

# The Best Strategy for Chinese Airlines to Achieve Optimal Allocation of Resources Analysis of Name Your Own Price strategy

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## ABSTRACT

Nowadays, the number of people's trips has been significantly reduced due to the impact of the epidemic. As one of the most important means for people to travel, airlines suffer more and more losses. The purpose of this study was to explore whether domestic airlines in China using the Name Your Own Price (NYOP) marketing model of Priceline company can achieve optimal allocation of the airlines' resources, that is, increase the boarding rate. Also, this paper reviewed the historical development of the marketing theory of the 4Cs and used the SWOT analysis method to analyze. This paper concluded that the NYOP marketing model of Priceline company can enhance the purchasing power of Chinese consumers. Therefore, Chinese airlines can refer to Priceline's marketing model -Name Your Price. As well as that, airlines must consider local Chinese culture. In this context, this article will also discuss the contribution, implication, limitations, and so on of this study.

**Keywords:** Chinese airlines, NYOP marketing model, 4Cs, SWOT analysis method.

## 1. INTRODUCTION

### 1.1 Background

Nowadays, with the rapid development of electronic technology, the 5G era has arrived, and the Internet has penetrated people's daily life. In terms of travel, people can book a ticket anytime and anywhere to travel wherever they want. Due to the outbreak of the epidemic, people have to travel less frequently to avoid virus infection. According to World Tourism Organization (UNWTO) reports, the number of global international tourist arrivals fell by 73% in 2020 [1]. As is known to all, airplanes are one of the main means of transportation for people to travel around the world. As a result, the reduction in the number of people's trips has greatly reduced the revenue of airlines. At present, various Chinese airlines utilize digital marketing such as promoting brands through live broadcast, launching a new model of air tickets on the app named "Flying as you wish", ticket blind boxes on the app and so on to attract consumers so as to increase the aircraft occupancy rate during the pandemic and reduce the losses of China's aviation industry.

Under the current situation, during the period of the epidemic, Chinese airlines still sell air tickets on various Internet apps based on the seller's pricing model. Although different kinds of digital marketing models that domestic airlines employ may boost consumer spending, most Chinese airlines are still at a loss. The buyer's pricing, which is one of the marketing models of Priceline company, has not been implemented in major airlines in China. This marketing model is called Name Your Own Price (NYOP) in Priceline company. As well as that, this marketing model is similar to the auction model. For example, when consumers buy the goods, they can bid. As the result, if the consumer's bid price was not lower than the lowest price set by the seller, the transaction could be made. At present, some scholars have done analysis and research on the impact of reverse pricing strategy on the air ticket industry. As well as that, some scholars have also done analysis on the marketing model (NYOP) of the Priceline company.

### 1.2 Research Gap

Although there has been a lot of research on the NYOP marketing model of the Priceline company and consumer reverse pricing, scholars have rarely studied various business models under the situation of the

epidemic. Also, people's travel has been restricted by various aspects such as the anti-epidemic policies due to the emergence of the epidemic in the past two years. As a result, the number of passengers traveling by plane is greatly reduced, especially international travellers, which has led to a substantial reduction in the earnings of the aviation industry. Therefore, under this circumstance, most domestic airlines in China have launched diverse kinds of online products to attract consumers such as "flying as you wish" and domestic ticket "blind boxes" introduced by China Southern Airline. Although these products can increase the number of passengers on board to a certain extent, there would be a waste of resources on every flight, such as availability of seats on the plane after the plane takes off.

Based on this kind of situation, this article proposes: If domestic airlines in China adopt the NYOP marketing model of the Priceline company, can Chinese airlines achieve optimal allocation of resources during the period of the epidemic? In terms of the research of this problem, the aim is to solve the problem of resource waste on the plane, in other words, how to increase the aircraft occupancy rate and reduce losses in the case of the epidemic.

However, there is little research studying on whether domestic airlines in China adopting the NYOP marketing model from the consumer's point of view can increase consumers' purchasing power or not. Therefore, this paper will fill in this gap.

### ***1.3 Structure of The Paper***

This study is to prove that Chinese airlines can increase the purchasing power of consumers if they adopt the marketing model of Priceline company. In order to verify whether the hypothesis is correct or not, the following qualitative analysis method is adopted in this article to prove it -the marketing mix theory is reviewed. As well as that, using the SWOT model and survey method to analyze. After obtaining the conclusion, there can be some recommendations for the future business model of air ticket sales in China's aviation industry.

