The Future of API-Based Banking in India

Connecting banking services to enterprise workflows

Executive Summary

An enterprise can accept digital payments and still struggle to establish who paid, which invoice is cleared, or whether a supplier transfer succeeded. When banking activity and business records remain separate, employees rebuild the connection through portal downloads, spreadsheets and phone calls. Growth multiplies that work.

Application programming interfaces, or APIs, allow authorised software systems to exchange defined requests and responses. In banking, they can connect approved business workflows to services such as account information, collections, payment initiation and transaction status. The practical opportunity is to carry a business reference through to the bank evidence and the accounting record.

The future of API based banking will be judged by whether businesses can trust and act on the result of a transaction. Faster submission has limited value when a pending payment is mistaken for a failure or an unmatched receipt is treated as available cash.

This paper examines the Indian ecosystem, the enterprise use cases worth prioritising, and the controls required for dependable delivery. It distinguishes direct bank APIs from payment infrastructure, consented financial information sharing and lending interfaces. It then sets out a phased approach to adoption, with measurable operational outcomes.

The Decision for Leadership

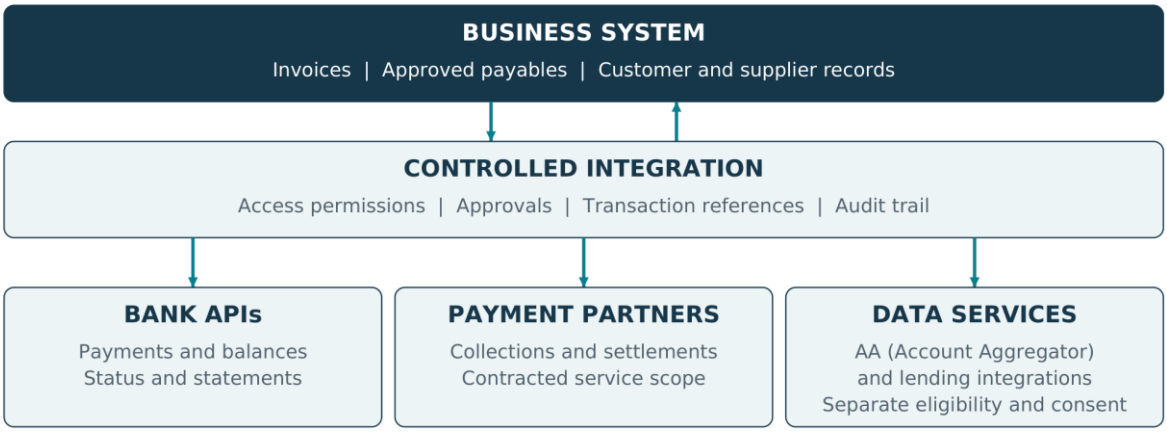
Begin with one recurring banking workflow that creates avoidable manual work or uncertainty. Confirm bank access, data quality, approval responsibilities and exception handling before extending automation. Measure completed, reconciled business transactions alongside technical availability.

A3M Labs brings the ERP, CRM, payment integration and settlement reconciliation perspective developed in its existing enterprise work. This paper proposes how that perspective can support API banking adoption.

Scope: Enterprise banking integration in India. Outlook statements represent A3M Labs' analysis and do not predict regulatory approval or guarantee commercial results. Specific bank connections and service coverage require validation for each engagement. Sources reviewed on 28 October 2026.

01 Understanding the Indian Ecosystem

API banking is a method of connecting services. It does not confer permission to perform every banking activity, and an accessible developer portal does not establish production eligibility. Banks define onboarding, security, supported services and contractual access. ICICI Bank, for example, publishes ERP payment and status APIs, while its developer portal makes production access subject to business approvals and agreements.



Permissions and returned evidence determine what the business may record.

