

# Zomato Hyperpure – Supply Chain Optimization Product Requirements Document (PRD)

## Objective

To enhance Hyperpure’s supply chain efficiency and restaurant satisfaction using data analytics, advanced forecasting, and warehouse expansion—resulting in faster deliveries, lower inventory waste, and improved order fulfillment rates across Tier-1 and Tier-2 Indian cities.

## Problem Statement

Zomato’s Hyperpure platform is challenged by:

- High inventory waste and stockouts due to inaccurate demand forecasting.
- Limited warehouse distribution coverage in Tier-2 cities.
- Inconsistent restaurant partner satisfaction linked to delivery delays and quality concerns.

## Goals & Success Metrics

Goal	Metric
Reduce delivery times	30% reduction (target < 3 hrs avg)
Lower inventory waste	15% decrease (baseline ₹5 crore/quarter)
Reduce stockouts	From 10% to under 5% per quarter
Improve partner satisfaction	Average satisfaction score > 4.5/5
Budget optimization	Maintain expenses within ₹100 crore cap

## User Personas

1. **Chef Rahul (Fine Dining Head Chef, 38)** – Prioritizes fresh ingredients, timely deliveries.
2. **Meera (Cafe Owner, 29)** – Needs consistent stock of popular ingredients; avoids last-minute changes.
3. **Ramesh (Operations Manager, 45)** – Monitors cost efficiency and vendor reliability.

## Key Features (MVP Optimization Goals)

Feature	Description	Priority
Real-time Forecasting	Predict demand using live order trends & external data inputs	High
Tier-2 Micro-Warehouses	Launch 2–3 mini warehouses in underserved cities	High

Predictive Restocking	ML-driven inventory planning to reduce stockouts	High
Satisfaction Dashboards	Dashboard for NPS, delivery issues, and partner feedback	Medium
Budget Monitoring Tool	Real-time spend tracking for infrastructure and logistics	Medium

### Data Sources

- **Internal Ops:** 10,000 orders, Q1 2025 (delivery time, fulfillment rates)
- **Partner Surveys:** 1,000 restaurants via Likert scale (1–5)
- **Financial Data:** Budget, tech investment (₹105 crore)

### User Flow

Demand Forecasting > Inventory Planning > Order Fulfillment > Delivery Tracking > Partner Feedback Loop

### Technical Requirements

- Forecasting Model: Python, AWS Sagemaker for ML models
- Dashboards: Power BI + Zomato BI suite
- Backend: Node.js APIs for order & warehouse coordination
- Logistics Integration: Real-time delivery APIs, route optimization engine

### Assumptions & Constraints

- Traffic, weather can affect delivery metrics unpredictably
- Budget strictly capped at ₹105 crore for FY 2025
- Warehousing subject to state regulations and vendor partnerships

### Risks & Mitigations

Risk	Mitigation
Forecasting errors in Tier-2 cities	Use hybrid models (historical + real-time + external triggers)
Server cost overruns	Move to optimized cloud infrastructure (e.g., AWS Spot Instances)
Partner churn due to stockouts	Proactive NPS surveys + compensatory credits

## Launch Plan (Optimization Rollout)

- **Phase 1 (Q3 2025):** Rollout predictive restocking + dashboards in top 5 cities
- **Phase 2 (Q4 2025):** Launch micro-warehouses in 3 Tier-2 cities
- **Feedback Loop:** Monthly restaurant surveys + quarterly review dashboards