



CODECELL-CMPN,VESIT

SYRUS HACKATHON 2025

Category Code: C6

Problem Statement Title: Cross-Border Trade & International Finance

Team Name: CodeMongers

Institute Name: Vivekanand Education Society's Institute of Technology



Idea / Approach details (& implemented features)

Problem:

Global trade is slow, costly, and risky due to:

1. Manual invoice processing delays shipments.
2. Unclear tariffs & duties lead to unexpected costs.
3. No structured supplier risk assessment.
4. FX volatility causes financial instability.
5. Compliance verification is complex and time-consuming.

Our Approach: An **AI-powered Trade Risk & Financing Profiler** Automates document analysis, risk assessment, and supplier selection to streamline global trade.

Data Extraction – AI reads invoices, extracts product details & pricing.

Supplier Matching – Identifies suppliers based on cost, risk & compliance.

Tariff & Duty Analysis – Calculates total landed costs for each supplier's country.

Risk Assessment – AI evaluates supplier risks (FX volatility, trade barriers).

Automated Compliance Checks – Screens suppliers against global sanction lists.

Smart Procurement Decisioning – Recommends the best supplier & trade route.

Key Features:

1. AI Invoice Extraction
2. Supplier Risk Analysis
3. Tariff & Duty Analysis
4. Procurement Optimization
5. Compliance Screening
6. FX Risk Forecasting



Innovation (Showstopper)

What Makes This a Game-Changer?

Instant AI-Powered Trade Analysis

Before: 61+ hours per shipment wasted on manual compliance.

Now: AI automation reduces this to just minutes.

Cost-Effective Decision-Making

Before: Trade costs reached 4% of transaction value in developing countries.

Now: AI-driven supplier and route optimization cuts costs

Risk-Free International Trade

Before: Businesses suffered 10% annual profit losses due to FX volatility.

Now: AI forecasts trends and suggests hedging strategies, eliminating unnecessary losses.

Automated Global Supplier Matching

Before: 50% of businesses lacked data-driven trade insights.

Now: AI matches suppliers instantly and provides real-time procurement plans



Tech Stack

Backend:



Frontend:



APIs:



Moov.io watchman / open sanctions (Facilitates sanctions screening and compliance checks against restricted lists, reducing financial and legal risks.)

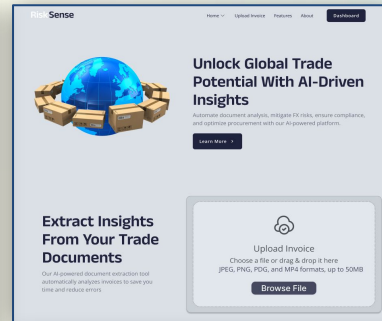
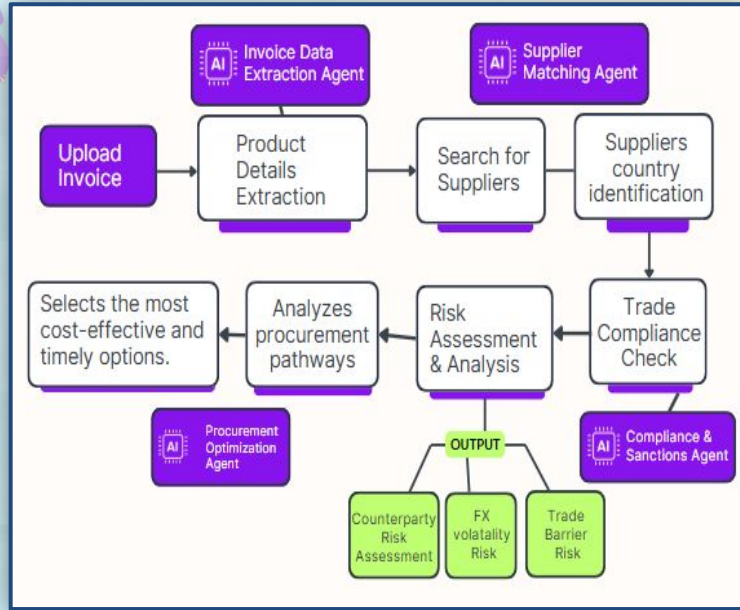
AI integration:



UPTIQ AI console



Implementation/Prototype/Use Case Diagram (screenshots)



Procurement

Supplier Recommendations | Alternative Routes | Procurement Plans

Alternative Trade Routes

AI-suggested alternative routes to optimize costs and reduce risks

| Route | Transit Time | Cost | Risk Level | CO2 Emissions | Actions |
|--------------------------|--------------|-------|------------|---------------|------------------------------|
| China → USA (Direct) | 18-22 days | \$55 | Medium | High | View Details |
| China → Vietnam → USA | 24-28 days | \$5 | Low | Medium | View Details |
| EU → USA (Direct) | 12-15 days | \$555 | Low | Medium | View Details |
| India → Middle East → EU | 20-25 days | \$5 | Medium | Medium-High | View Details |
| Japan → Mexico → USA | 22-26 days | \$55 | Low | Medium | View Details |

Counterparty Risk

Comprehensive risk analysis of your trading partners

| Counterparty | Location | Risk Score | Risk Level | Last Updated |
|-----------------------|----------------|------------|------------|--------------|
| Global Traders Ltd | Singapore | 32 | Low | 2 days ago |
| Eastern Imports Co. | China | 68 | Medium | 5 days ago |
| Atlantic Shipping | United Kingdom | 45 | Low | 1 week ago |
| Mediterranean Exports | Brazil | 87 | High | 3 days ago |
| Northern Supplies | Canada | 29 | Low | Today |

Partner Compliance Status

Monitor compliance status of all your trading partners

Search partners...

| Partner | Location | Status | Last Checked | Issues | Actions |
|-----------------------|----------------|---------------|--------------|--------------------------|------------------------------|
| Global Traders Ltd | Singapore | Compliant | 2 days ago | None | View Details |
| Eastern Imports Co. | China | Pending | 5 days ago | Documentation incomplete | View Details |
| Atlantic Shipping | United Kingdom | Compliant | 1 week ago | None | View Details |
| Mediterranean Exports | Brazil | Non-Compliant | 3 days ago | Sanctions list match | View Details |
| Northern Supplies | Canada | Compliant | Today | None | View Details |

In case of Uptiq category - Your Uptiq Agent (explain in detail)

| INVOICE DATA EXTRACTION AGENT | SUPPLIER MATCHING AGENT | COMPLIANCE & SANCTION AGENT | PROCUREMENT OPTIMIZATION AGENT |
|---|---|--|--|
| Extract Text From Invoices ↓ Format Extracted Data ↓ Validate Extracted Data | Query Supplier Databases ↓ Evaluate Supplier Options ↓ Identify Supplier Location ↓ Store Supplier Data | Verify Against Sanction Lists ↓ Ensure Regulatory Compliance ↓ Assess Supplier Risk | Analyze cost saving opportunities ↓ Optimize Procurement Agreements ↓ Monitor Supplier Performance |



Future Objectives

Future Scope



Implement **blockchain-based smart contracts** to ensure transparency and security in supplier agreements and trade transactions.



Use **Natural Language Processing (NLP) & Legal AI** to detect risks in contracts before execution



Use **machine learning** for Predictive Supply Chain Optimization & Risk Forecasting