Table 1. Ecosystem Components

Component	Primary role	Boundary to preserve
Direct bank APIs	Approved account services and banking transactions	Coverage and permissions vary by bank. Production access requires contractual agreements.
UPI	NPCI instant payment infrastructure	UPI participation is distinct from unrestricted bank API access.
Account Aggregator	Consented sharing of financial information	An AA does not initiate customer payments. FIU status requires a financial RE.
Unified Lending Interface	Standardised connections between lenders and data services	Access to data does not guarantee a loan. Lenders retain responsibility for credit decisions.

Permission to read financial information is different from authority to move money. Keep those rights separate in system design, customer journeys and contracts. An ordinary ERP provider should not assume it qualifies as an Account Aggregator Financial Information User; the RBI definition requires a financially regulated entity.

02 Where Enterprises Gain Practical Value

Collections that retain the invoice reference

A distributor receiving money from multiple dealers needs more than an incoming credit alert. Its system must connect the receipt to the correct customer and invoice. Where a bank or payment partner supports suitable references, the integration can propose a match, leave partial payments open and route unidentified credits for review. Gateway settlements also need gross amounts, fees, refunds and net credits to agree.

Supplier payments with controlled approval

An approved payable can become a payment instruction without retyping beneficiary details into a separate portal. The workflow should preserve the invoice, approved beneficiary, payment reference and bank response. Beneficiary changes need independent review, and the person preparing a payment should not be able to bypass the authorised release process.

Cash visibility with an explicit timestamp

Account information services can bring supported balances and statements into a finance dashboard. Show the source account, retrieval time and any unavailable feeds. A fresh dashboard is useful only when its coverage is clear; a stale balance must not silently appear as current. Separate the bank balance from committed outflows and unmatched receipts when assessing spendable cash.

Credit journeys with better information

Reserve Bank Innovation Hub (RBIH) describes the Unified Lending Interface as a standardised API framework connecting lenders and data service providers. It can support the information exchange needed in lending journeys. A business platform can prepare accurate invoices, receivables and financial records for an eligible lender, while maintaining the required consent and authorisation. The lender remains responsible for its credit decision.

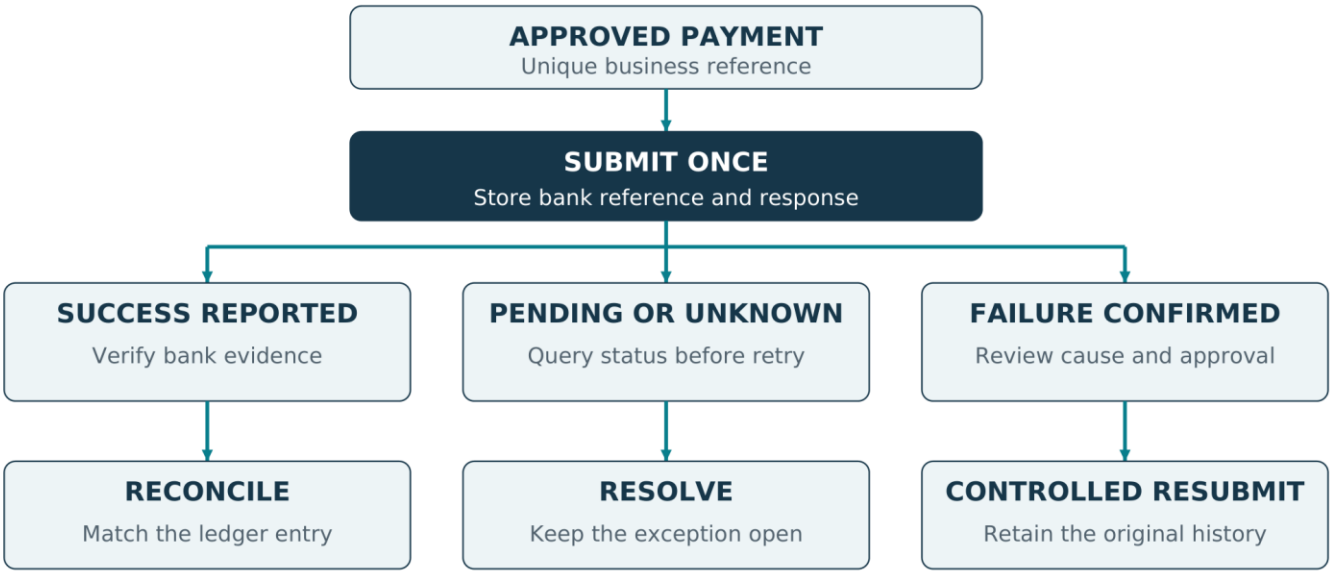
A useful integration closes a business question: which invoice is paid, which supplier transfer is final, or which balance can be relied upon. Select the first use case by the value of answering that question, the quality of available data and the effort needed to resolve exceptions.

