

# Strategic development trend and key factors analysis of Airport City in Taiwan

## ARTICLE INFO

### Keywords:

Airport-city development  
Trend analysis  
Regional economic integration

## ABSTRACT

In the past decade, many airports have shifted from being simple transfer ports to logistical transportation hubs and, more recently, into multi-functional airport cities. The emergence of the airport city provides evidence of advanced transportation development of a country or a region, as it serves as the impetus for national industry and a gateway to economic globalization. This paper explores the development trend of airport cities in Hong Kong, South Korea, Singapore as a basis for analysis of outcomes in Taiwan. Using grounded theory-based qualitative research, this study analyses and conceptualizes thirty key factors and seven trends for airport-city development via interviews with focus groups and experts. These development trends are verified by a contingency analysis with airport cities development intelligence. In addition, this study conducts an industrial matrix analysis and verb-term coding to propose action items for industrial categories in the case of Taiwan Taoyuan international airport.

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## 1. Introduction

Airports have traditionally been located a distance of 15–30 km away from their corresponding city for air transportation purposes only, and lacked a highly substantive relevance to the economy or life in their corresponding neighborhood areas. With growth in passenger flows and related logistical activities, some airports have added intermodal functions (Phang, 2003), a wider array of organizations and enterprises (Mclay and Reynolds, 2006) and become the focus of a logistic economic zone (Lee and Yang, 2003). These stages in development are associated with what has been labeled an “airport city”. In this outcome the airport is not just a hub for the movement of people and goods, but on its adjoining land provides a wide array of other commercial services that consolidates its function as a gateway to a nation or a region’s industrial impetus and to overall economic development (Canaday, 2000). Despite the recent global economic recession, the trend toward economic globalization and development of world airports has been expressed in the emergence of the airport city model in a number of locations (Charles et al., 2007). Dallas in the United States, Schiphol in The Netherlands, Chek Lap Kok in Hong Kong and Changi Airport in Singapore are commonly cited as examples of this outcome.

The Asia-Pacific region will be the largest air-transport market by 2027, with 45% of travel being to, from, or within the region (Boeing Company, 2007). Located between Northeast and South-

east Asia, Taiwan Taoyuan International Airport (TTIA) connects Tokyo, Incheon and Beijing in the north to Hong Kong, Singapore and other Association of South East Asian Nations (ASEAN) in the south, and sits on the main east west routes between and the US and China, as can be seen in Fig. 1.

This location means TTIA has potential to become one of the top international airport cities in Asia. It has experienced a rapid 20% average growth in passengers and cargo since its establishment in 1979 and at one time was second only to Tokyo’s main airport as the busiest Asian airport. In recent years, problematic cross-strait relations have led to stagnation in the operation and development of TTIA in Taiwan as can be seen in the trends in its cargo and passenger traffic compared to those in three other major Asia airports in Hong Kong, South Korea and Singapore (The four economies bodies were called Four Asian Tigers of Newly-Industrialized Economies, NIE), as shown in Fig. 2 (Airports Council International, 2009). Table 1 shows TTIA falling behind other airports of Four Asian Tigers in statistics of flight network of airport.

Partly in response to these trends, and also to fuel economic development in Taiwan and benefit from the trade associated with the expected economic development in East Asia, Taiwan has been planning to begin the transformation of TTIA by re-planning 6150 ha of land surrounding TTIA to function as a Free Trade Zone (FTZ). This could provide the foundation for an Airport-City development at the airport shown as Fig. 3. This project provides the focus of the research reported here.

This study first explores the meaning and content of airport cities through a literature survey and secondary data collection, then utilizing interviews with experts and focus-group seminars to

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