

# Optimization and Practice of Airline Ticket Pricing Strategy: A Comprehensive Analysis Based on Market Demand, Competitive Environment and Passenger Behavior

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**Abstract:** The optimization and practice of airline ticket pricing strategy is a complex and critical process, which needs to consider many aspects such as market demand, competitive environment and passenger behavior. This paper aims to analyze how these factors affect ticket pricing and explore how airlines can optimize their pricing strategies in practice. In practice, airlines continue to optimize pricing strategies, through dynamic pricing, class management, promotional activities and other means to increase ticket sales and profits. At the same time, airlines also need to strengthen data analysis and technology application to improve the accuracy and flexibility of pricing to better adapt to changes in market demand and passenger behavior. The optimization and practice of airline ticket pricing strategy is a continuous process, which needs to consider market demand, competitive environment and passenger behavior.

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## 1.Introduction

Airline ticket pricing strategy is a complex and dynamic field, which involves many factors and market mechanisms. In the airline industry, ticket prices are not fixed, but flexibly adjusted according to market demand, supply, competition and the airline's operational strategy. First of all, market demand is one of the key factors affecting air ticket prices. During holidays, peak travel seasons or special events, passenger travel demand will increase significantly, resulting in higher ticket prices. On the contrary, in the off-season or when demand is low, airlines often offer discounted tickets to attract passengers in order to maintain load factor and revenue; Second, the supply side also has an impact on ticket prices. The number of seats available on a flight is limited, and as seat availability diminishes over the course of the ticket purchase period, the airline will gradually increase the price to ensure that each seat is sold at the highest possible price. This pricing strategy, known in economics as "price discrimination," aims to set different prices according to the willingness of different passengers to pay. In addition, the competition status of airlines is also an important factor affecting ticket pricing. On the same route, different airlines will set their pricing strategies according to their brand, service quality and market share. In order to compete for market share, some airlines may adopt a low price strategy, while others may focus more on providing high-quality service and experience; Finally, the airline's operational strategy also affects ticket prices. For example, some airlines may introduce special fares, discounted tickets or membership benefits to attract passengers and improve load factor and revenue. At the

same time, airlines also use data analysis to predict demand trends, so as to dynamically adjust fares to maximize revenue<sup>[1]</sup>. Airline ticket pricing strategy is a complex and changeable field, which involves many aspects such as market demand, supply, competition and operation strategy. Airlines need the flexibility to adjust fares based on these factors in order to remain competitive in the fierce market competition and achieve profitability.

## **2.The Impact of Market Demand on Air Ticket Pricing**

Market demand is one of the key factors affecting air ticket pricing. When formulating pricing strategies, airlines must pay close attention to changes in market demand and make flexible adjustments according to market supply and demand<sup>[2]</sup>.

### **2.1 Changing Rules of Market Demand**

The change of market demand has a certain regularity. During the peak travel season and holidays, ticket prices usually rise due to the increased demand for people to travel. During off-season and non-holiday periods, ticket prices may drop to attract more travelers. Airlines can accurately grasp the changing law of market demand through historical sales data and market trend prediction, so as to formulate more accurate pricing strategies<sup>[3]</sup>.

### **2.2 Relationship between Market Demand and Seat Utilization**

Market demand directly affects seat utilization on flights. In order to improve seat utilization, airlines need the flexibility to adjust ticket prices according to changes in market demand. For example, in the peak demand season, airlines can appropriately raise ticket prices to increase revenue; In the off-season, it can reduce prices, attract more passengers, and improve the load factor of flights. Through scientific and reasonable pricing strategies, airlines can make full use of the market demand and achieve maximum revenue.

## **3.The Impact of Competitive Environment on Ticket Pricing**

The competitive environment is another important factor affecting airfare pricing. In the aviation market, many airlines compete for limited passenger resources, and the competition is extremely fierce. As a result, airlines must pay close attention to competitors' pricing strategies and be flexible to adjust to market changes.