Illustrative operating scenario

Consider an automotive dealer whose vehicle sale, workshop receipt and parts purchase sit in one ERP. A collection reference can link an incoming credit to a service invoice, while an approved parts payable retains its bank status. This is a proposed workflow, not a reported A3M client result. It depends on the services offered by the selected bank and payment partners.

03 Designing for Uncertain Payment Outcomes

Payment systems must distinguish a request being received from money reaching the intended destination. A network timeout may leave the outcome unknown. An integration should preserve that uncertainty, retrieve the bank status and escalate unresolved cases. Repeating a transfer without checking the original can create a second payment.



A timeout is an unknown outcome until authoritative evidence resolves it. Use the bank's supported duplicate-prevention mechanism where available. Otherwise, maintain an internal submission register and block automatic resubmission until the original outcome has been checked.

Return evidence to the business record

Authenticate callbacks, which are notifications sent by a provider, using the provider's supported verification method. Process repeated or delayed events safely, and use status enquiries or statement checks when notifications are missing. Preserve internal and bank references, timestamps and the history of status changes.

Reconciliation should explain the movement between the payment instruction, bank record and ledger. Reversals, charges, partial receipts and unidentified credits belong in an exception queue with a named owner and an ageing view. If the bank service is unavailable, pause unsafe actions and use an agreed fallback that records any manual payments before automated processing resumes.

04 Security, Consent and Accountability

Confirm the applicable banking framework

RBI's Commercial Banks Digital Banking Channels Authorisation Directions, 2025 took effect on 1 January 2026. They distinguish view only and transactional facilities and address channel governance, customer consent and risk controls. Their defined scope is not every category of Indian bank. Confirm the entity, service and applicable directions before approving a deployment.

Keep responsibility visible across providers

Under RBI's Commercial Banks Managing Risks in Outsourcing Directions, 2025, outsourcing does not reduce the bank's obligations or the ultimate responsibility of its board and senior management. For an integration, document the bank's service commitments, the enterprise's approval duties and the technology provider's operating responsibilities. Agree incident escalation, evidence access, subcontractor controls and an exit process where relevant.

Make consent specific and enforceable

RBI's 2025 Account Aggregator Directions require explicit consent and provide for its revocation. They restrict information use to the consent terms, prohibit AAs from supporting customer transactions, and prohibit requesting or storing customer authentication credentials. A consent record should make the information, recipient, purpose and validity understandable. Payment mandates and corporate signing authority require their own controls.

Protect access and sensitive records

For the proposed architecture, assign separate permissions for balance access, beneficiary maintenance and payment release. Store service credentials in a controlled secrets facility, rotate them, and separate testing from production. Apply the bank's required encryption and authentication methods. Limit transaction amounts and frequency, monitor unusual activity, and protect logs from unauthorised changes or disclosure.

