# Factors that cause effects on the airline industry

Environment, Air

# Introduction:

Airlines overcome substantial strategic, financial and operational risks. In particular, the market changes in general economic conditions have influenced considerably the airline industry. Carriers have suffered losses of $50bn over the past 10 years[1]is the most specific evidence. Thus, this paper studies changes in four major fields confronting the airline industry including market forces, financial risks, government policies and global events as well. Simultaneously, this study illustrates different revenues to be derived from these points.

Structure of this paper seeks to contribute in this way. After introduction, section 2 provides a theoretical analysis of market forces. Section 3, 4 and 5 describe the effect of financial risks, global event and government policies respectively. Finally, section 6 concludes the study.

# Analysis

# Market forces:

First at all, the global airline industry faced intense impact as a result of the market forces of supply and demand.

In fact, the change in demand is one of the most important factors which affected to the airline industry. The initial variable that can shift demand curve is income. In other words, if the passengers have the high income, obviously they will be able to get the tickets more in replacement of choosing car, train, etc. As a result, their demand to go by plane will definitely rise. However, over past 10 years, due to the global economic

crisis, income has been decreased substantially which brings in the decline in demand of customers. This is illustrated by the Figure 1 below.

Figure 1: Decline in demand

Similarly, the wage of employees in the airlines industry has been varied considerably in the recent years. For instance, approximately 78% of employees at San Francisco Airport made under $10 per hour but this amount increased of 33% when there was a higher living wage ordinance[2]. All things said, the airline industry has been influenced frankly by incomes of their passengers and their own employee’s wages.

In term of supply, input price is the essential variable to shift the supply curve. Indeed, fuel price is one of clear example. Because jet fuel costs comprise a significant component of airline operating cost, the airline industry also has been affected. While short term cash flows are related to changes in the fuel price which make revenue be slow initially, much of the price effects are likely to be passed on as all airlines face similar fuel costs in the long term. Indeed, there was an argument that airlines also face an underinvestment problem whenever profitable investment opportunities arise during times of high jet fuel costs.[3]About technology, due to the stronger development of technological system, the supply of world airline industry also rises. As a result, there are a huge number of both new and old airlines can provide the demand of customers.

In term of competitors, if an airline sets up the higher price, they will obviously loss a large number of passengers at the same time which results

in a lower revenue. The specific example is the differences in percentage of passenger seats sold (load factor) of 9 U. S airlines including Delta, American, United, Continental, US Airways, Southwest, Alaska, Jet Blue and Air Tran since they are competitors of each other. This following figure 2[4]describes this

Figure 2:

The rest variables also play an important role which affect to the demand curve of airline industry including tastes, expectation, technology and number of buyers or sellers but the most necessary factors are still the first two variables.

Elasticity of demand is also the essential factor that influenced the airline industry. Indeed, competition consistently affects the price of airline tickets because it gives customers other options. When the demand is elastic, price and total revenue will be negative and when the demand is inelastic, price and total revenue will be positive. And this explains why the loss and earnings of world airline industry vary substantially. Hence, the table 1[5]below shows the annual loss and earnings of airline industry from 1990 to 2005 and figure 3 describes the annual net profit of the world airline industry[6].

## Annual

## Loss and Earnings

1990

$ 3. 9 billion loss

1991

$ 1. 9 billion loss

1992

$ 4. 8 billion loss

1993

$ 2. 1 billion loss

1994

$ 0. 3 billion loss

1995

$ 2. 3 billion profit

1996

$ 2. 8 billion profit

1997

$ 5. 2 billion profit

1998

$ 4. 9 billion profit

1999

$ 5. 4 billion profit

2000

$ 2. 5 billion profit

2001

$ 8. 3 billion loss

2002

$11. 0 billion loss

2003

$ 2. 4 billion loss

2004

$ 7. 6 billion loss

2005

$ 5. 7 billion loss

## Figure 3: Annual Loss and Earnings

Figure 4:

## Financial risks:

There are three factors that cause financial problem for airline industry: fuel price, interest rate, currency rate.

Fuel price:

In general, fuel price always plays an important role in the world economy. That is the reason why either increasing or decreasing of fuel price affect deeply on airline industry. It is easy to see that fuel and airline are complements. Airline cannot operate without the existing of fuel. Gasoline, oil, or other products from crude oil are utilized as irreplaceable fuel in airline industry. According to the theory, complements are two goods for which an increase in the price of one leads to a decrease in the demand for the other[7]. A change in price of fuel will shift the demand curve. In the other hand, assume that fuel is input and airline transportation is output. Rising in input price leads to a leftward shift the supply curve. The following diagram describes how fuel price causes a change in both demand and supply.

