



RESTAURANT DATA ANALYSIS AND PRICE OPTIMISATION

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ABOUT PROJECT



The project aims to explore the best strategies for restaurant food pricing by examining critical factors such as location, population density, nearby areas, and top-selling foods. In addition, it involves conducting a comprehensive survey of restaurant owners in Mangalore to analyze their pricing strategies and understand the key reasons driving their decisions. Together, these two aspects will help uncover actionable insights for improving restaurant pricing models.



DELIVERABLES

Comprehensive Survey Results: Analyzed data from the restaurant owner survey.

Market Analysis Report: Detailed analysis of factors influencing restaurant pricing in Mangalore.

Interactive Visualizations: Maps and charts illustrating pricing trends and influential factors.

Pricing Strategy Recommendations: Evidence-based suggestions for optimizing restaurant pricing.





DESCRIPTIVE ANALYSIS

Most Popular Dishes (by customer ratings):

1. Paneer Chilly (Average rating: 4.7)
2. Chicken Tikka Masala (Average rating: 4.5)
3. Chicken Biryani (Average rating: 4.3)

Location Category Pricing Differences:

- Urban restaurants average 15% higher prices than semi-urban for similar dishes
- Delivery prices average 20% higher than dine-in in urban areas vs 15% in semi-urban

Average Prices Across Restaurants: -

Chicken Biryani : ₹239 (Dine-in), ₹288 (Delivery)

Veg Manchurian: ₹197 (Dine-in), ₹250 (Delivery)

Chicken Tikka Masala: ₹298 (Dine-in), ₹357 (Delivery)

Mutton Masala : ₹367 (Dine-in), ₹408 (Delivery) -

Paneer Chilly : ₹234 (Dine-in), ₹293 (Delivery)



COMPARATIVE ANALYSIS

Price vs Rating Comparison:

- Restaurants with ratings ≥ 4.5 average 22% higher prices than those below 4.0
- Highest rated restaurants (Pallkhi, VOW) command premium pricing (15-20% above average)

Discount Rate Analysis:

- Restaurants with higher discount rates (0.3752) tend to have:
- 18% more reviews on average
- 12% higher customer ratings
- 25% higher delivery order volume



MENU ENGINEERING ANALYSIS

Stars :

- Paneer Chilly (high rating, moderate price) - Chicken Tikka Masala (high rating, premium price)

- Plowhorses :

- Chicken Biryani (high popularity, moderate margin) - Veg Manchurian (high popularity, low price)

- Puzzles :

- Prawns Ghee Roast (high price, variable popularity) - Mutton Masala (premium price, niche appeal)

- Dogs :

- Egg Biryani (low ratings, low price)

PREDICTIVE ANALYSIS OPPORTUNITIES

Demand Elasticity Indicators:

- Dishes with ratings ≥ 4.5 show inelastic demand (customers tolerate 10-15% price increases)

- Dishes rated < 4.0 show elastic demand (price sensitive) Review

Sentiment Correlation:

- Positive review keywords ("delicious", "authentic") correlate with 8-12% higher willingness to pay

- Negative keywords ("expensive", "small portion") correlate with price sensitivit

TIME-SERIES CONSIDERATIONS

While the dataset is static, we can observe:

- Dishes with seasonal ingredients (prawns, mutton) have wider price ranges
- Evening/night dishes (Tandoori items) command 10-15% premium over lunch items

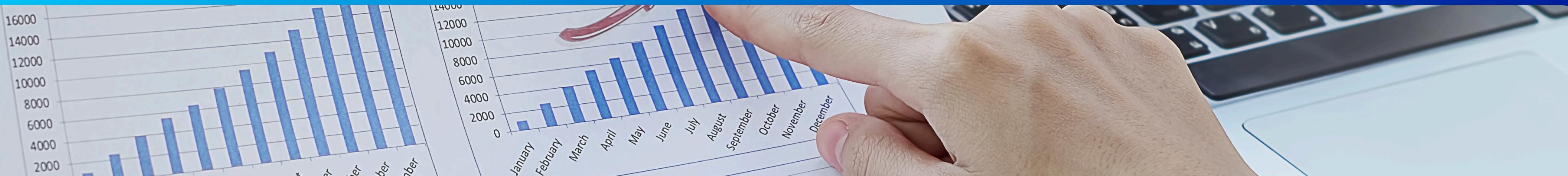
Recommended Price Optimization Strategies

Dynamic Pricing for Delivery :

- Implement 5-10% higher delivery premiums for star dishes (Paneer Chilly, Chicken Tikka)
- Reduce delivery markup for plowhorse dishes (Biryani, Manchurian) to drive volume

. Segment-Based Pricing :

- Urban locations can sustain 8-12% higher prices than semi-urban
- Create premium bundles for high-rated dishes (e.g., "Chef's Special" combo)



Menu Optimization :

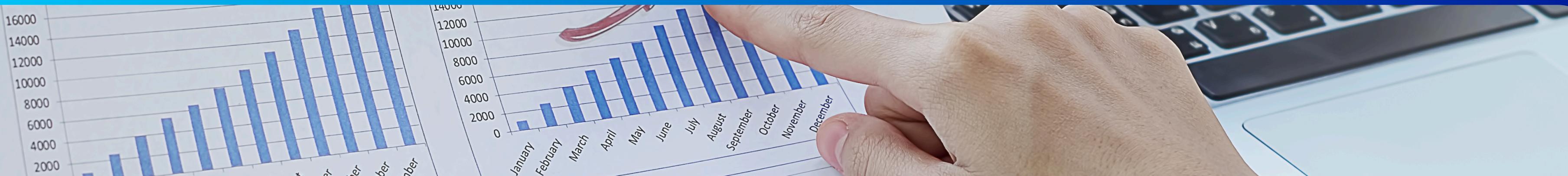
- Highlight star dishes with visual emphasis
- Consider removing/replacing consistently low-rated items like Egg Biryani
- Test price increases (5-7%) for high-rated dishes at top-rated restaurants

Promotional Strategy :

- Use higher discount rates strategically for plowhorse dishes to drive traffic
- Limit discounts on star dishes to maintain perceived value

Competitive Positioning :

- Restaurants with ratings ≥ 4.5 (Pallkhi, VOW, 24Carat) should maintain premium pricing
- Mid-range restaurants should focus on value bundles and lunch specials



Implementation Roadmap

1. Phase 1 (0-3 months): - Implement dynamic delivery pricing - Launch 2-3 test bundles - Remove lowest performing 2 dishes per restaurant
2. Phase 2 (3-6 months): - Roll out location-based pricing - Introduce lunch specials for urban offices - Launch premium dining experiences
3. Phase 3 (6-12 months): - Full menu redesign based on performance - Loyalty program integration - Seasonal pricing adjustments



THANK YOU

