Dynamic Pricing & Demand Forecasting for Fitness Classes

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Business Context

• Problem: Revenue per class is not optimized. Some classes are overbooked, others underutilized.

• Goal: Use data-driven pricing + forecasting to balance demand, improve utilization, and maximize revenue.

Data Insights (EDA)

• **III** Demand Drivers:

High demand: Line Dance, Zumba, Body Combat, Aquafit

Low demand: Junior Gym, Gentle Keep Fit, Aqua Tots

• Strime Trends:

Evening & weekend slots = higher demand.

Seasonal dip: June & specific weekdays.

 ← Key message: Not all classes are equal — pricing should reflect demand patterns.

Price Elasticity Results

- Elasticity \approx -0.325.
- Interpretation: Demand is inelastic (absolute value < 1).

A 1% increase in price \rightarrow only ~0.325% decrease in demand.

Opportunity

You can raise prices moderately (5–10%) in high-demand classes with minimal loss in bookings.

This increases revenue per class without significantly reducing attendance.

 ← Key Message: Classes have inelastic demand — Cult.fit can safely test small price hikes in popular slots.

Pricing Strategy Recommendations

Dynamic Pricing Rules:

- ▲ Increase prices (5–15%) for high-demand classes (Zumba, Body Combat, Aquafit evenings).
- ▼ Reduce or bundle prices for underbooked classes (Junior Gym, Aqua Tots).
- P Time-based pricing: Higher rates on weekends/evenings, discounts for off-peak hours.
- © Promotions: Offer "Family Packages" or loyalty discounts for low-demand slots.

Business Impact

Expected Benefits:

- Higher Revenue per Class → price increases in inelastic demand classes.
- Improved Utilization \rightarrow discounts drive traffic to low-demand classes.
- Better Forecasting = Smarter Scheduling → avoid over/under-staffing.
- Customer Satisfaction → fairer pricing & choice for consumers.

Next Steps

- 1. Pilot dynamic pricing for top 5 high-demand & low-demand classes.
- 2. Monitor revenue uplift & utilization.
- 3. Scale across all fitness centers.
- 4. Automate pricing with Al-driven rules.

THANK YOU!

With dynamic pricing + demand forecasting, Cult.fit can unlock higher revenue and better customer satisfaction — sustainably.