

Reducing airport carousel congestion

Optimising baggage allocation to decrease carousel waiting times



Goal

A major hub airport in Asia was looking to improve customer experience and airport efficiency.

The company had identified baggage congestion as the key issue and was working to expand the number of carousels, investing significant capital.

Insight and Action

QuantumBlack's analytics identified the root cause of congestion using one year of data, aiming to optimise baggage carousel assignment against three metrics: carousel congestion, load balancing, and quality of service.

Applying a dynamic model, we achieved a significant gain in performance. Crucially, our solution was simple to deploy, so we could embed algorithms within existing operating systems.

Results

27%

Improvement in carousel congestion

19%

Improvement in load balancing

10%

Improvement in quality of service, which would help delay significant Capex