### **3.1 Pricing Strategies of Competitors**

The pricing strategies of competitors directly affect the pricing decisions of airlines. When there are multiple airlines in the market offering the same route, they compete to offer offers, promotional prices and discounts in order to attract more passengers to choose their flights. This competition will lead to lower airfares, which is good news for consumers. For airlines, however, excessive price wars can take their toll. Therefore, airlines need to adjust pricing strategies flexibly to meet the challenges of competitors while ensuring profits.

### **3.2 Differentiated Pricing in a Competitive Environment**

In the highly competitive aviation market, differentiated pricing has become an important means for airlines to gain competitive advantage. Airlines can set different prices according to different customer groups and needs. For example, business travelers are generally less price sensitive and more focused on comfort and convenience of service; Leisure travelers, on the other hand, are more focused on price benefits and travel experiences. As a result, airlines can offer business travelers a premium service at a high price, while offering leisure travelers affordable options at a low price. Through differentiated pricing strategies, airlines can meet the needs of different passengers and improve market share and profitability<sup>[4]</sup>.

## **4.The Impact of Passenger Behavior on Ticket Pricing**

Passenger behavior is another important factor affecting ticket pricing. The purchasing decisions and behavior characteristics of passengers directly affect the sales of tickets and the income of airlines. Therefore, airlines need to deeply understand the purchasing preferences and behavior characteristics of passengers in order to develop pricing strategies that are more in line with market demand.

### **4.1 Purchasing Preferences of Passengers**

The purchasing preference of passengers directly affects the pricing strategy of air tickets. Different passenger groups have different purchasing preferences. For example, some passengers pay more attention to price concessions and are willing to choose low-cost tickets; While other passengers pay more attention to the comfort and convenience of the service and

are willing to pay a higher price. Through market research and data analysis, airlines can accurately grasp the purchase preferences of passengers and formulate more accurate pricing strategies <sup>[5]</sup>.

#### **4.2 Price Sensitivity of Passengers**

The price sensitivity of passengers is one of the important factors affecting the ticket pricing. Passengers with high price sensitivity are more sensitive to price changes and are easily affected by promotional activities and discounts. However, passengers with low price sensitivity pay more attention to the quality and experience of the service and are less sensitive to price changes. Airlines can develop different pricing strategies based on the price sensitivity of passengers. For example, for passengers with high price sensitivity, airlines can introduce more promotions and discounts to attract them to choose their flights; For passengers with low price sensitivity, better service and experience can be provided to increase their satisfaction and loyalty.

### **5. Optimization and Practice of Airline Ticket Pricing Strategy**

Based on the comprehensive analysis of market demand, competitive environment and passenger behavior, airlines can develop more scientific and reasonable ticket pricing strategies. Here are some tips and practice cases for optimizing your airfare pricing strategy.

#### **5.1 Dynamic Pricing Strategy**

Dynamic pricing strategy is a common method of air ticket price optimization in aviation industry. The traditional fixed pricing model is gradually replaced by dynamic pricing. Under the dynamic pricing strategy, airlines can flexibly adjust ticket prices according to changes in market demand and different time periods. For example, during the peak travel season or holidays, airlines can raise ticket prices moderately to increase revenue; In the non-peak season or mid-week travel days, the ticket price can be appropriately reduced to attract more passengers to choose the airline's flights. By constantly monitoring market demand and competitors' dynamic pricing, airlines can make accurate and sensitive price adjustments to maximize profits <sup>[6]</sup>.

#### **5.2 Differential Pricing Strategy**

Differential pricing strategy refers to setting different prices according to different customer groups and needs. Airlines can make differential pricing based on factors such as route, flight time, class of cabin, passenger type, etc. For example, business travelers are often willing to pay higher prices for quality service and convenient travel; Leisure travelers, on the other hand, are more focused on price benefits and travel experiences. As a result, airlines can offer high-priced first or business class services to business travelers while offering low-priced economy services to leisure travelers. Through differential pricing strategies, airlines can meet the needs of different passengers and improve market share and profitability.