## **2. LITERATURE REVIEW**

### ***2.1 Marketing Mix Theory***

#### ***2.1.1 Definition***

The term "marketing mix" was coined by Neil Bowden who is a professor at Harvard University in the United States after World War II in 1953 [2]. This term refers that companies ought to meet the needs of the target market, comprehensively consider various factors such as products, prices, promotions and so on to formulate corporate marketing strategies to better adapt to the changes in the market environment at that time-the

formation of the buyer's market and to better meet the needs and desires of consumers in order to obtain better economic and social benefits [2]. And then, E. J. McCarthy came up with the famous 4Ps in 1960, including product, price, place, and promotion [3]. In 1967 Philip Kotler further confirmed the marketing model with 4Ps as the core [4]. Entering the 1980s, the economy worldwide was moving towards a slow development, the market competition was becoming increasingly fierce, and political and social factors had increasingly more significant influence and restriction on marketing. Kotler once again proposed the "Mega Marketing" concept, that is to add 2Ps (politics and public relations) to the original 4P combination [5]. One of the main reasons is that companies need to learn how to work with other international and domestic companies in other countries [5]. As well as that, it is necessary for companies to understand their politics, which means other countries' politics [5]. At the same time, it is also essential for companies to know how to build a good corporate image, that is, to have good public relations [5]. As a result, companies can open up the market and get more profits. With the emphasis on marketing strategy plans and the increasingly fierce market competition, in order to cope with the complex and fierce market environment, in 1986, Kotler gave a speech at the University of International Business and Economics in China [6]. At that time, he proposed that in addition to the 6Ps of mega marketing, it should be added the strategic 4Ps, including probing, partitioning, prioritizing and positioning to form 10Ps [6]. In 1990, the American scholar Professor Robert Lauterborn put forward the 4Cs marketing theory corresponding to the 4Ps of traditional marketing theory [7]. The 4Cs marketing theory is oriented to consumers' demand in order to meet the needs and expectations of consumers [7]. At the beginning of the 21st century, in order to take into account both the interests of manufacturers and the needs of consumers, Don Shultz proposed the 4Rs combination based on relationship marketing, which is competition-oriented. The 4Rs marketing theory aims to provide a new framework for enterprises to formulate marketing strategies in a highly competitive market [8].

#### ***2.1.2 Important Results***

In Marketing Mix Theory, 4Cs marketing theory is developed based on 4Ps marketing theory. The big difference between the two marketing theories is that 4P theory is enterprise-oriented, while 4Cs theory is consumer-oriented. At that time, with the rapid development of the economy, technology, and the Internet, market competition became stronger. As the same time, the media spread faster and faster, 4Ps theory and other related theories were increasingly being challenged. According to the market situation at the time, Professor Robert Lauterborn who is an American scholar proposed that marketing should start from the consumer's

point of view, and thus put forward the 4Cs marketing theory [7]. Up to now, some companies still refer to the 4C marketing theory such as WalMart's fundamental corporate values: Customers are always right [9].

4Cs marketing theory includes Customer, Cost, Convenience and Communication.

**Customer:** it means the demand of the clients. For airlines, customers are passengers on airplanes. Putting this "C" (customer) in the first place also demonstrates that this marketing theory pays much attention to the Customer first. It is necessary for companies to consider the needs of consumers to provide products and services that are popular with clients. If necessary, companies can customize personalized products and services for people who pay for goods or services. And then, it is possible for companies to sell more products to clients.

**Cost:** In 4Ps marketing theory, "price" is similar to cost. Although both represent the price of the product, these two words-price and cost are different. The cost in 4Cs marketing theory is the purchase costs of the consumer, which includes not only the consumer's money expenditure, but also includes others aspects that the customer spends to purchase this product such as the time, physical strength, purchase risk and so on. In addition, the cost is one of the main considerations for the consumers to purchase goods. If a merchant sets a price far higher than consumers' expectations, it may impossible for consumers to purchase this product. Also, if the merchant has a lower price, it may make a temporary profit, but the company may not make a profit in the long run.

**Convenience:** It is essential for companies to put themselves in the shoes of consumers and think about how to make the whole process more convenient for them, which will help increase their loyalty. For example, customers can buy a certain brand of beverages anywhere. Companies provide door-to-door service and deliver goods home. This can improve the probability of customers choosing this product.

**Communication:** This "C" corresponds to "promotion" in the 4Ps theory. It means excellent and effective two-way communication between enterprises and consumers. Moreover, communication is customer-oriented. By constantly understanding the needs of consumers, companies are no longer just through promotion, but two-way communication during the sale, pre-sale and after-sales, which can give consumers an immersed purchasing experience. For companies, this is a long-term communication process between customers and enterprises.

