

Automating BOT For Tax Compliance For Invoice Workflow Automation

Sector: Travel & Logistics

Solution: Travel division of a leading Indian Conglomerate

Deployment: On-premise (Standalone Systems)

1. Assessment & Vision Setting

Current State Analysis

The client's travel division and vendor finance operations involved checking travel invoices, validating the Tax data, and formatting data for ERP upload—resulting in high compliance risk.

☑ Defined Objectives

- Automate data validation and extraction from multiple file types
- Improve turnaround time and reduce manual errors
- Enable easy and automated ingestion of data into the ERP system

Stakeholder Alignment

Collaborated across departments—Travel Desk, Finance, and IT—to align functional validation rules and streamline the handover to ERP.

2. Process Reengineering

Mapped Existing Workflows

- ☑ Manual email reading, different file type comparison, and Tax mandate validation
- ☑ Spreadsheet macros used for formatting ERP upload files

Redundancy Elimination

- ☑ Automated document categorisation and data mapping
- ☑ Reduced dependency on human review except for flagged edge cases

Standardised Procedures

Documented rules for Tax validation, Employee/Vendor code association, Commodity Code checks, and invoice total matching.



3. Technology Transformation

Standalone Deployment

Built secure, self-contained bots to run on local infrastructure without external connectivity, ensuring data confidentiality.

✓ OCR and PDF Parsing

- Used PyPDF2 for text extraction from invoices and challans
- Extracted Tax details, invoice metadata, and cost allocation info

✓ AI/ML and Rule-based Validation

- Auto-matched data across PDFs and other file types
- Categorised files as Complete, Partial, or Failed based on field-level success

5. Data & Insights Activation

Excel-Driven Dashboards

Generated ready-to-ingest Excel outputs for ERP uploads with fields like:

- Tax ID (Vendor/Company)
- Commodity Codes
- Taxable Amounts
- Payable Amounts
- Document Types and Cost Codes

Error Logging & Audits

Used structured logs to flag errors like missing fields or unexpected formats—helping teams trace issues quickly.

7. Continuous Improvement

Feedback Loop Integration

Improved extraction rules and added new Tax fields based on actual feedback over several processing cycles.

Scalability Enabled

Built with modular components allowing:

- Versioning of logic per invoice format
- Expansion to new departments without major rework

4. Automation & Self-Service

Email Integration

Automated reading of travel invoices from a dedicated inbox, downloading attachments, and beginning validation immediately.

Smart File Handling

- ✓ Extracted data from travel and vendor invoices
- ✓ Pulled supporting metadata from internal master files (Employee & Vendor)

Self-Healing Logic

Flagged inconsistent or missing Tax numbers and routed them to specific folders for manual intervention.

6. Governance & Compliance

Role-Based Access & Security

All processes ran in secure folders with permissioned access and no cloud data flow.

Audit Trail Ready

Maintained logs of validations, flagged cases, and categorised document movement (Completed, Partial, Failed).

Outcome

- ✓ **80% Reduction** in manual data entry effort
- ✓ **Error rates dropped by 70%** in invoice processing
- ✓ **Near-instant generation** of ERP-upload-ready Excel formats
- ✓ **Improved audit readiness** and VAT compliance across operations