#### **5.3 Bundle Sales Strategy**

The bundling strategy is an effective means for airlines to increase revenue. Airlines can attract more passengers to choose their own flights by offering tickets bundled with services such as hotels and car rentals. For example, airlines can partner with hotels to offer airfare + hotel packages; Or cooperate with the car rental company to provide convenient service of air ticket + car rental. Through the bundling strategy, airlines can increase customers' desire to buy and improve revenue.

#### **5.4 Promotion Strategy**

The promotion strategy is one of the important means for airlines to attract passengers. Airlines can attract more passengers to choose their flights by launching special fares, discounts, rewards points and other promotional activities. For example, during holidays or special events, airlines can offer limited time discounts or special fares; Or through rewards programs that encourage passengers to buy tickets multiple times and accumulate points. Through promotional activities, airlines can stimulate passengers' desire to buy and increase ticket sales and revenue.

#### **5.5 Space Management Strategy**

Cabin management strategy is one of the important means for airlines to optimize ticket pricing. Airlines can make full use of seats and maximize profits through reasonable division of cabin classes and sales strategies. For example, airlines can reasonably divide first class, business class and economy class according to factors such as route, flight time and demand, and set corresponding sales prices. At the same time, airlines can also increase seat utilization by adopting some

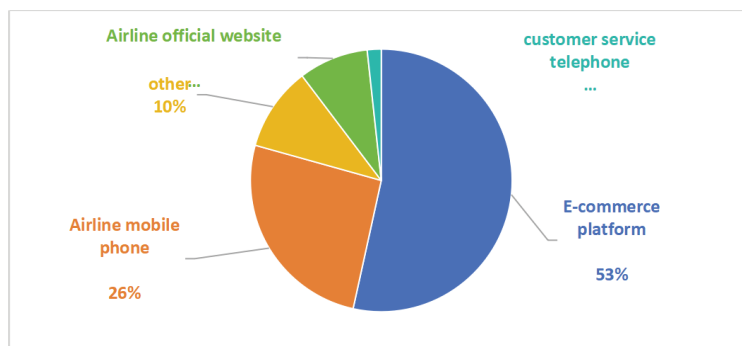
class management strategies. For example, overbooking and refund policies can be set in advance to ensure maximum seat occupancy on flights; Or according to the supply and demand of seats and the distance from the departure time, the refund rules and fees can be flexibly formulated in order to timely re-sell seats and reduce losses <sup>[7]</sup>.

### 5.6 Case Study: HNA Group’s Pricing Strategy

Hna Group is a well-known Chinese airline group that owns a number of airlines. Hna Group has successfully boosted its earnings by adopting a strategy of differential pricing and dynamic pricing. They rationally plan their route network, improve seat utilization, and attract a large number of passengers by providing quality service and personalized service experience. At the same time, HNA Group is also actively responding to changes in market demand, launching various promotional activities, such as “fly as you like” products, to attract more passengers to choose their own flights. These pricing strategies and practical cases provide useful reference for other airlines.

