

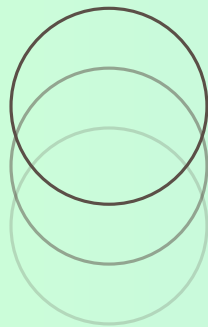
SME Loan Pre-Screen: The “Right-First-Time” Engine

**Subtitle: Automating Eligibility and Document
Validation to Reduce Application Bounce**

Context: Innovation Spirit 2025

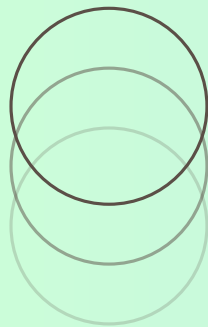
Name: Dimple Medhi Roll No: AEC.15

Bank: HDFC Bank (Context from Capstone Deck)



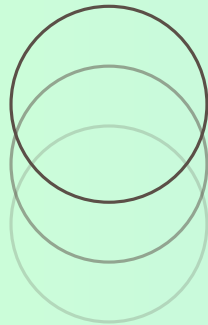
The Problem: Application Bounce & Operational Drag

Key Takeaway	Incomplete applications lead to slow processing, poor customer experience, and wasted branch/operational time.
Core Problem	SME customers submit loan applications with partial or missing documents (KYC, Income Proof, Business Proof).
Consequences	<ul style="list-style-type: none">• High Bounce Rate: Applications are rejected or put on hold.• Slow Processing: Delays the Time-to-Disbursement for the customer.• Operational Inefficiency: Branch personnel spend valuable time following up on missing papers.
Project Goal	Launch a "Right-First-Time" (RFT) program to optimize the pre-screening stage.
RFT Focus Areas	<ul style="list-style-type: none">• Clearer loan application requirements.• Simple, dynamic document checklist.• Clearer eligibility parameters.• Optimizing branch-time utilization.



Current State Process and Challenges

Current Screening Logic	Challenges
Step 1: Check KYC	If any KYC document is missing, the application is automatically rejected.
Step 2: Check Income Proof	If KYC is complete but Business Proof is missing, and Income Proof is submitted, application proceeds for Conditional Approval.
Step 3: Missing Income Proof	If KYC is complete, Business Proof is submitted, but Income Proof is missing, the application is put on hold.
Final Status	An application is marked "Ready for Appraisal" only if all three document types (KYC, Income Proof, and Business Proof) are submitted and valid.

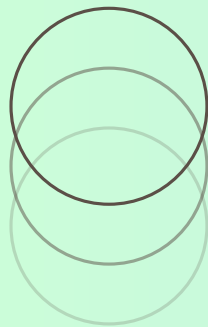


Proposed Solution: The RFT PRE-SCREENING ENGINE

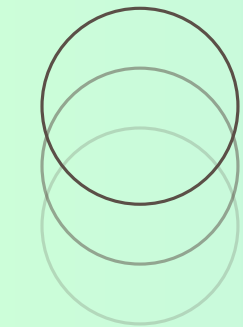
The Solution: Implement a highly automated, digital, and rule-based pre-screening system integrated into the application journey.

SYSTEM COMPONENT	FUNCTIONALITY
Digital Intake & Checklist	Dynamic, conditional document checklist based on the Applicant's Industry, Loan Amount, and SME Category (Micro, Small, Medium). Applicants see only the documents relevant to them.
Real Time Validation	OCR and Data Extraction for uploaded documents. Cross-validation checks (e.g., PAN name matches Aadhar name, GSTIN matches Business Proof). Checks data integrity in real-time.
Rule Engine(The Core)	A decision engine that runs the bank's clear eligibility parameters (e.g., Credit Score, Vintage, Turnover, SME Classification criteria) against the applicant's data before submission is finalized.
Instant Feedback Loop	Provides immediate, clear reasons for "Soft-Reject" or "Action Required," instructing the customer exactly what needs to be fixed/ added before submission.

