

THE STUDY ON THE SELECTION OF A DEPARTURE AIRPORT IN SRI LANKA

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Degree of Master of Science in Transportation

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DECLARATION

I declare that this is my own work, and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other University or Institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text. I retain the right to use this content in whole or part in future works (such as articles or books).

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The above candidate has carried out research for the Masters thesis/dissertation under my supervision. I confirm that the declaration made above by the student is true and correct.

Name of Supervisor: Dr. G.L.D.I. De Silva

25/03/2025

Signature of the Supervisor:

Date:

DEDICATION

*This thesis is dedicated to my beloved parents,
For raising me to believe that everything was possible
And lovely wife & cherished daughter,
For making everything possible.
I'm honored to have you all in my life.
Thank you for everything.*

ACKNOWLEDGEMENT

After successfully completing my thesis, I'd want to express my heartfelt appreciation to everyone who helped me along the way.

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ABSTRACT

The world has become a smaller place through the expansion of the aviation industry. Commercial airports enable millions of people to travel for business, go home for the holidays, take vacations around the globe, or travel to other important events. Most contemporary airport management studies and research focus on airport efficiency, effectiveness, processing speed, and ranks on international league tables (Losekoot, E. (2015). These policies appear to favour airports that can efficiently transport most travellers and their luggage.

Identification of passenger airport choice determinants may be of great value to airport planners as it can assist with determining passengers' demand at the airport. These studies include different airports and different segmentations of passengers. Air passengers usually choose airports after considering multiple factors such as airfare, frequency of flights or flight schedule, access time, airport delay, and modes of the airport. The choice may be influenced by the socio-economic characteristics of the individuals and the purpose of the travel. However, there are studies conducted globally there is no general approach to model how air passengers will choose their origin airport in Sri Lanka in response to attributes of the air travel, attributes of inside and outside the terminal based on their travel purpose.

It is important to identify the attributes that will influence a departure passenger to select a departure airport because it is a crucial component when planning passenger redistribution policies. This study adds to the body of knowledge by providing a deeper understanding of the variables affecting air traveller's experience as expressed by travellers depending on their trip purpose whether it is business, leisure, pilgrimage or migrant worker trip. The objective of this study is to identify the influential factors and influential level of each factor for selecting a departure airport by air travellers based on their travel purpose. Data were collected for this purpose from passengers who visited the Bandaranaike and Mattala International Airports, and more than 300 people were sampled using a specific questionnaire over the internet and in-person interviews. To determine the influential level of each attribute, the selected attributes have been used on SP survey with 3495 observations to estimate a logit choice model.

The analysis presented in this study has shown the important role of air ticket price, the access time to the Airport, the number of transfers to the destination and the number of flights per day to the destination were found to have a consistently significant effect on business, leisure and migrant travellers while air ticket price, the cost of getting to the Airport, the number of flights per day to the destination and availability of multiple transport modes to the Airport were significant for pilgrimage travellers in airport selection. The findings of the research can be used by the airport authority and various transport operators for evaluating the changes in the service attributes in international airports improving the discounted airfares, ground access mode services, airport facilities, and airport efficiency for increasing the competitiveness of the airport.

Keywords: Airport choice; Multinomial logit model; Discrete choice model; Stated Preference method

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LIST OF ABBREVIATIONS

MNL	Multinomial Logit Models
SP	Stated Preference
BIA	Bandaranaike International Airport
MRIA	Mattala Rajapaksha International Airport
CAASL	Civil Aviation Authority of Sri Lanka
IATA	International Air Transport Association
ASQ	Airport Service Quality
ICAO	International Civil Aviation Organization

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