### 2.1.3 SUMMARY

This article adopts 4Cs marketing theory as the theoretical basis for studying whether the NYOP

marketing model of Priceline company can optimize the allocation of Chinese airline resources or not. The main reason is that 4Cs marketing theory is a theory from the perspective of consumers. This article studies the problem of the resource waste of Chinese airlines from the perspective of consumers. The 4Cs marketing theory can provide suggestions for domestic airlines in China to make better marketing strategies during the epidemic. At the same time, the business philosophy of Chinese airlines, especially China Southern, focuses on passengers (consumers), which is consistent with the center of 4Cs marketing theory. Therefore, there may be a stronger proof that Priceline's marketing model - NYOP enhances the purchasing power of ticket consumers based on the 4Cs marketing theory.

## 3. METHOD

### 3.1 Research Design

The overall research method of this paper is qualitative research to explore whether domestic airlines in China adopting the NYOP marketing model of Priceline company can promote the purchasing power of consumers or not. This paper will use the SWOT analysis method and combine it with the results of the questionnaire to study the advantages, disadvantages, opportunities and threats of domestic airlines in China applying the NYOP marketing model of Priceline company. Meanwhile, the questions of the questionnaire are designed according to the 4Cs theory. One of the main reasons for using swot model analysis is that there is no airline in China using the NYOP marketing model. Through the analysis of this model, this paper can fully and accurately understand whether the marketing model is suitable for Chinese airlines and can be used for this kind of companies. As well as that, some suggestions can be provided for the development of domestic airlines in China in the future.

When using the SWOT analysis method, the data used are all original data. Since this research is aimed at the Chinese market -taking China Southern Airline as an example, all the respondents are from China and have all taken plane before.

### 3.2 SWOT Analysis

#### 3.2.1 Strength

**Customer:** As one of the three major airlines in China, China Southern has always adhered to the principle of "customer first" and provided customers with various high-quality services. Moreover, China Southern Airline, established in 1991, already had a certain number of customers in the Chinese domestic market. If China Southern Airline uses the NYOP marketing model, it would be the first airline in China to use this marketing

model, and consumers can arouse curiosity because of the new marketing model.

**Cost:** In other words, the NYOP marketing model is the buyer's bid. According to the questionnaire survey results, most consumers believe that the price change before departure is reasonable, and the price change of the air ticket is affected by the departure time of the plane (Table 1, Table 2). Therefore, using this marketing model can attract more price-sensitive consumers before the flight takes off. For example, consumers buy air tickets at a price they are satisfied with before the flight takes off (the price at this time is above the minimum transaction price specified by the seller and lower than the consumer's expectation). As well as that, when they buy air tickets next time, consumers would also want to use this method to obtain satisfactory services, which promotes consumer consumption.

**Table 1** The price change of the ticket before departure is reasonable.

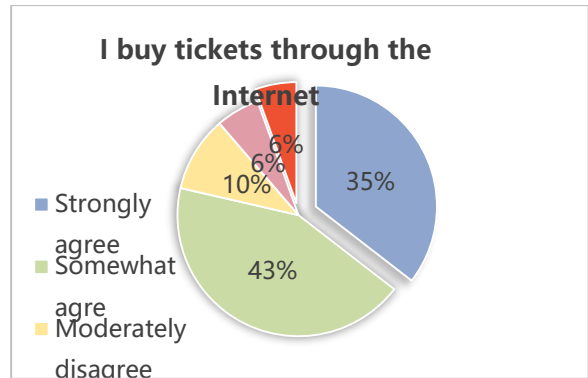
choice	Frequency	Percentage	Cumulative percentage
very much agree	77	23.55%	23.55%
relatively agree	118	36.09%	59.63%
generally rather	61	18.65%	78.29%
rather disagree	46	14.07%	92.35%
strongly disagree	25	7.65%	100.00%
total	327	100.0%	

**Table 2** Air ticket price changes are mostly affected by departure time of the plane.

choice	Frequency	Percentage	Cumulative percentage
very much agree	90	27.52%	27.52%
relatively agree	131	40.06%	67.58%
generally rather	53	16.21%	83.79%
rather disagree	34	10.40%	94.19%
strongly disagree	19	5.81%	100.00%
total	327	100.0%	

**Convenience:** According to the survey results, most consumers now purchase air tickets through the Internet

(Figure 2). If China Southern Airline uses the NYOP marketing model, in the 5G era, the Internet can allow consumers to use their mobile phones to bid for air tickets anytime and anywhere.