Solution Deep Dive: Dynamic Pre-Screening Logic

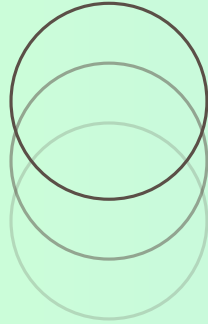


INPUT CRITERIA	EXAMPLES RULES BASESED ON DOCUMENTS & CLASSIFICATION
KYC check(Critical)	If KYC Submitted ='No', Immediate Soft-Reject. Must upload (PAN of Business/Owner, Aadhar, etc.).
Income Documents (High Priority)	If Loan Amount Requested > Rs X AND Income Document Submitted = 'No', status is Action Required (On Hold). Required: 3 years P&L/ Balance Sheet/ITR.
Business Proof (Essential)	If Applicant's Category = 'Medium' or 'Large' AND Business Proof Submitted = 'No', status is Action Required (Conditional Approval).
Eligibility Check	If Applicant's Industry is "High Risk" OR Credit Score < 700 (Hypothetical), Immediate Soft-Reject with reason: "Does not meet minimum eligibility criteria."



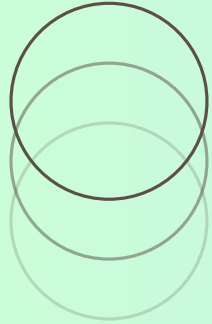
Solution Deep Dive: Dynamic Pre-Screening Logic

OUTPUT STATUS	DEFINITION
Ready for Appraisal (Green)	All required documents are submitted, validated, and meet pre-screening eligibility criteria. (RFT Achieved).
Action Required	If Loan Amount Requested > Rs X AND Income Document Submitted = 'No', status is Action Required (On Hold). Required: 3 years P&L/ Balance Sheet /ITR.
Soft Reject (Red)	Missing non-critical documents (e.g., latest bank statement) or minor data mismatch. Application saved, but cannot proceed until corrected.
Eligibility Check	Missing critical documents (KYC) or failing key eligibility rules



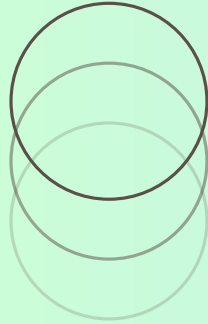
Data Analysis & Key Insights

METRIC	CURRENT STATE(BASED ON DATA ANALYSIS)
Total Applications	235 (Total rows in the dataset)
Right-First-Time (RFT) Rate	% of applications with all three documents ('Yes' for Income, KYC, Business Proof)
Top Bounce Reason 1	% of applications missing Income Documents
Top Bounce Reason 2	% of applications missing Business Proof



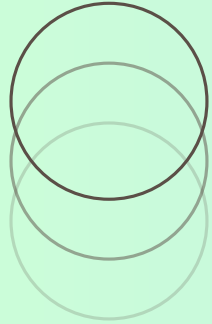
Expected Impact & Value Proposition

AREA	CURRENT STATE
Application Bounce Rate	High (Due to missing documents/ineligibility)
Branch/Operational Time	Significant time spent on manual screening and follow-up.
Time-to-Disbursement	Slow (Due to back-and-forth document submission)
Top Bounce Reason 2	Varies



Implementation Roadmap & Next Steps

PHASE	TIMELINE	KEY ACTIVITIES
Phase 1: Proof of Concept (POC)	1 Month	Define and code the rule engine based on SME Classification and Document Checklists. Run the provided dataset through the engine to validate RFT categorization.
Phase 2: Pilot Program	2 Months	Launch the RFT Pre-Screening Engine on a small segment (e.g., SME Loan applications < Rs 25 Lakhs or a single region). Gather feedback on customer drop-off points.
Phase 3: Full Rollout & Optimization	3+ Months	Full integration into the main loan origination platform. Expand rule set to include more complex eligibility criteria (e.g., industry-specific documents). Monitor RFT rate and branch time utilization.



Conclusion

SUMMARY

The 'Right-First-Time' Problem Solved Pre-Screening Engine is a strategic investment in efficiency and customer experience.

Problem Solved

Eliminates application bounce and manual screening effort by ensuring complete, compliant applications enter the appraisal process.