

# Analysis on Price Discrimination in Airplane Tickets

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## ABSTRACT

With the development of the airline business and living standard, an increasing number of people choose to take airplanes to travel and go business because it has several advantages. But people are always confused about the price of airline tickets, why people get different prices with other consumers on the same flight, even the consumer in the next seat. This paper will explain this phenomenon, examining the theory of the strategy, and how it applied in the airline industry by using data and references of airline price tickets. Price discrimination is found as a strategy that can help to increase profits. The price discrimination strategy is commonly based on different identities of passengers, different travel times and different booking time.

**Keywords:** Pricing Strategy, Price Discrimination, Airplane Tickets, Airlines.

## 1. INTRODUCTION

The airplane has gradually become one of the most popular ways of transportation. People's demand for taking planes has increased significantly. No matter travelers or people in business would like to choose airplanes because they can get many benefits from taking airplanes, such as saving time, enjoying high-quality service, getting convenience, having a comfortable experience, etc. And the price of tickets is a factor that directly proportional to the profits. From the business point of view, pricing the tickets is an important and necessary process of airlines' operation. And almost all airlines will price their tickets using specific pricing strategies.

The term "pricing strategy" is defined as some businesses use methods to decide how much they should charge for a product or service. And decision-makers determine the strategy according to some mathematical calculations, market research, historical data, and consumers' taste. Reasonable strategies can make a significant and irreplaceable impact on achieving the goal of maximizing profits and having greater consumer loyalty as well. However, each airline will choose to adopt different strategies. That's because of each one face various basic situation. And the strategies business used may constantly change due to complicated and variable conditions, which may be affected by internal or external issues.

Sometimes people may confuse the price of airplane tickets and always have question, how can airlines generate profit with a low price of the ticket or a meager discount but a high cost? And some of the customers may also have questions about why different airlines set different prices for tickets of the same route? How can they compete with each other? Because airlines use different pricing strategy, including price discrimination, low price strategy, etc. Price discrimination is the most common and significant way of pricing in airline industry. This paper will examine the price discrimination strategy that can make airlines get maximum economic profits and how airlines make theories into practice, setting price discrimination suitable to their current situation.

## 2. THEORY OF PRICE DISCRIMINATION

Price discrimination occurs when the sales of identical products or services at different prices from the same producer. Price discrimination is a general and universal strategy for airlines around the world. According to the economics theory, airline cooperation can maximize their profit when marginal revenue equal to marginal cost. However, some oligopolistic airlines do not satisfy with this limited level of profits and want to have more. So, they may choose to use price discrimination to get supernormal profit. Price discrimination can generally be divided into three categories depends on different conditions. First-degree price discrimination occurs when the producers sell

different units of output for different prices, and different people get different prices. Second-degree price discrimination occurs when the producer sells different units of output for different prices, the prices change proportional to units of the good. Third-degree price discrimination occurs when the producer sells products to different people with different prices, but the price of each unit of output sold to a particular person is the same. When price discrimination applies to this specific market, airlines can divide consumers in several ways.

### **3. PRICE DISCRIMINATION APPLIED INTO AIRLINES**

#### ***3.1. Different identities of the passengers***

One of the possible ways depends on consumers' characteristics and features. The most common way that airlines used to practice price discrimination is special price and full price tickets. Airlines can generally divide all passengers into two categories, businessmen and travelers, and then charge them different prices, because they have different needs and aims. According to Bradley, "Business travelers' airfare is typically round-trip and almost always purchased by a corporate travel department." [1] For business travelers, their companies help pay for tickets for them, so there is no need to worry about the price. Instead, what they need is a suitable time for take-off and landing that best matches their timetable. So, they will directly choose the one that satisfied their needs no matter how high the price is, indicating that tickets for business travelers are inelastic. Airlines use this point to charge business travelers a high price without discounts. According to Xiaofang Wang, "This part of the population will be relatively loose travel time requirements, more sensitive to travel costs." [2] This indicates that travelers who want to go traveling, visiting relatives, or meeting friends, are relatively flexible with their time compared with businessmen. But they are sensitive with price because they have to pay for tickets by themselves, and everyone hopes to pay less. So, it is price elastic for travelers. Airlines will charge at a lower price for the same tickets and sometimes provide a colossal discount according to other external factors like seasons and how long in the booking (specifically explained after).

In these two categories, there is still some special tickets exist with different prices. Children and infants, as a particular group of people, usually be charged different prices. They always generally be charged at a meager price. According to Mandi, "Tickets for lap babies are generally free or require payment of airline fees and taxes only on domestic flights, though a small ticket fee is commonly included on international flights." [3] It indicates that for infants if they take domestic flights, the only money they should pay for is tax and others instruction fees. If they take international flights, the

price is pretty low compared with adults. Although it may differ between different airlines, it is generally to attain an extremely low price for infants. She also stated that "Select airlines offer reduced fares for children." [3] It indicates that children may not get the as low price as infants, but they can get some reduction of fares.

There is one special type of tickets is charter flights. According to Labrencis, "Charter flights tend to be less expensive than commercial flights." [4] It shows that Charter flights' tickets charge a different price as commercial, and it has a lower price since airlines consider all the passengers on this plane as a population. But the discount for this type of ticket is relatively weak because it provides more room and flexibility for passengers.

