CASE 1 – Only Bank data

CASE 2 – Only Bank and SAP Data --------------------------------------------------------------------------------------------------------------

**1. Anomaly Detection** - Works in both cases

* **Your Data**: Transaction amounts, descriptions, timestamps, vendor info
* **Implementation**: Flag unusual amounts, vendor patterns, timing
* **Example**: ₹20L payment at 2AM for rarely used vendor

**2. Cash Flow Forecasting** - Works in Case 1, enhanced in Case 2

* **Your Data**: Historical transaction patterns, amounts, dates
* **Implementation**: Time-series analysis of inflows/outflows
* **Example**: Predict ₹50L outflow in next 2 days

**3. Duplicate Payment Detection** - Works in both cases

* **Your Data**: Vendor names, amounts, descriptions, dates
* **Implementation**: Fuzzy matching on vendor + amount + date proximity
* **Example**: ₹10,000 to Vendor Y appears twice

**4. System Load Forecast** - Works in both cases

* **Your Data**: Upload patterns, processing times, queue lengths
* **Implementation**: Track file upload frequency and processing times
* **Example**: 1000 files queued → show "Expect delay"

**5. User Behavior Modeling** - Works in both cases

* **Your Data**: Upload patterns, file sizes, processing times
* **Implementation**: Track user activity patterns and flag anomalies
* **Example**: User who uploads 5 files/day suddenly uploads 100

**6. Auto-Prioritize Payments** - Works in both cases

* **Your Data**: Amount, vendor category, urgency indicators
* **Implementation**: Priority scoring based on amount, vendor importance
* **Example**: Large vendor or urgent SAP file goes first

**7. Bank Downtime Prediction** - Works in both cases

* **Your Data**: Upload success/failure patterns, error logs
* **Implementation**: Track failed uploads and error patterns
* **Example**: Axis Bank uploads failed 5 times today → warn user

**8. Compliance Violation Prediction** - Works better with Case 2

* **Your Data**: Amount limits, vendor categories, transaction types
* **Implementation**: Check against configured limits and rules
* **Example**: ₹20L exceeds internal limit → alert user

**🔄 NEEDS ENHANCEMENT (5 features)**

**9. Payment Failure Prediction** - Needs Case 2 SAP data

* **Current Gap**: No SAP response tracking
* **Enhancement**: Add SAP response logging, failure reason tracking
* **Example**: Track rejection reasons, format issues

**10. Payment Delay Prediction** - Needs Case 2 SAP timing data

* **Current Gap**: No SAP processing time tracking
* **Enhancement**: Add upload-to-SAP-response timing
* **Example**: Vendor A usually delayed by 30 mins

**11. Transaction Time Estimation** - Needs Case 2 timing data

* **Current Gap**: No end-to-end processing time tracking
* **Enhancement**: Add timestamp tracking for each processing stage
* **Example**: ICICI bank takes 5 mins, HDFC takes 15 mins

**12. Vendor Risk Scoring** - Needs Case 2 failure history

* **Current Gap**: No vendor failure/rejection tracking
* **Enhancement**: Track vendor success/failure rates over time
* **Example**: Vendor X has 60% rejection rate → mark "High Risk"

**13. Best Payment Time Suggestion** - Needs Case 2 timing patterns

* **Current Gap**: No time-based success rate analysis
* **Enhancement**: Track success rates by hour/day
* **Example**: "Likely wrong IFSC or missing field"