EFFECTIVENESS OF THE AIRPORT CITY

(AEROTROPOLITAN) CONCEPT

A Thesis

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ABSTRACT

Airport city becomes a trend to many airports in 21st century. Airport city concept is a novel concept to the world. This research is focused on to identify how airport cities emerge in the world and its usefulness to any given airport. Further, it investigates the effectiveness of current practices of airport functions and their potential to be an airport city (aerotropolitans). This study focused on identifying the key factors contribute towards an airport become an airport city and developed "airport city effectiveness criteria (ACEC)" to evaluate the city status of for any given airport. Possible influencing factors were identified through a comprehensive literature survey and opinion survey. Inductive approach was used to collect data through studies and industry experts. After interviewing industry experts, seven factors, namely geographic location, demand, technology, nature of the airport, non-aeronautical activity centers, business management and access modes were identified as the key factors influencing airport city status.

The AHP technique was use to rank the seven criteria selected based on importance towards achieving airport city status. A stratified sampling technique was used to select industry experts for ranking. It is identified that non-aeronautical activities, geographic location, demand, nature of the airport are more important, to achieve airport city status. Access modes, business management and technology are the other factors that must be considered to be an airport city. By utilizing the seven identified factors, Airport City Effective Criteria (ACEC) was developed. Key performance indicators and its measures were identified for each factor. Weight was assigned for each key performance indicators by interviewing industry experts. Bandaranaike International Airport is considered as a case study based airport. Decision makers of the industry including board of directors and senior managers assigned score against weights to each key performance indicator. Hong Kong International Airport (HKG) measures were calculated and it utilized as a benchmarking airport. Finally, it is identified that how effective BIA for achieving airport city status.

Keywords: Airport City, Evaluation Criteria, Key Performance Indicators, Airport City Drivers

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DECLARATION

I hereby declare that this submission is my own work and that to the best of my knowledge and belief, it contains neither materials published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma or university or other institute of higher studies, except where an acknowledgement made in the text.

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DEDICATION

I dedicate this effort

to

My Loving Amma & Thaththa

My Dear Teachers: Kindergarten to University

My Sisters & Brothers

(Kumudu, Thushari , Kushani, Nishantha, Thushara ,Malitha)

Methupa Kulan Surendra

&

Matheesha Surendra

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Abbreviation

AASL: Airport and Aviation Services Sri Lanka Limited

ACEC: Airport City Effectiveness Criteria

ACI: Airport Council International

AMS: IATA Three Letter Code for Amsterdam Schiphol International Airport

BIA: Bandaranaike International Airport

CAA: Civil Aviation Authority

CMB: IATA Three Letter Code for Bandaranaike International Airport

CMR: Colombo Metropolitan Region

HKG: IATA Three Letter Code for Hong Kong International Airport

HKIA: Hong Kong International Airport

IATA: International Air Transport Association

ICN: IATA Three Letter Code for Incheon International Airport

KPIs: Key Performance Indicators

MRIA: Mattala Rajapaksa International Airport

O-D: Origin Destination

SIN: IATA Three Letter Code for Changi International Airport

SLA: Sri Lankan Airlines Limited

TSA: IATA Three Letter Code for Taipei Songshan International Airport

WLU: Work Load Unit