TradeTracker Al

Empowering African Small Traders with Al-Powered Financial Intelligence

"Speak your sales, snap your receipts, see your profits instantly"

Team: Nelson Masbayi Muyodi

Event: Vibe Coding Hackathon 2025 Challenge: Retail & Ecommerce - Lightweight Storefront Builder

Date: May 2025



Small Traders Are Losing Money Every Day

70%

15-25%

0

Don't Track Expenses

Average Profit Loss

Simple Solutions

Small traders in Africa operating without financial visibility

Due to poor financial tracking and visibility

Current apps are complex, require literacy, and cost too much

The Reality:

- 70% of small traders in Africa don't track their expenses
- 💰 Average profit loss: 15-25% due to poor financial visibility
- Barriers: Complex apps, literacy requirements, high costs
- 🧑 Time constraint: Too busy serving customers to do bookkeeping

Real Impact: "I thought I was making money, but at the end of the month, I had nothing to show for it." — Mary, Nairobi Market Trader

The Core Problem: Small traders can't grow their businesses without knowing their actual profits.

TradeTracker AI - Financial Intelligence Made Simple



Speak Your Sales

"I sold 5 bags of rice for 2000 shillings"

Natural language processing in local context



Snap Your Receipts

Point camera at any receipt

Al extracts all transaction details instantly



See Your Profits

Real-time profit/loss calculations

Smart business insights and recommendations

Three Magic Words: Speak. Snap. See.

The Vision: Make expense tracking as simple as having a conversation.



Voice-to-Transaction Magic

Click "Voice Input" button

Start the voice recording process with a single tap

Say: "I sold 10 chickens for 5000 shillings today"

Speak naturally in your preferred language

Watch Al process and categorize automatically

The system identifies products, quantities, and amounts

Review confidence score and parsing results

Verify the AI understood your transaction correctly

Confirm transaction with one click

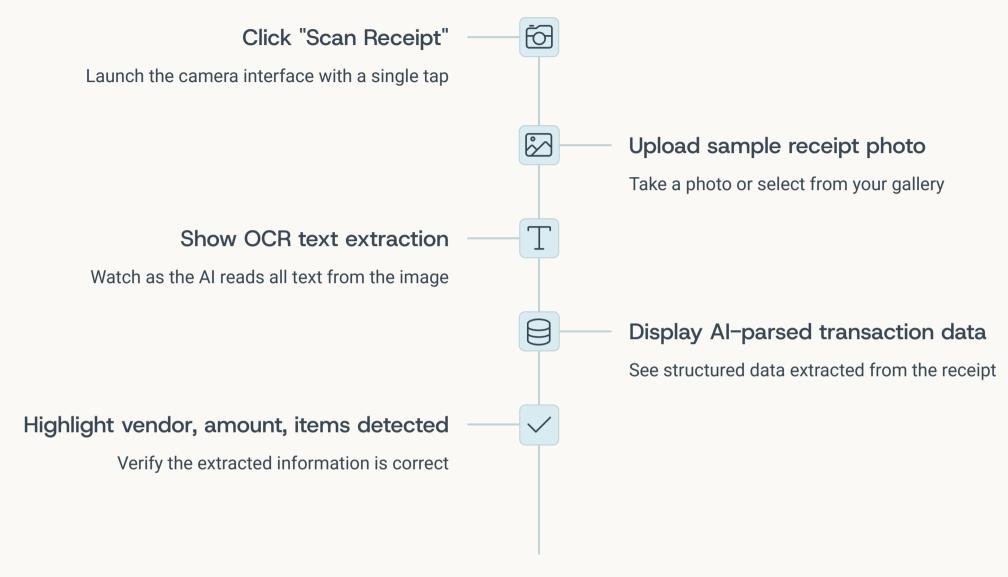
Add the verified transaction to your records instantly

Key Features Shown:

- Natural language understanding
- <a>Automatic categorization
- W Swahili/English support
- Confidence scoring
- W Beautiful voice recording UI

Wow Factor: From voice to verified transaction in under 10 seconds!

Al-Powered Receipt Processing

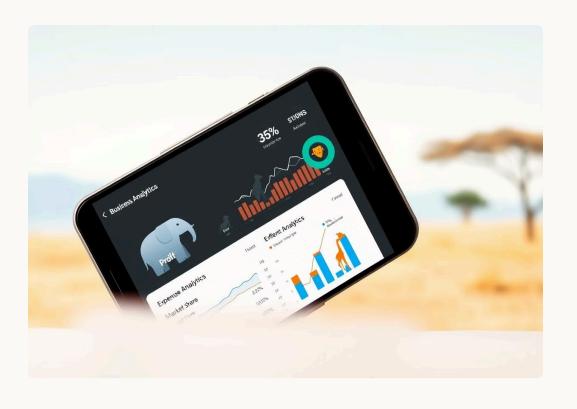


Technical Magic:

- Q Google Vision API Professional OCR
- in OpenAl GPT-3.5 Intelligent parsing
- **6** Smart Categorization Context-aware classification
- Instant Integration One-click to add transaction

Impact: Eliminate manual data entry completely!