Figure 5: Changes in both Demand and Supply

Based on the diagram, when price of fuel increases from P1 to P2, the quantity demanded and quantity supplied decreased an amount computed by (Q1 – Q2). As the result, both demand curve and supply curve shift to the left. Airline market reaches a new equilibrium E2.

Applying those theories into the reality, the annual report 2009 of IATA stated that the surge in fuel prices in the first half of 2008 meant fuel represented more than 50% of many airlines' operating costs[8]. By year-end 2009, crude oil prices had risen 85%, to $74 a barrel, as economic recovery began to raise demand and as futures markets, anticipating strengthening economic recovery, added to upward pressures[9].

Figure 6: Fuel price throughout the year, 2010[10]

Higher jet fuel prices automatically eat into airlines' profits; meanwhile improved economic conditions are boosting passenger numbers. For instances, in 2004, many nations including British Airways, had already added fuel surcharges to ticket prices or raised fares to counter higher fuel costs. Many of Asia's major carriers, including Singapore Airlines, Australia's Qantas, Malaysia Airlines and Indonesia's Garuda had also introduced surcharges[11].

Fuel price cannot remain a stable status for a long – run period then airline industry should be flexible to react quickly.

Interest rate:

Interest rate is other factor that effect on market economy in general and airline industry in particular. The interest rate connects the price of goods today and their price in the future. Higher interest rate increase expected cost of distress and this is particularly so for the airline industry where leverage is high and distress costs are substantial.

Exchange rate:

Exchange rate risk is important as airline profitability is related to currency values. Tourism demand is one of reasons that show how exchange rate cause changes of airline industry. Both inbound and outbound are influenced by exchange rate levels. When the exchange rate is high, tourist will receive benefits. The result is they are willing to travel more, thus, quantity

demanded of airline tickets will be increased. In contrast, the depreciation of domestic currencies make tourists consider whether they should travel or not. Travelling in recessive period is a typically example. If the exchange rate falls down, customer might save their expenditure by not travelling or they might wait for promotion tickets. It means that foreign demand for international and domestic flights move inversely with the value of the home currency[12].

## Global events

The airline industry in the world has many changes every year. The more global event has happened, the more the affection has an effect on the airline industry. In 2001, after the terrorization 11/9 happened, the industry of airline decreased very quickly. Follow the number of airline industry, US airline posted they have net loss $7 billion. 20% staffs and employee lay off by US airline. The number of passenger reduce continuous and have criterion recovered in 2003[13]

Figure 7: US Airline industry passenger revenues 1999 – 2004

Beside, the price of oil have effected on this industry. When the price of oil increase, the fees for material grow up . If the airline do not rise up the price of ticket, they will decrease their net profit. If the price of oil falls off, there are more than promotion tickets for passengers.

Moreover, the disease can be affected to the industry . Example, when the SARS disease happened, many countries have not allowed passengers to come to place where SARS disease has.

## Government policies

The government policy is another factor what can be effect on the airline industry. Because the government policy control on price, so the airline industry have 2 legal price such as price ceiling and price floor . The price ceiling is a legal maximum on the price at which a good can be sold[14]. For example, a airline has good quality, so they want increase fees. The price ceiling applied to fees to help people can be paid. When the airline wants to attracted passenger, they create promotions about the price their ticket. So the price floor is the price minimum at which ticket can be sold and the company airline still has net profit.

P Surplus S

E

D

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Figure 8:

Taxes is a important factor of the government policy . When the taxes of the passenger increase , the price of ticket rise up , so if the airline industry want to grow up, they need decrease another fees in ticket. When the taxes of the airline industry increase, the price of ticket will increase or the industry will cut off something to protect their profit.

## Conclusion:

The above analysis showed that factors like market forces, financial risks, global events and government policies cause effects on airline industry. In order to overcome and continue develop own airlines, carriers should seek a suitable way. In details, by successfully managing opportunity cost, and adapting to an ever changing economic environment, airline industries can have economic success. However, the well-being of the nation’s economy will have a direct impact on the level of success experienced in the airline industry. During economic shortfalls in the nation’s economy, travellers will have fewer resources available to travel for pleasure. Contributing to the negative economic influences in the airline industry, future and existing policies targeting the airline industry will continue to hinder the industry’s ability to recover losses in periods of economic hardships.