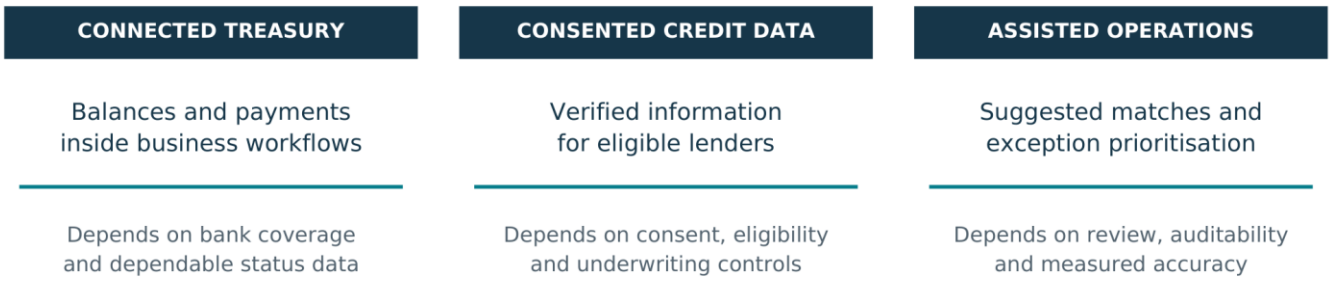
An API key must never become unrestricted authority over customer data or enterprise money. Mask sensitive information in operational logs and limit retention to justified business and legal needs. Check applicable privacy, payment-data, KYC and contractual requirements for the actual data flow; implementation choices should follow that assessment.

Test operational recovery

Before launch, test revoked access, expired credentials, missing callbacks, bank downtime, duplicate events and restoration from backup. Agree who can suspend payments and who can approve resumption. Customer complaints and unresolved transactions need a visible support route throughout an outage.

05 The Next Phase of API-Based Banking

A3M Labs expects adoption to deepen where banking actions can be completed inside the software businesses already use. This is an outlook based on the published integration capabilities and infrastructure described in this paper. Adoption will vary with bank readiness, commercial terms, enterprise data quality and operating capacity.



Banking becomes part of the operating workflow

Treasury and finance teams can increasingly work from shared business records, with supported banking services connected behind them. Multi-bank designs should use a common internal transaction model while retaining each bank's references, status meanings and service limitations. Standardisation inside the enterprise can reduce repeated work even when external APIs differ.

Lending connections require disciplined data use

Account Aggregator and the Unified Lending Interface (ULI) serve different functions, but both make the quality and permitted use of information central to a lending journey. For enterprises, maintaining accurate financial records is a practical preparation step. For providers, expansion should follow demonstrated consent controls and eligibility, with clear explanations when a service or data source is unavailable.

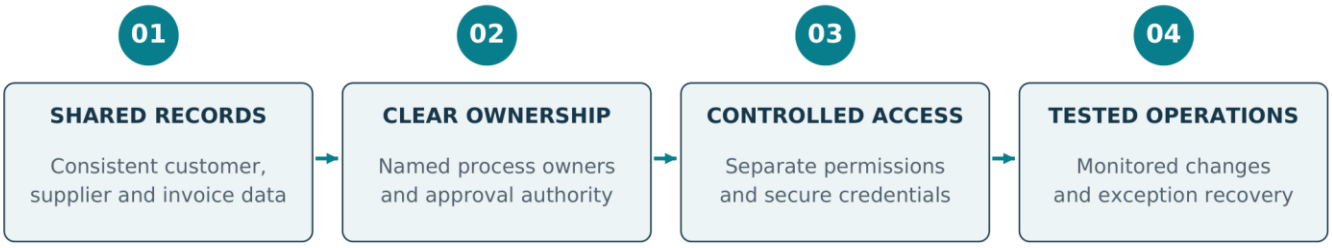
Automation assists finance teams under supervision

Rules and, where suitable, machine learning can suggest invoice matches or prioritise unusual transactions. Evaluate these tools against real exceptions and a labelled baseline. Confidence scores should guide review rather than silently authorise money movement. Human approval remains necessary where policy, uncertainty or transaction risk requires it.

Sustainable adoption depends on explainable records, reliable exception handling and clear authority to act. Buying more endpoints will not correct poor opening balances, weak supplier records or an approval process that staff routinely bypass.

06 How Businesses Should Restructure to Become More API-Friendly

API adoption requires changes to how a business maintains records, approves work and resolves problems. Finance, operations and IT should design one shared workflow before connecting it to a bank. **Automating an unclear process can spread its errors faster.**



Standardise records and simplify workflows

Maintain a trusted master record for customers, suppliers and bank details. Use unique identifiers for invoices and payments, consistent field definitions and checks for missing or duplicate entries. Replace repeated spreadsheet handoffs with a documented workflow, while retaining necessary financial approvals.