**Figure 1** I Buy Tickets Through The Internet

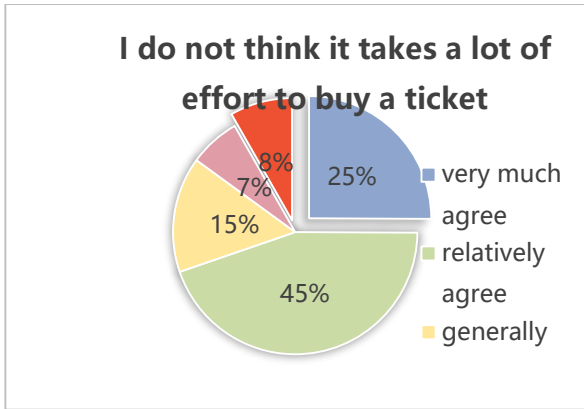
**Communication:** Under the existing marketing model of China Southern Airline, the NYOP marketing model can increase the richness of the marketing model. It enriches the way of communication between this company and consumers. At the same time, in the process of purchasing air tickets, each bid also can increase the fun of communicating with the company because it is possible for consumers to buy the air tickets they want at unexpected prices.

### 3.2.2 Weakness

**Customer:** If China Southern Airline applies this marketing model to attract passengers, although consumers can buy air tickets at low prices, some consumers may accept services they do not like. For example, passengers who have been taking planes that are not China Southern Airline would choose China Southern Airline. One of the main reasons is that the air tickets can be purchased at a low price.

**Cost:** There is price discrimination in this marketing model. As a result, consumer satisfaction may be reduced. For example, consumers may buy air tickets at unexpectedly low prices. However, in the next purchase, they may purchase at a higher price than the previous one. Moreover, each consumer may buy a ticket at a different price.

**Convenience:** The NYOP marketing model is a consumer bidding model. Generally, customers can bid three times. During the bidding process, there may be many steps. According to the results of the questionnaire, the current way of purchasing air tickets is more convenient (Figure 3). However, the NYOP marketing model will increase consumers' purchasing steps and reduce the convenience of purchasing.

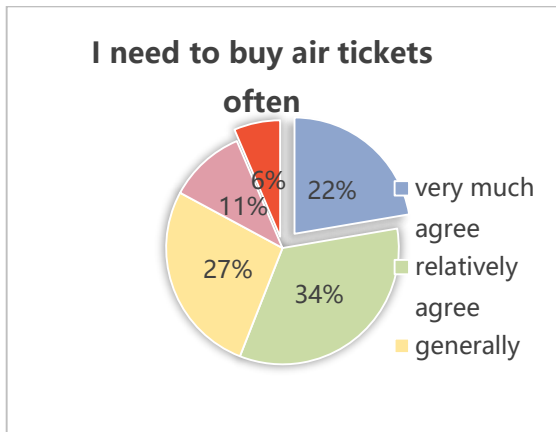


**Figure 2** I Do Not Think It Takes A Lot Of Effort To Buy A Ticket

Communication: At present, in this marketing model, consumers can only make bids through the Internet, and the number of bids is limited, which means that the communication between merchants and customers is limited. If the deal does not go through, it could lead to dissatisfaction among consumers because they cannot get their tickets at the price they expected.

3.2.3 Opportunity

Customer: In China, there is a large population, which means that the consumer market in China is relatively large. Moreover, the plane is one of the main means of transportation for people to travel. According to the survey results, most people need to buy air tickets frequently (Figure 4).



**Figure 3** I Need To Buy Air Tickets Often

Cost: Generally, consumers prefer high-quality and low-cost products. When people buy airline tickets, it is common to compare ticket prices between airlines. Price is usually one of the main factors for consumers to consider when purchasing an item. The NYOP marketing model can give people the opportunity to enjoy high-quality and low-cost services.

Convenience: At present, people have entered the 5G era, and people's lives are inseparable from the Internet. For the NYOP marketing model, the Internet is a

necessary condition to realize this marketing model.

Communication: The NYOP marketing model is relatively new to the Chinese market, and consumers may be more interested in this new communication method, after all, usually the seller bids.

3.2.4 Threatens

Customer: It may be a risky behavior to apply the NYOP marketing model to airlines in the Chinese market. The main reason is that Chinese people have been relatively conservative since ancient times. For those consumers with incomplete purchase information, compared with consumers in other countries, Chinese people are relatively less adventurous [10].

Cost: If merchants use NYOP's marketing model, consumers would consume too much energy, such as bidding multiple times. Also, they need to take a risk because they may not know the destination of the ticket they bought.

Convenience: At present, Chinese people are accustomed to the model of seller pricing, and sometimes they do not know how to bid, and what price is appropriate.