Business Intelligence That Actually Helps



Demo Navigation:

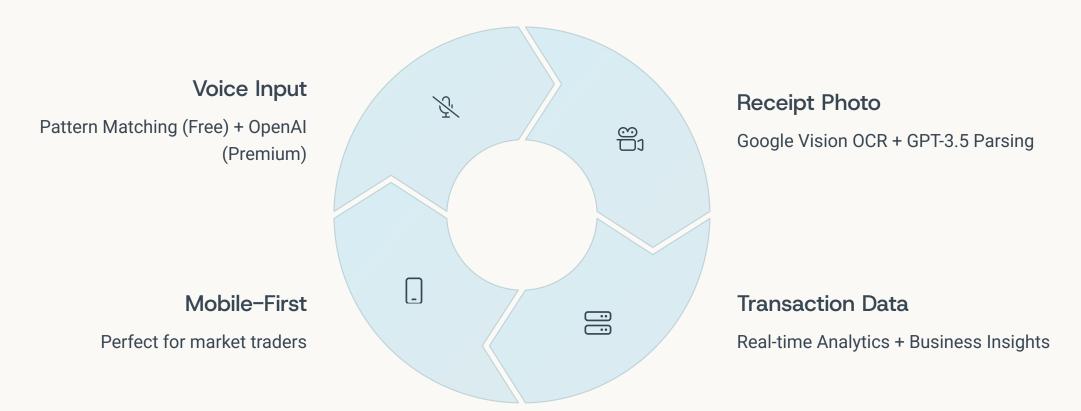
- 1. Navigate to Analytics page
- 2. Show period filtering (Last 30 days)
- 3. Highlight key metrics cards
- 4. Display trend charts and category breakdown
- 5. Read business insight recommendations

Intelligence Features:

- Trend Analysis Revenue, expenses, profit over time
- Smart Insights "Your transport costs increased 25% this week"
- Category Breakdown Visual expense analysis
- **Export Ready CSV reports for accountants**

Business Value: Turn data into actionable business decisions.

Al-First Architecture for Real Impact



Smart Design Decisions:

- Free Tier Available Pattern matching works offline
- Premium Enhancement Al for complex scenarios
- → Real-time Updates Supabase for instant sync
- Mobile-First Perfect for market traders

Tech Stack:

- Frontend: React + Tailwind CSS
- Backend: Supabase (PostgreSQL + Auth)
- Al Services: OpenAl + Google Vision
- Deployment: Vercel

Massive Impact Potential



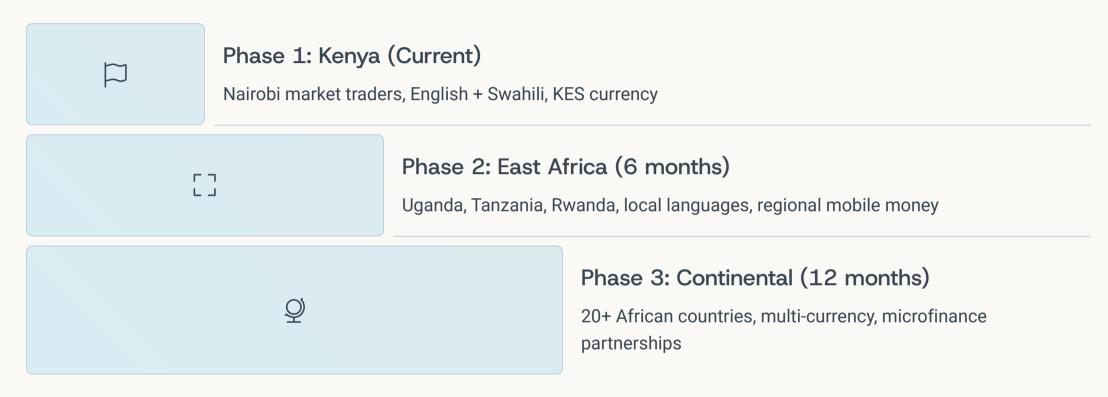
Target Market:

- # 200M+ small traders across Africa
- 💰 \$180B informal economy needing financial tools
- 85% smartphone penetration ready for mobile solutions
- 🚀 0.1% current digital adoption huge opportunity

Business Model:

- Freemium Basic tracking free forever
- ♥ Premium (\$2-5/month) AI features, advanced analytics
- III Enterprise Multi-location, team management
- > Partnerships Mobile money, microfinance integration

Built to Scale Across Africa



Technical Scalability:

- Cloud-native Auto-scaling infrastructure
- Multi-tenant Millions of users per instance
- API-first Easy integrations and partnerships