Another type of special ticket is group tickets. As Kyle said, "In fact, bulk airline tickets can have several benefits, including saving you both money and stress." [5] This indicates that airlines impose price discrimination on group tickets because it can be regarded as bulk purchasing, so the price is relatively low.

The way of charging the types of tickets mention above all follow the strategy of price discrimination, charging different prices for identical products.

#### ***3.2. Different travel times***

Different travel times can be considered in two ways, different seasons and different take-off and landing times.

According to the weather, holidays, and other external factors, the whole year can be divided into peak season and off-season. During peak season, most people have some day-offs, and the weather is suitable for people to travel to their destination. During the off-season, people may busy with their work, and the weather does not allow them to have a nice travel experience. So, the price will vary during this process. According to a journal written by Singhal and Upadhyay, the travel trade analyst stated that "Ticket prices are likely to climb by 30-40% during the peak travel season a few weeks away." It indicates the prices will increase by a large extent in peak season, much more expensive than tickets in normal time. The demand is rising sharply and significantly in that period. At the same time, demand is inelastic because consumers are less sensitive to the price. It is the only time for them to travel, so no matter how high the price is, they are willing to buy. Airlines catch this point and practice the strategy of price discrimination, charging a much higher price. They can earn more profits from this point, and the extra profit may make some contribution and help balance the low revenue coming into business during the off-season. During the off-season, the price of airline tickets is just the opposite, which is extremely low compared with the

price in peak season. Consumers are really sensitive to the price because their time and plan are flexible. Different times for traveling help to reflect the consumers' sensitivity to price, so airlines can use this index to impose price discrimination and try to gain more significant profits.

Different take-off and landing times also make a significant impact on the price of tickets. In figure 1 and figure 2[6] captured from China Southern Airline's official website, it shows the specific information about two flights from Beijing to Shanghai on 26th April. They are the same type of plane, A350 large, the same airports for take-off and landing, but different arrival and departure times. In Figure 1, both departure and arrival times of the flight are in the morning, which is regarded

as a good and nice time since travelers are free to use the whole afternoon. In Figure 2, the departure and arrival times are at night, which seems less attractive to consumers because there is not enough time to rest. At the same time, people may worry about safety and inconvenient traffic as well. The most important point is that people feel uncomfortable taking night flights during original sleep time, so they are unwilling to choose a flight at night. From the figures, it is clear that the price for a morning flight is much higher than a night flight because airlines use price discrimination to set prices. To fill all seats on the night flight and lower risk of making loss, airlines charge tickets for the night flights much cheaper than the day flight, attracting attention and giving more incentives to passengers.



Figure 1. A morning flight from Beijing to Shanghai on 26<sup>th</sup> April



Figure 2. An evening flight from Beijing to Shanghai on 26<sup>th</sup> April

### 3.3. Different booking time

People may book airline tickets with different lengths of advance. Some people are sure about their flight, having already chosen a certain one suitable to their time and plan so that they can book a flight with a long time in advance. Some of people cannot make sure about their daily route and have lots of uncertainties, so what they can do is book a few days in advance. According to Rick Seaney, who is CEO and co-founder of online research FareCompare, "If you are traveling within your country, the cheapest day to book flights is from about three months to three or four weeks before departure." [7] It

indicates that, for booking domestic flights, it better for travelers to book flights a long time in advance. Because airlines want to attract as many consumers as possible to ensure the seat rate, they first lower the price to give incentives to consumers. But after the following weeks, as soon as they get enough rate of seats, they start to increase the prices of tickets, even increase to full price. Because the goal for airlines now is to generate as much as possible profits can. And in figure 3[8], it states the prices of flight from New York to Los Angeles in different days. It is clear that the tickets' prices in November are lower than the price in October. This can also prove that it can help travelers save money if they book domestic flights early.



Figure 3. Price of the flight from New York to Los Angeles in October and November

International flights show a similar tendency. According to CheapAir, "...stay fairly flat for a few months, then start to creep up slowly, until about 90 days before departure when the place of increase starts to accelerate." [7] It indicates that consumers should book international flights early, at least half a month in advance.

Although booking a long time in advance may bring lots of uncertainties and inconvenience to travelers, it can help them save money which is the point that people are most concerned about.

#### 4. CONCLUSION

Price discrimination is a strategy that firms are typical to use, which can help to increase profits. When price discrimination is applied to the airline industry, there are several forms of presentation that can practice, including special tickets, different travel times, and different advanced booking times.

From the consumers' point of view, it is better to optimize the plan and obtain the lowest price. Firstly, travelers should arrange their travel time as quickly as possible to have a larger probability of buying lower-charged airline tickets. Simultaneously, travelers should choose the day that demand is relatively low and avoid the special days, such as holidays and weekends, because lower demand means a lower price.

However, the airline business is one of the most significant industries in countries. The pricing strategy cannot be based only on market direction, consumer taste, and the goal of profit-maximization. Pricing strategy should relate more to countries' construction, infrastructure construction, etc. This paper only analysis the pricing problem from an economic point of view, so

it is not enough and should be explored more from other sides.

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