Communication: It is known that there are many marketing models, such as many promotions when Chinese people buy air tickets. According to the survey results, most people believe that they can enjoy various promotions (Table 3). This can make it difficult for the NYOP marketing model to quickly become popular with everyone in China.

**Table 3** There can be many promotions activities

choice	Frequency	Percentage	Cumulative percentage
very much agree	29	22.83%	22.83%
agree	50	39.37%	62.20%
relatively agree	26	20.47%	82.68%
generally, rather disagree	10	7.87%	90.55%
strongly disagree	12	9.45%	100.00%
total	127	100.0%	

4. RESULTS

Through the SWOT analysis method, it is clear to see the advantages, disadvantages, opportunities and threats of the NYOP marketing model applied by China Southern Airline. This marketing model is indeed a very novel model in China. At the same time, in the digital era,

people can use the Internet to experience the new marketing model, which can also add interest to the purchase process. Moreover, people can also purchase tickets at low prices. Therefore, if China Southern Airline uses the NYOP marketing model, it may greatly enhance the purchasing power of Chinese consumers. However, it is necessary for domestic airlines in China to see the drawbacks and threats of this marketing model. As well as that, it is essential for them to come up with a NYOP marketing model that is suitable for the Chinese market.

## 5. DISCUSSION

In terms of the results of this study: China Southern Airline applies the NYOP marketing models of Priceline company to enhance the purchasing power of Chinese consumers, indicating that the NYOP marketing model of Priceline company has great potential in the Chinese market. As well as that, the civil aviation industry that is more affected by the epidemic should continue to use the new marketing model to attract more consumers. Regarding the NYOP marketing model in the Chinese market, this model can provide new references for airlines. At the same time, the low price can also be a big highlight of this model. However, in terms of the application of the NYOP marketing model - taking China Southern Airline as an example and the questionnaire results, it is necessary for domestic airlines in China to consider China's local culture such as the Chinese conservative idea. Because Priceline's marketing model is a big success in the US market. As a result, the NYOP marketing model with Chinese characteristics is needed in the Chinese market.

This article is the first analysis of the NYOP marketing model applied to an airline, using the SWOT analysis method for analysis. As well as that, the research combines with 327 questionnaire results. The scholars have never studied this topic before. They just analyze NYOP marketing models or buyer bid models.

One of the limitations of this article is that the amount of data used is too small, only 327 copies. It is known that China's region is vast, and the consumer habits and consumption levels in different areas are different. Moreover, this article uses the SWOT analysis method. Maybe there are some subjective judgments. As a result, all aspects of the NYOP marketing model cannot be analyzed accurately.

## 6. CONCLUSION

This article is qualitative research on domestic airlines in China based on the marketing model of the Priceline company -NYOP under the background of the epidemic in China. As well as that, this research explores whether the marketing model of Priceline company - NYOP can optimize the allocation of resources of Chinese airlines or not, that is, whether the NYOP

marketing model can increase the passenger's boarding rate or not.

By arranging the historical development of "4Cs Marketing Theory", aiming at "Chinese airlines use Priceline marketing model", and using the SWOT analysis method combined with the questionnaire result to analyze the advantages, disadvantages, opportunities and threats.

The final conclusion is: The NYOP marketing model with low prices as its bright spot is likely to increase the purchasing power of Chinese consumers, thereby increasing the airline occupancy. This conclusion is the same as the hypothesis: the marketing model of Priceline company -NYOP can enhance the purchasing power of consumers. As well as that, in the discussion, this research suggests that if domestic airlines in China use Priceline's marketing model - NYOP, they should innovate in combination with Chinese culture, and create a NYOP marketing model with Chinese characteristics on the basis of the original marketing model (NYOP).

The contribution of this article is to provide a new marketing model for domestic airlines in China to refer to under the current epidemic. As a result, airlines can reduce losses. At the same time, this paper gives some possible suggestions for the future if airlines apply this new marketing model.

The implication of this research is to analyze the historical development of the 4Cs marketing theory as well as use the SWOT analysis method on the basis of the 4Cs theory to analyze an airline that operates the NYOP marketing model - China Southern Airlines as an example. Moreover, this paper verifies the practicability of the 4Cs marketing theory and SWOT analysis method in the field of marketing.

One of the main limitations of this article is based on the author's own summary analysis, which has subjective influence and belongs to personal opinions and evaluations. As well as that, the results of the questionnaire used in the article are only 327. As is known to all, China is a country with a large population. However, the survey sample is too small, which may not be universal.

A review of this research found that the research status of airline marketing models is not balanced enough, especially during the epidemic, whether the airline marketing model needs to be transformed or not, there are not enough studies. As well as that, there is not enough research on whether airline marketing models need to be innovative.

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