PROBLEM STATEMENT • THE REAL-WORLD B2C VULNERABILITY

The ৳1,000+ Crore Consumer Trust Deficit in Bangladesh

Every single day, students, young professionals, and families lose hard-earned money to predatory F-Commerce advance fee demands, task syndicates, and phishing scams without any proactive defense.

80%+

INFORMAL TRANSACTIONS

The Peer-to-Peer Blindspot

The majority of second-hand and social commerce transactions in Bangladesh occur over Facebook Messenger and unverified personal bKash/Nagad accounts with zero escrow protection.

Target: University Youth & First-Time Digital Buyers

৳500

ADVANCE DELIVERY EXTORTION

The Disposable Page Trap

Rogue Facebook pages offer 70% discounts, collect ৳200–৳500 upfront for "courier delivery charge," block the consumer instantly, and clone a new disposable page the very next morning.

Impact: High Volume, Low Individual Value (Never Reported)

100%

REACTIVE REGULATORY GAP

Zero Pre-Transfer Defense

The Directorate of National Consumer Rights Protection (DNCRP / 16121) handles complaints only *after* money has been stolen. Citizens had zero software-level defense before sending money.

Statutory Basis: Consumer Rights Protection Act 2009

PROPOSED SOLUTION • PROACTIVE TRUST INTELLIGENCE

ThokboNa AI: Verify Before You Pay a Single Taka

An autonomous, B2C AI platform shifting consumer protection from reactive bureaucratic complaints to real-time pre-transaction fraud interception.

PILLAR 1

G2-Style Universal Inspector

Paste any Facebook deal text, payment phone number, or upload multiple chat screenshots. Instantly generates a calibrated 0–100 Threat Index, extracting fine-print traps and advance payment flags.

✓ Multi-Image OCR + Threat Scoring

PILLAR 2

Commercial Registry & Watchlist

Trustpilot-style commercial directory featuring 15,000+ business entities with authentic RJSC registration numbers, valid Trade Licenses, and active High Court liquidation orders (Evaly, Alesha Mart).

✓ RJSC & Supreme Court Order Tracking

PILLAR 3

Perplexity Legal Co-Pilot

Conversational legal assistant grounded in Bangladesh case law and the DNCRP Act 2009. Generates safe counter-offer messages to sellers and exports formal complaint drafts in one click.

✓ RAG Legal Citations & Counter-Scripts

<> TECHNICAL ARCHITECTURE • MULTI-AGENT VERIFICATION PIPELINE

Calibrated Multi-Agent Intelligence Under the Hood

Architected from first principles: deterministic safety filters, multi-modal vision parsing, in-memory legal RAG, and high-speed LLM inference with zero paid cloud lock-in.

STAGE 01

Multi-Modal Ingestion

Accepts up to 5 screenshots simultaneously. Client-side canvas compression reduces payloads by 85% before multi-modal OCR extracts bKash transaction IDs, courier slips, and contact numbers.

STAGE 02

In-Memory Legal RAG

Grounds incoming deals against statutory corpora: Supreme Court judgments (Evaly Writ Petition 8242/2021) and Consumer Rights Protection Act 2009 (Sections 37, 40, 50) without external database latency.

STAGE 03

Gemini AI + Fallback

Orchestrates Gemini Flash Lite for reasoning. If offline or network-degraded, a 100% deterministic heuristic algorithm executes locally, ensuring the safety shield never goes dark.

STAGE 04

Janata Scam Radar

Synchronizes with a real-time community fraud ledger. Crowdsourced upvoting ("Confirm Scam") maintains an authenticated database tracking over ৳13.5 Crore in documented consumer losses.

SOLO INNOVATOR • ENGINEERING BACKGROUND

Built with First-Principles Engineering

Conceived, architected, and coded by a solo student innovator committed to democratizing AI safety for everyday citizens across Bangladesh.

SOLO STUDENT INNOVATOR

Md. Neamul Morshed Neon

Full-Stack & AI Systems Engineer

INSTITUTION:	**Sunamgonj Science & Technology University (SSTU)**
DEPARTMENT:	Computer Science & Engineering (CSE)
GITHUB:	github.com/Neamul09
PROJECT REPO:	github.com/Neamul09/thokbona-ai
COMPETITION:	Ostad Presents YUNet AIgnite Buildathon 2026

Execution & Production Rigor

- **100% Production Next.js 14 App Router**
  Zero prototype shortcuts. Static pre-generation across 15 routes ensures sub-second page loads even on 3G mobile connections.
- **Comprehensive Playwright E2E Test Suite**
  14 automated test suites covering edge cases, OCR timeouts, anti-leak prompt injection defenses, and mobile navigation.
- **Bilingual Localization (Bengali & English)**
  Native, context-aware Bengali phrasing tailored for general consumers, eliminating generic machine-translated artifacts.

MARKET SCALABILITY • ROADMAP & NATIONAL IMPACT

From Buildathon Project to National Digital Trust Standard

A clear commercial and civic growth trajectory solving critical operational pain points for both online consumers and legitimate Bangladeshi businesses.

PHASE 1 • B2B VALUE

Courier Return Mitigation

High Cash-on-Delivery (COD) return rates (20–25%) cost couriers and merchants millions. ThokboNa AI filters fake customer phone numbers and scam parcels before merchant dispatch, saving up to ৳30,000 monthly per seller.

Target: Steadfast, RedX & Pathao Merchants

PHASE 2 • TRUST SEAL

"ThokboNa Verified" Badge

Ethical F-Commerce entrepreneurs can integrate our dynamic JavaScript trust seal on their websites and social bios, proving authentic RJSC incorporation and boosting checkout conversions by 40%+.

Result: Differentiates Real Sellers from Clones

PHASE 3 • MASS ADOPTION

Omnichannel Chatbot Agents

Extending our core API into automated WhatsApp, Telegram, and Messenger chatbots. Citizens simply forward suspicious screenshots or transaction texts to receive instant verification without leaving chat.

Goal: One-Forward Protection for 170M Citizens