Assign business ownership and access rights

Name a process owner across finance, operations and IT. Define who creates a payment, approves release, changes a beneficiary and resolves an unmatched transaction. Train teams to interpret pending outcomes and follow escalation procedures. Review permissions when employees or suppliers change responsibilities.

Build a controlled integration capability

Keep bank connections in a managed integration layer rather than scattering credentials and custom code across departments. Document interfaces, status meanings and data ownership. Test changes outside production, monitor failures and agree a rollback process. Include support coverage, incident responsibilities and data export arrangements in provider contracts.

Measure readiness through a completed workflow, including its exceptions. Start with a limited pilot and expand after records reconcile, staff can resolve failures and the business has demonstrated recovery.

07 Implementation Considerations and Measurement

Moving from a successful pilot to sustained adoption requires alignment between bank capabilities, enterprise data and operating controls. For leadership, the implementation decision should rest on three questions: what services are available under agreed terms, whether the organisation's records can support reliable automation, and how business outcomes will be measured.

A. Bank Coverage and Commercial Readiness

Production API access depends on each bank's onboarding requirements, security reviews and contractual agreements. Payment initiation, status enquiries, statement feeds and reference-field support may differ across institutions. A multi-bank programme should therefore accommodate staggered availability and preserve bank-specific status mappings within a standardised internal transaction model.

Before committing to the implementation scope:

- **Confirm service coverage:** Obtain written confirmation of the service catalogue, supported reference fields and the meaning of transaction statuses before finalising the design.
- **Plan realistic timelines:** Allow for bank-specific testing cycles, commercial negotiations and production approvals.
- **Validate production readiness:** Treat developer-portal access as an initial step; confirm the permissions and agreements required to operate the intended services in production.

B. Data Quality as an Operating Prerequisite

The reliability of an integration depends on the records it connects. Incomplete master data, duplicate supplier records and missing unique invoice identifiers weaken automated matching and increase the workload of exception handling. Connecting a workflow should follow a deliberate review of the data on which its decisions depend.

To establish a dependable foundation:

- **Create a trusted baseline:** Clean and validate customer, supplier, bank and invoice records before connecting the first workflow.
- **Assign clear ownership:** Define who maintains each critical field and how differences between ERP records and bank information will be reconciled.
- **Include data quality in pilot acceptance:** Assess completeness, uniqueness and timeliness alongside technical performance.

C. Business Outcomes and Control Assurance

Technical availability demonstrates that a connection works. Leadership also needs evidence that the connected workflow improves operations while maintaining control over money, information and unresolved transactions. Agree the baseline, measurement method and acceptance criteria before the pilot begins.

Track the following outcomes:

- **Collection matching:** The percentage of collections automatically matched to invoices, together with the volume and ageing of unmatched collections.
- **Payment integrity:** The proportion of supplier payments completed with a full audit trail, alongside any unauthorised releases, with a target of zero.
- **Reconciliation efficiency:** The reduction in manual reconciliation effort against the agreed baseline.
- **Exception management:** The volume and age of unresolved exceptions, together with the mean time to resolution.
- **Recovery capability:** Successful completion of drills covering credential revocation, bank downtime and callback failures, with identified weaknesses addressed before expansion.

Expansion should follow demonstrated operational readiness. A wider rollout is justified when records reconcile, responsibilities are clear, exceptions remain manageable and recovery procedures have been tested. These results give leadership a practical basis for deciding when to extend the integration to additional banks, workflows or business units.

A Phased Path with A3M Labs

A3M Labs proposes a discovery and pilot around one workflow. Confirm bank coverage, plan controls, implement and verify outcomes before expansion. Measure reconciliation, unresolved transactions and manual effort against an agreed baseline. Begin a discovery conversation at www.a3mlabs.com.