

Air-Catering Services – Fresh Fruit Just in Time

Background:

The airline industry was going through a consolidation phase and most airlines were looking to cut costs to survive in a difficult market. One of the first targets was to reduce the expense on the meals provided. While low cost airlines do not provide meals to their passengers, the full service airlines were looking to cut costs to continue providing meals while trying to keep their fares low. In this context, a leading international air caterer supplying meals to most of the global airlines, approached KIAP to help them identify and improve operations in their largest facility located at Mumbai.

Approach

A diagnostic study was done during the first two days involving the managerial staff and various projects identified for immediate implementation. One such key area was the fresh fruit processing section in which the following metrics were tracked

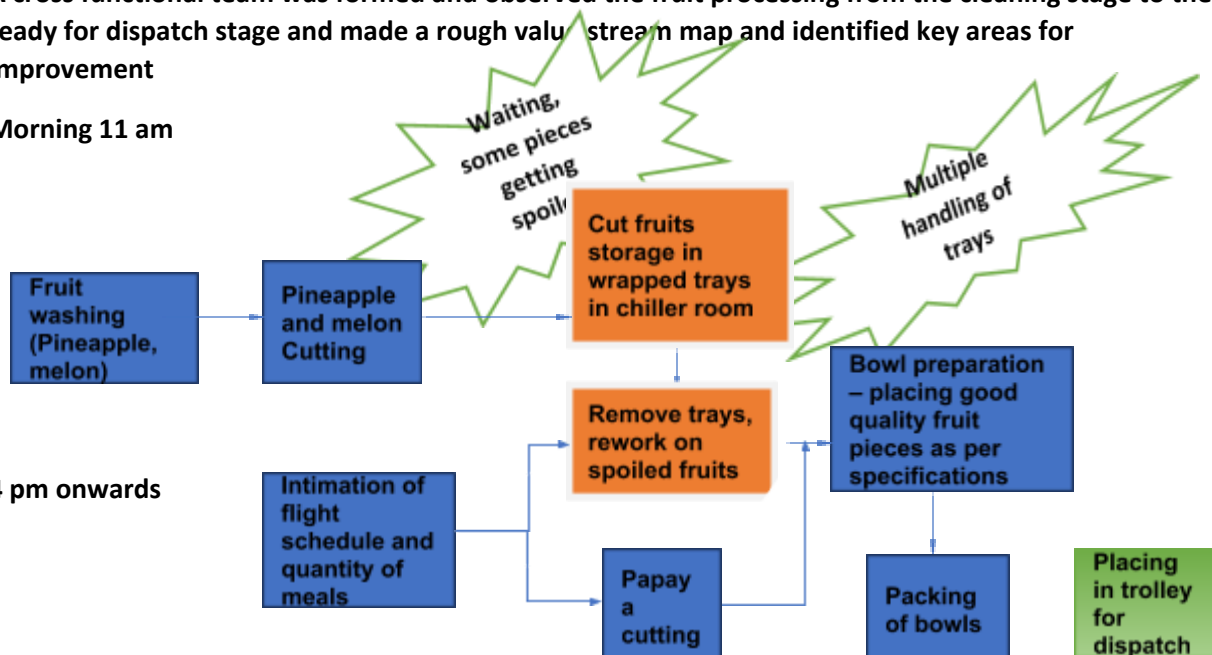
- Wastage of fruit due to over ripening and quality issues pertaining to lack of freshness
- Low productivity and increased throughput time per bowl of fruit
- High Energy consumption for intermediate storage of cut fruits

Observation:

A cross functional team was formed and observed the fruit processing from the cleaning stage to the ready for dispatch stage and made a rough value stream map and identified key areas for improvement

Morning 11 am

4 pm onwards



- Batch cutting of pineapple, mellation and water melon followed by storage as WIP in separate chiller room as mandated by Food Safety Norms

- Multiple MUDA of motion of processing staff to bring trays, bowl preparation and rework
- Rework of pineapple due to oxidation after storage as cut pieces
- Bowl preparation and setting done as batch – excess motion and non value adding time

Improvements Done

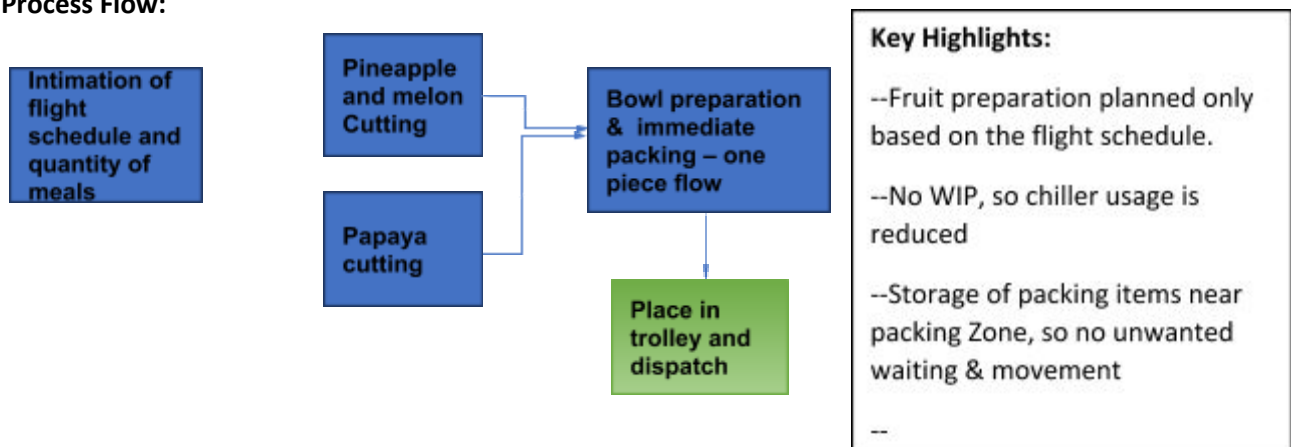
KIAP experts and the client team identified two potential improvement areas

1. Fruit processing using flow concept to ensure JIT supply to airlines
2. Optimum Utilization of chillers to reduce energy consumption

Action Initiated:

Fruit bowls are prepared as per flight load / flight schedule by making all fruit cutting as parallel operations & the dishes are packed online.

Process Flow:



Results achieved

Airline	Qty	Start time	Finish time	Time taken
Airline 1	240 serving	12:30	13:20	50 minutes
Airline 2	260 serving	13:20	14:10	50 minutes



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1. 250 bowls ready 'From start to finish' in 50 minutes with same 4 people. Productivity of 1.25 bowls per person per minute which was 25% higher than the earlier process.
2. Fruits not stored in fruit holding room at any stage. **One chiller room shut down**
3. Spoilage of pineapple minimized.