

The Low Cost Model and Strategies for Taiwanese Airlines

The trend of low-cost carrier operations has traveled from the United States and Europe to Asia. The key successful strategy of low-cost carriers is to provide an effective business plan to cut down costs significantly, and for the large reduction in fares to stimulate the market and increase revenues overall. The purpose of this research is to investigate various low-cost strategies that could be applied by Taiwanese airlines to increase their productivity and competitiveness in the market. The operating characteristics of the US and European low-cost carriers are compared with those of newly established Asian low-cost airlines and Taiwanese international airlines with respect to their operating environment, aircraft productivity, unit costs and yields. By examining the differences in operating results, recommendations are given for improving the productivity of Taiwanese airlines, coupled with suggestions for aviation policymakers.

By Cherie Lu, Szu-Yin Liu, and Shue-Ting Shen.

The global aviation market is moving towards open sky policies and environments. Over the last decade, the fast-rising path of European and American's low-cost carriers (LCCs), such as EasyJet, JetBlue, Ryanair and Southwest, has resulted in a tremendous impact on full-service network carriers (FSNCs) (Morrell, 2005; Barrett, 2004; Franke, 2004; Ito and Lee, 2003; Pender and Baum, 2000).

The Asian LCCs have not been established only until the late 90s. Since then, there has been a surge in new entries in the new millennium. So far, around 20 or so LCCs are operating in intra-Asian routes, mainly focused in Southeast Asia, Australia, Japan and India (Table 1). Figure 1 maps the geographical distribution of these airlines.

Features and limitations of Asian LCCs' markets

With low-cost carriers entering into the aviation market in Asia, the leisure market has grown faster, attracting those who would not be able to afford traveling by air if there were no low fares offered in the market. However, there are some differences between Asian and European /American LCCs. What follows now is an overview of those differences with respect to geographical environment, air service agreement, human resources and secondary airports.

Geographical environment

With respect to the geographical environment, Asian countries are quite disparately situated from one another, particularly the countries and islands



Figure 1 Geographical distribution of Asian LCCs

in the Pacific Ocean and Southeast Asia, such as Korea, Japan, Taiwan, Malaysia, Philippines, Australia, to name a few. In addition, because of the lack of rail and road infrastructure or inland waterway, air transport is more urgently demanded than other modes of transport. With the geographical advantage, a well-situated airport in Southeast Asia could reach several countries in two hours (1500 mile flight radius - Malaysia, Thailand, Singapore, Philippines, Cambodia, Burma and Vietnam). This factor fits well with the point-to-point operating model of LCCs and plays a certain degree of attraction for the development of LCCs in Asia.

Air service agreement

The air transport environment in Asia is stricter than that in Europe and North America in terms of bilateral air service agreements and navigation environment. Very few Asian countries have signed open skies agreements with each other. Several conditions in a few selected countries/regions are listed below:

- Southeast Asia: the countries in the Association of Southeast Asian Nations (ASEAN) have signed an agreement, which liberalizes the market and allows frequent flights between cities. In addition, they have decided to eliminate certain forms of

control in 2008 and work towards an "open sky" which is set to be completed by 2015.

- China: has opened up their market to Korea, Thailand, Malaysia, Singapore and so on, but still a restrictive market.

- Hong Kong, Thailand, Malaysia: under the coordinated reciprocal benefit right, the markets in these countries are more liberalized and could attract more transfer traffic.

- Taiwan - with the unstable political situation with China, Taiwan has its limits in many freedoms.

The above-mentioned points make it harder for new airlines, in particular LCCs, to enter the market in many Asian countries. Due to the regulations of the market, the flights between countries are not easily connected. This also restricts the development and entry of LCCs in Asia).

Human resources and efficiency

Labor costs in Asia are generally lower than those in Europe and America, especially in the Southeast Asian region. This means the output (ASK per labor cost) of traditional Asian airlines is higher than that of Western airlines, even without the establishment of LCCs. There is a limitation for potential Asian LCCs to reduce their labor costs. In addition, internet booking and call centers, one of the key features of European and American LCCs, have not yet broken through in Asia, due to the limitation of internet users and the use of credit cards. This again would limit the development of Asian LCCs.

Secondary airports

In Asia, many countries only have a main international airport for connecting the capital with other cities and the rest of the world. In Europe and America, however, quite often there are multiple airports in major cities with secondary airports playing increasingly important roles. A couple of Asian cities have now put more effort in their secondary airports as the major hub airports are getting more congested.