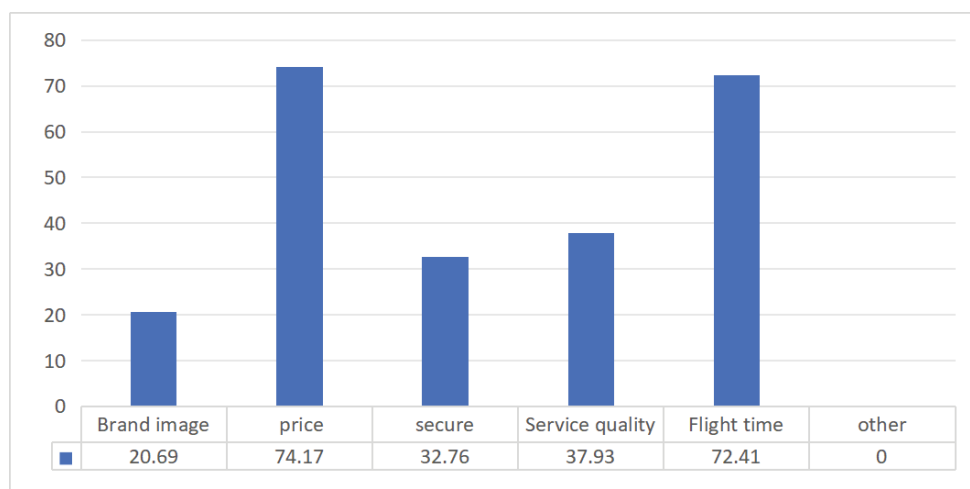
Hna Group achieves extensive sales of air tickets through direct sales (including APP, mini program, official website, call center, etc.), OTA platform, TMC, traditional agents, travel agencies and other sales models. This multi-channel sales strategy helps HNA better reach different customer groups and increase market share. Specific data can be seen in the chart below. (Data from “Research on Service Marketing Strategy of Hainan Airlines”, Li Hui, 2021)

Figure 1.1: The proportion of common ticket purchase channels



At the same time, HNA Group will also develop a refined pricing strategy based on market demand, competitive environment and passenger behavior. According to the market demand, the historical sales situation of each route is sorted out, and the relationship between the current transport capacity supply and passenger flow demand is combined to carry out dynamic pricing. According to the competitive environment, pay close attention to the pricing strategy of competitors, adjust their own prices in a timely manner, and maintain competitiveness. Starting from passenger behavior, this paper analyzes the regularities of purchase behavior such as advance purchase time and purchase preference, and formulates a pricing strategy that is more in line with passenger demand. Specific data can be seen in the chart below. (Data from “Research on Service Marketing Strategy of Hainan Airlines”, Li Hui, 2021)

Figure 1.2: Passenger purchase preference proportion



Hna Group's pricing strategy reflects its keen insight into market demand and flexible response to the competitive environment. Through the implementation of multi-channel sales strategy and refined pricing strategy, HNA successfully increased ticket sales and market share. In the future, as the aviation market continues to change and competition intensifies, HNA needs to continue to optimize its pricing strategy and strengthen its data analysis and market forecasting capabilities to better adapt to changes in market demand and passenger behavior. At the same time, HNA can also learn from the pricing strategies and practical experience of other successful airlines to continuously improve its pricing level and market competitiveness<sup>[8]</sup>.

## 6. Conclusion

Through the comprehensive analysis of market demand, competitive environment and passenger behavior, this paper discusses the optimization and practice of airline ticket pricing strategy. Through the implementation of dynamic pricing, differential pricing, bundling, promotional activities, cabin management and other strategies, airlines can make more scientific and reasonable ticket prices, improve revenue and market competitiveness.

However, as the aviation market develops further and competition intensifies, the formulation of ticket pricing strategies will become more complex and critical. Airlines need to continuously optimize pricing strategies to adapt to changes in market demand and improve market competitiveness. At the same time, airlines also need to strengthen data analysis and market forecasting capabilities in order to more accurately grasp the changing trend of market demand and passenger behavior, and formulate more accurate pricing strategies.

In the future, with the continuous development of big data, artificial intelligence and other technologies, airlines can use these technologies to optimize ticket pricing strategies. For example, using data analysis techniques to predict trends in market demand and passenger behavior; Through artificial intelligence technology to optimize shipping space management and price adjustment strategies. The application of these technologies will provide strong support for airlines to formulate more scientific and reasonable pricing strategies.

In short, the optimization and practice of ticket pricing strategy is an important means for airlines to maintain competitive advantage and maximize profits. Through the comprehensive use of market demand, competitive environment and passenger behavior analysis methods, airlines can develop more scientific and reasonable pricing strategies, improve revenue and market competitiveness. At the same time, with the continuous development of technology, airlines can also use big data, artificial intelligence and other technologies to optimize pricing strategies and improve the accuracy and efficiency of pricing.

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