Airport Operations at
Billy Bishop Toronto City Airport

Executive Summary
MIE463 - Team 16

Background and Problem

Billy Bishop Airport is a very important transportation hub centered around business travel in Toronto. With its small size and convenient location near the heart of the Financial District, this airport serves the needs of the business travellers arriving/departing Toronto from/to cities in Canada and USA. It is a reputable airport, however, it is not without its issues. Airport reviews provide evidence of passenger dissatisfaction at flight delays and given that the airport serves flights geared towards time-wary business travellers, any lost time for them could be costly. Thus there is a need to analyze and redesign the airport's business processes to reduce the time loss for passengers and Billy Bishop Airport.

Process Analysis

The Process Improvement Team (PIT) has defined the scope of this project to be limited to the moment a passenger arrives at the airport up until their flight departures and the process of an aircraft arrival to departure. Once the process was mapped, the PIT used process analysis tools to identify possible areas of flight delays and discovered issues in three potential processes; passenger check-in process, aircraft turnaround and baggage handling.

The project team then established the project mission that set up the course of action for the rest of the project:

To enhance passenger flying experience at Billy Bishop Airport by ensuring efficient airport operations.

The PIT contacted Billy Bishop's operations team to schedule a tour to get the most accurate information possible, but they declined our request. For this reason, the team has conducted research by reviewing literature, textbooks written on airport operations management and other online resources. We used our best judgement to determine what could be possible issues for an island airport of Billy Bishop's scale.

Vision and Performance Measures

The project team set out a goal to reduce the number of flight delays and cancellations at Billy Bishop Airport by 10% by 2022, aligning with Ports Toronto's vision of effective airport management and sustainable economic growth and future of the city. To track our project's performance, we set up performance target measures for 1 and 5 year plans on the following aspects:

- Reviews of airlines and airport
- Plane turnaround time
- Percentage of flight delays and cancellations per week
- Cost to airlines and passengers

By identifying these measures, the PIT can get a better understanding of how well various implementations may affect operations at Billy Bishop airport when any proposed recommendations are implemented.

Recommendations

After the decomposition and root cause analysis of various processes and identifying performance measures, the team then brainstormed multiple long and short-term solutions that address the problem and will improve passenger satisfaction. Using the same baggage cart train for multiple aircrafts, improve pre-flight checks, self-serve kiosks for flight information, automation of baggage handling, and revamp of check-in kiosks to name a few. Many of these recommendations can impact change management and affect various stakeholders at the airport such as Billy Bishop Airport or airline staff and the Airport itself. The automation of baggage processing affects job security, and so it is important to employ strategies that can mitigate these effects such as continuous communication with employees or repurposing various tasks.

Conclusion

Using various business process techniques, and learning about the Airport business at Billy Bishop Airport, the project team was able to:

1. Map and analyze the Airport's internal and external processes
2. Identify root causes of departure delays
   2.1. At passenger check-in
   2.2. During aircraft turnaround
   2.3. During Baggage handling
3. Provide various design solutions and organize by value and cost
4. Identify performance measures to track progress and plan for pursuing continuous improvement
5. Determine mitigation strategies for change management and possible responses for stakeholder concerns

Therefore with the successful implementation of this project, Billy Bishop Airport can improve its operations, reduce delays for its customers, and in turn increase passenger satisfaction.