Although there are limitations and regulations in the Asian air transport market, combined with the success of open skies agreements and the strong economic growth, a huge potential and development is foreseen in Asia.

Performance measures of the selected LCCs

In order to evaluate the areas in which Taiwanese international carriers can improve their performance, six airlines (two European, two American and two Asian LCCs) have been selected for the performance evaluation analysis. The two Taiwanese full-service carriers are China Airlines and EVA Air. Based on data availability, the selected six LCCs are Ryanair, Easyjet, Southwest, Jetblue, Airasia and Virginblue.

Table 2 lists the basic operating characteristics of these eight airlines. Southwest has the largest fleet size, the most passengers and personnel, the highest ASKs (Available Seat Kilometers) and RPKs (Revenue Passenger Kilometers). China Airlines and EVA Air carry fewer passengers than the European and American LCCs as well as Virginblue, but higher than Airasia; however, they employed more personnel than Ryanair and Easyjet.

The following gives a performance benchmark of these airlines in terms of aircraft utilization, employee productivity, fuel efficiency, operating costs and passenger yield (Cranfield University, 2004, 2000).

Aircraft utilization (block hours/day)

Figure 2 illustrates aircraft utilization of 5 LCCs and 2 Taiwanese carriers. China Airlines and EVA have done a reasonably good job in average aircraft utilization; however, there is still ample room for improvement in short-haul operations.

Employee productivity: Available Seat Kilometers (ASKs) per employee

This indicator is mainly for understanding the employee's efficiency for

each airline. Ryanair and EVA Air have significantly higher levels than the others. That means they have high employee efficiency. AirAsia has the lowest employee productivity of the selected airlines.

Fuel efficiency: fuel cost per available tonne kilometer (ATK)

EVA Air and China Airlines performed well in this area, partly due to the fact of longer average passenger haul and proper hedging policies as EVA Air indicated in their annual report.

Unit operating cost: Operating cost per Revenue Passenger Kilometer (RPK)

Except for Virginblue and Easyjet, the other airlines have very low unit costs, especially Airasia.

Passenger yield: Revenue per RPK

More seat availability or longer distance will result in lower yield. Virginblue has the highest yield of 11.8 US cents. Taiwanese carriers have comparatively low yields of around 5 US cents.

Combining the indicators of both unit costs and yields, Figure 5 shows that Asian airlines are operating in a low-yield and low-cost environment. Interestingly, Jetblue, as an American LCC, has a just as low unit cost and yield as Asian carriers, even much lower than those of Southwest. Virginblue is an exception of the Asian LCCs, because it has a high yield and high cost levels, higher than its European counterparts. This could be partly explained by the fact that Australia is a high-income country, compared to other Asian countries.

Low cost operating environment in Taiwan

The traditional full-service airlines and LCCs have serviced their distinct markets with some overlaps in order to gain profits and passengers. In Taiwan,

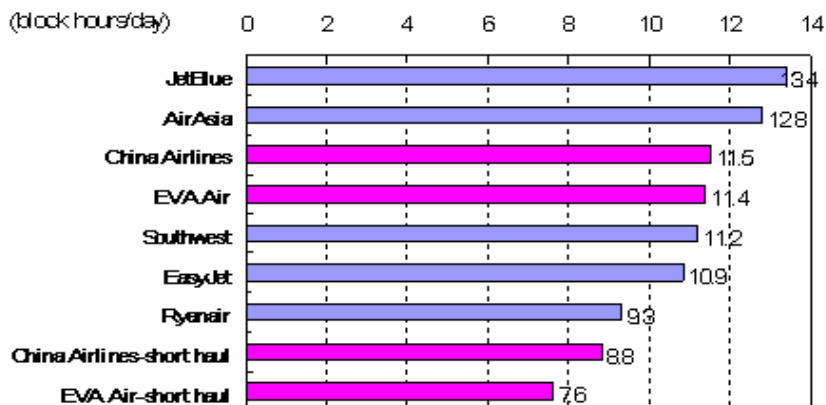


Figure 2 Aircraft utilization (block hours/day)

the aviation market is quite restrictive both domestically and internationally. Compared with other major Asian Airlines, such as Singapore Airlines and Cathay Pacific, Taiwanese international airlines face more regulations and restrictions. With no typical LCCs established in Taiwan, some characteristics of LCCs could still be adopted by traditional carriers. Based on the analysis and interviews with Taiwanese international airlines, the following points below are some tactics which could help Taiwanese airlines in reducing operating costs.

