**Problem:** How will the introduction of an automatic Refresher machine address the growth of Refreshers?

**Goal:** To analyze 30% YoY Refresher growth to find an optimal capacity for the new Refresher machine.

**Optimal Capacity:** The ideal volume that meets the demand, minimizes waste, and reduces workload.

**CURRENT STATE**
- 18 Steps
- 2L of Capacity
- Up to 30 Refills
- 1 oz. Waste

**FUTURE STATE**
- 8 Steps
- 12L of Capacity
- 1-5 Refills
- Precise Dispense

**OPTIMIZE PRODUCTION CAPACITY TO MAXIMIZE ORDER FULFILLMENT**

**DATA COLLECTION**

- Refresher Build Process
- Specific Flavor Sales
- All Beverage Units Sold by Store
- Refresher Units Sold
- Revenue Tiers Stores
- Tryer Center

**DATA ANALYSIS**

- Grouped 8800+ stores by revenue into tiers
- Projected daily usage by Refresher base
- Calculated Optimal Capacity using linear programming
- Sorted tiers by number of Refresher Units sold annually

**RESULTS**

- Level 1
- Level 2
- Level 3
- Level 4
- Level 5
- Level 6

- Tier 1
- Tier 2
- Tier 3
- Tier 4
- Tier 5
- Tier 6

- 12L capacity is sufficient for most stores
- Tier 4 and below will be satisfied with 12L
- 60K units of Refreshers is the cutoff mark
- Tier 5 and above could exceed 12L

**IMPACT**

- Labor Savings
  - 5 min set up + 8 min clean up
  - 15 min set up + 17 min clean up
  - 25 min set up + 27 min clean up

- Ergonomics

- Waste
  - $0.31 revenue lost per drink

- Additional Information

**RECOMMENDATIONS**

For stores in Tiers 5 and above exceeding Level 3 demand, we recommend:

- Increase concentrate to meet a 24L demand
- Increase bag size from 3L to 6L
- Add an additional machine for high volume flavors