

● 🧠 Mapa Mental – Unclear Wait-Times

● Central Node
UNCLEAR WAIT-TIMES IN SMALL RESTAURANTS

🧠 Root Causes

Orders are managed manually
No digital wait-time display
Staff overwhelmed during peak hours
Inconsistent time estimates
Slow communication between kitchen and counter

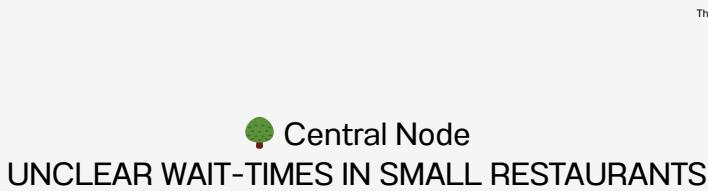
● Stakeholders
Restaurant owners
Kitchen staff
Front-desk employees
Customers
Delivery drivers

● Constraints
Low budget
Limited technical knowledge
Small working space
Unstable WiFi
High customer expectations

● Existing Alternatives
Verbal wait-time estimates
UberEats / DoorDash estimated times
Paper ticket system
Basic POS tools without real-time timers

● Solution Themes
Simple wait-time display dashboard
Peak-hour predictive estimation tool
SMS or WhatsApp customer updates
Tablet or TV monitor showing queue status
Staff time-tracking training or routine

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2. BUSINESS IMPACT

- Lost revenue from customers who leave
 - Decreased table turnover rates
- Poor online reviews mentioning wait times
 - Staff burnout and higher turnover
- Competitive disadvantage vs. chain restaurants
 - Reduced repeat customer rate
 - Difficulty managing peak vs. off-peak staffing

3. TECH BARRIERS & CONSTRAINTS

- Cost challenges
 - Limited upfront capital (\$500-2000 range)
 - Monthly subscription costs add up
 - Hardware costs (tablets, displays)
 - Training time = lost productivity

Adoption Risks

- Staff resistance to new systems
 - Owner skepticism about ROI
 - Fear of complexity
 - Languages (Spanish, Chinese, etc.)
 - Older owners less tech-savvy
 - Customers without smartphones (estimated 15-20%)

Legal & Compliance

- Customer data privacy (SMS/phone numbers)
 - ADA compliance for digital displays
 - Payment processing regulations if integrated
 - Health dept. requirements for kitchen displays

4. SOLUTION THEMES

A. Low-Cost Communication Fixes

- SMS/WhatsApp wait-time updates
 - Simple "Now Serving" LED board (\$50-150)
 - Printed ticket system with estimated times
 - QR code for real-time status check
- Google My Maps integration showing wait times
 - Feasibility: Low cost, easy adoption
 - Risk: Limited tech reach, manual updates needed

B. Medium-Tech Solutions

- 7" tablet display showing queue status
 - Simple POS integration for order tracking
 - Kitchen display system (KDS)
 - Mobile app for wait-list management
 - Automated SMS via Twilio (\$0.01/message)
- Feasibility: Medium cost (\$500-1500), requires training
 - Risk: Staff resistance, monthly costs

5. VALIDATION & STRESS TESTS

Cost Analysis

- Budget tier: Under \$500 (LED boards, manual SMS)
 - Mid tier: \$500-2000 (tablets, basic software)
 - Premium tier: \$2000+ (full POS integration)
- Monthly recurring: \$20-200/month depending on solution

Adoption Feasibility

- Success factors: Staff buy-in, simple UI, visible ROI within 3 months
 - Failure risks: Over-complexity, poor training, unreliable tech
 - Timeline: 2-4 weeks for low-cost, 2-3 months for medium solutions

Legal Considerations

- SMS opt-in required (CAN-SPAM Act)
 - Customer data storage must be secure
 - Accessibility requirements for public-facing displays
 - Labor law compliance if tracking staff performance

Market Fit

- Queens demographics: Diverse, price-sensitive, community-driven
 - Competition: Most small restaurants face same issue
 - Differentiation: Being transparent about wait-times builds trust
- Customer willingness: 78% prefer knowing wait time vs. uncertainty

6. QUICK WINS (Implement First)

1. Standardize verbal time estimates (train staff on realistic ranges)
2. Use free Google Voice for SMS updates to waiting customers
3. Install \$75 LED "Now Serving" board
4. Create simple status update script for staff
5. Track peak hours and adjust staffing
6. Post average wait times on Google Business Profile
7. Offer "call ahead" option to gauge current wait

7. NEXT STEPS

- Pilot with 2-3 willing restaurant owners
 - A/B test SMS updates vs. no communication
- Measure: customer retention, online reviews, revenue per hour
 - Iterate based on staff feedback
- Scale solution to 10-15 restaurants if successful