Airport options

We suggest that Taiwanese airlines can emphasize both hub-and-spoke networks and point-to-point services with the increase of passenger demand. There are 18 airports in Taiwan that could operate commercial air transport services. Apart from the two main international airports, namely CKS and Kaohsiung, there are other regional airports that suit the needs of low-cost operations and have the potential demand, such as Songshan, Tainan and Hualien airport. When the Civil Aeronautics Administration allows these domestic airports for international operations and loosens the regulations on air fares, there are possibilities in developing more airline bases for international short-haul routes, with only some airport facility modifications needed.

Cooperation of government and airports

Although airports naturally enjoy monopoly power, with the increasing competition of airline markets, airports are inevitably facing more competition and requirements as well. Airports should operate in a way that suits the needs of airlines and allow airlines the flexibility to choose the airport services that they need and charge for those that have been used. This way, airlines would gain more freedom in positioning themselves in different kinds of market segments.

Furthermore, the Taiwanese airline operations are mostly still under the traditional bilateral air service agreements between Taiwan and other countries. Airlines have no freedom in choosing the routes, deciding on capacity and setting fares as freely as under open skies agreements. Long-term sustainable air transport development can only be achieved under open and competitive markets.

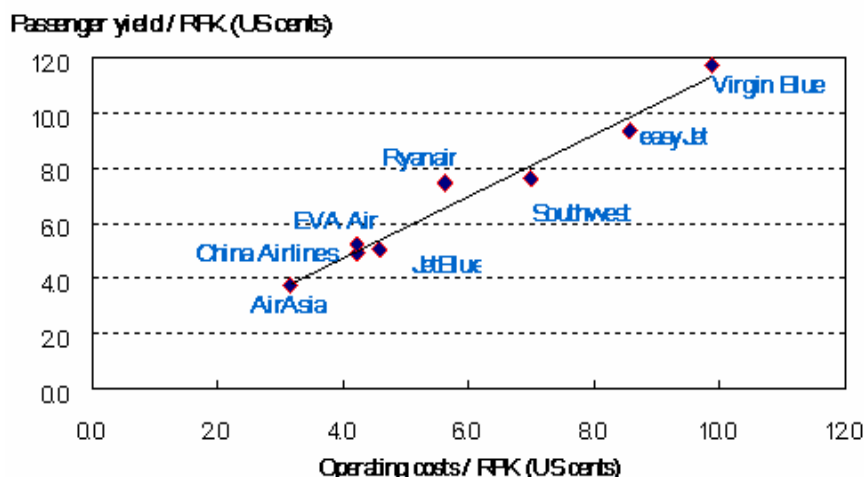


Figure 3 Unit operating costs vs. passenger yield

Sustaining service level

The typical LCC operating models with no frills would not suit the market of traditional airlines at all. Passengers are still willing to pay extras for better services when choosing the full service carriers. However, the simplified fare structures and the revenue management of LCCs could be adopted by Taiwanese airlines for offering lower prices to price-sensitive passengers and higher fares to time-definite business travelers.

Conclusions and recommendations

Facing the competition of LCCs, many European and American full-service carriers have reduced their short-haul fares by around 30-40% as well as increasing their internet booking and changing their revenue management. However, without actually cutting down the operating costs, traditional airlines cannot compete head-to-head with LCCs. What traditional airlines can learn from the LCCs are their techniques of cutting down costs as well as simplicity of aircraft fleet and operations. The conclusions and recommendations of this research are:

Separate service quality management for short-haul and long-haul flights. Standard comfortable service level is still required for long-haul flights. However, less frills and various service levels could be accompanied with different fare choices for short-haul flights.

Development of multi-base airports and the use of secondary airports could avoid the congestion and dependence of hub airports and reduce airport-related costs at the same time, while increasing the flight network and destinations.

Simplicity of aircraft fleet with one,

two or three aircraft types is a key for Taiwanese carriers in reducing aircraft-related operating costs as well as increasing aircraft utilization. Indeed, Taiwanese carriers have been simplifying their fleet in the past years, but it would take some time before the right aircraft fleet is in operation for their markets.

Governments need to support the air transport development by providing more adequate airport facilities, loosening the regulations on air fares and opening up markets for better operating environment, although more stringent competition is foreseen to come along with open markets.

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