

Joanne Pagani

Thesis

Developing a Framework for a National Strategy for Baggage Handling at Airports.

Abstract

Background research shows that the design standards for baggage handling systems (BHS) do not consider the level of service (LOS) as perceived by the passengers. Moreover, it is evident that a national strategy for defining the LOS of BHS and the means to improve it are lacking. A LOS model that can ascertain the LOS being achieved by the BHS would be beneficial to airlines, passengers, and airport designers. Such a model would enable airport authorities and airlines to determine when improvements are required and to develop a strategy for implementing the needed changes. This thesis presents a study performed at six Canadian airports, where over 800 passengers rated the LOS provided by the overall BHS and its different components. The results confirm that traditional time and space standards; currently used by aviation agencies, airports, airlines, and baggage handlers; are not adequate. Subsequently, regression analysis was performed to develop aggregate and disaggregate user perceived LOS models. The aggregate model, created from all collected data, is a comprehensive tool for the preliminary evaluation and analysis of the perceived LOS of BHS's and should be used as part of the overall LOS evaluation of airport systems. The disaggregate model, based on annual airport volumes, allows for a more detailed evaluation of the perceived LOS of the BHS and provides an additional tool for overall terminal analysis and design. Finally, a disaggregate model was developed for each of the six participating airports for future evaluation of these specific airports.

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Completion

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Supervisors

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