credit History &amp; Behavior Score (CHBS)</b>	35%	Traditional risk is important but secondary to current cashflow health.
<b>Assets &amp; Resilience Score (ARS)</b>	15%	Compensates for thin files and credits non-traditional savings discipline (P6).

### ACS Action Matrix

ACS Range (Hypothetical)	Eligibility Path	Initial Credit Line (LPE Output)
< 400	<b>Counseling-First (High Risk) (VI.3)</b>	<b>0</b> (No credit extended) (P11)
400 - 550	<b>Eligible - Silver Tier (VI.2)</b>	<b>5,000 – 10,000</b> (Modest amount) (P12)
> 550	<b>Eligible - Gold Tier (VI.2)</b>	<b>10,000 – 20,000</b> (Higher amount) (P12)

## VI. The Eligibility Gate: Decision Matrix & Routing

This is the final logic step (Task 1.5.3) that routes the user to the appropriate program track based on the AI's final assessment.

### 6.1 The Three-Factor Eligibility Rule

The system does *not* rely on the ACS alone. A user must pass three simultaneous risk checks to qualify for credit.

Factor	AI Input Model	Threshold for Eligibility	Rationale
<b>Factor 1: Credit Potential</b>	Final ACS (5.5)	<b>ACS ≥ 400</b>	Core measure of overall creditworthiness and discipline.
<b>Factor 2: Repayment Strain</b>	CSP (5.2) → Surplus Metric	<b>Cashflow Surplus ≥ 2 × Avg. Monthly Penalty</b>	Must demonstrate <i>positive cashflow potential</i> (P11) for repayment.
<b>Factor 3: Behavioral Risk</b>	CHBS (5.1) → DPD Flag	<b>NO &gt; 90DPD in the last 6 months</b>	Filters out <i>chronic defaulters</i> who require intensive, non-credit-based counseling (P11).

$$\text{Membership Eligible} \iff (\text{Factor1 : True}) \wedge (\text{Factor2 : True}) \wedge (\text{Factor3 : True})$$

## 6.2 Outcome A: Membership-Eligible User Routing

**Targeted User:** Demonstrates a path to solvency; needs short-term relief and behavioral guidance.

Routing Action	System Trigger	Product Handoff (Pillar 2)
<b>Tiering Decision</b>	ACS score automatically assigns Silver/Gold tier (5.5).	<b>Fee Structure:</b> Present free/paid membership tiers (P11).
<b>Credit Offer Generation</b>	LPE output is used to generate the offer.	<b>90 – Day Interest – Free Credit Line</b> offered, linked to the P1 liability (P2, P12).
<b>PFR Presentation</b>	PFR (7.1) focuses on <i>potential</i> and <i>next steps</i> (P11).	<b>Conversion Logic:</b> Clearly explains <b>why</b> they qualify and <b>what improves</b> with membership (P11).

**Messaging Tone (PFR Summary Screen):** > “**Great News!** Based on your cashflow stability, you are **Eligible** for the BadeBhaiSaab program. We found a small gap in your savings, but your income is stable. Your **₹8,000 Interest-Free Credit Line** is ready to immediately clear your most damaging overdue fees and stop the collection calls.”

## 6.3 Outcome B: Counseling-First User Routing

**Targeted User:** High-risk, chronic defaulters, or users with unsustainably high Debt-to-Income (DTI) ratios. **NO Credit is Extended.**

Routing Action	System Trigger	Product Handoff (Pillar 3)
<b>Credit Lock</b>	The system <b>does not push membership offering (1:1/Small Group)</b> is offered as the <b>ONLY</b> immediate solution (P11).	<b>Human Financial Counseling (1:1/Small Group)</b> is offered as the <b>ONLY</b> immediate solution (P11).
<b>PFR Presentation</b>	PFR (7.1) focuses on <i>severity</i> and <i>urgent actions</i> .	<b>Content Flywheel:</b> Offer free access to the Education & Gamification modules (P11, P14).
<b>Re-evaluation Path</b>	System sets a <b>90-day cooling-off period</b> (P12).	<b>Action Plan:</b> User is prompted to complete specific modules and upload a 90-day new bank statement for re-evaluation (P12).

**Messaging Tone (PFR Summary Screen):** > “**We’re Here to Help.** Our analysis shows you currently have **Unsustainable Repayment Capacity**. We cannot offer you credit right

*now, as it would worsen your debt. However, you are **Eligible for FREE Human Financial Counseling** to restructure your debts and begin your path to eligibility. Your 90-Day Action Plan is ready.” (P11, P12)*

---

## VII. Post-Profiling Outputs & Conclusion

### 7.1 The Personal Financial Report (PFR) Detail

The PFR (Task 1.5.1) is the core user-facing artifact, translating AI complexity into simplicity.

PFR Section	AI Data Source	Visual Representation	Sample Output/Advice (P13)
<b>1. Overall Status</b>	ACS (5.5) / CHBS (5.1)	Score Dial / Status Color (Red/Amber/Green)	“Your score is 580 (Poor). You are flagged as <b>Medium Discipline</b> .”
<b>2. Urgent Liabilities</b>	LPE (5.4)	Bar Chart: <b>P1 &gt; P2 &gt; P3</b>	“You have <b>10,000</b> in pending penalties/EMIs. Your 60-day overdue EMI is the most damaging.” (P10)
<b>3. Cashflow Health</b>	CSP (5.2)	Line Graph: Income Fluctuation / Pie Chart: Spending Mix	“Your monthly cashflow surplus is only <b>500</b> (P11). Your IVI is High, suggesting irregular income.”
<b>4. Behavioral Insight</b>	CSP (5.2)	Highlighted Transaction	“You spent <b>2000</b> on dining out last month, which is <b>10%</b> of your income - consider cutting back to save for your EMI.” (P13)
<b>5. Next Steps/Call to Action</b>	Eligibility Gate (6.1)	Single Button	<b>If Eligible:</b> “Claim your Interest-Free Credit Offer.” <b>If Counseling:</b> “Book Your Free 1:1 Counseling Session.” (P11)

### 7.2 Final Summary and Key Performance Indicators (KPIs)

The execution of Pillar 1 must be rigorously measured against the KPIs defined in Section 1.2. The primary metric for all engineering and data science teams is the **Full Profile Conversion Rate ( $\geq 65\%$  target)**, as a failure here renders the AI model useless.

Key Milestone	Deliverable	Success Criteria	Timeframe
<b>Data Readiness</b>	All AA, Bureau, and OCR pipelines integrated and tested.	> <b>98%</b> OCR Accuracy; AA Adoption > <b>80%</b> .	Week 11
<b>ACS Validation</b>	Final ACS v1.0 Model Deployed in Production.	<b>ACS AUC &gt; 0.75</b> on Test Data.	Week 18
<b>Go-Live</b>	Full End-to-End Onboarding Funnel (S1.1 → S4.2) Deployed.	<b>Full Profile Conversion Rate ≥ 50%</b> (Initial).	Week 19

---

*This document contains proprietary information and is intended for internal use only. \*\*\**