

# ***Study on the Influence of People's Travel Willingness Based on the Factors of Airline Ticket Price Change***

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**Abstract:** This essay takes the popular traveling destination: Dali, Yunnan, China, as an example and studies how the price changes of air tickets would affect the willingness of people to travel. A questionnaire survey was carried out and 88 responses were received, the focus group was people aged between 19-25 because this group is becoming the main consumption group of the tourism industry. The result shows with only a 30% discount on flight tickets between Shenzhen and Dali, it could bring 408,720 potential travelers every year, contributing to 252,852 hotel nights every year, CNY 138,229,128 income every year only for the hotel industry as well as CNY 8,293,748 tax income for the local government every single year. Later, this paper also analyzes the potential advantages and disadvantages after a price discount has been given to the tourists. It also gives recommendations to the tourism industry and the local government. This research is meaningful in helping the government and the tourism industry understand better to what extent the price of the air ticket influences people's traveling willingness, as well as have better predictions on the consumption preferences of future tourists.

**Keywords:** Air-tickets, Willingness, Tax, Tourists, Hotels

## **1. Introduction**

After the world had slowly recovered from COVID, the airline industry was one of the hardest Hiten industries because people traveled a lot less. According to data from ICAO, from 2020 to 2021, the airline industry lost up to 370 billion US dollars [1]. In the year 2023, the changes in the airline industry finally arrived while governments around the globe have slowly opened their borders to resume international travel. China, as one of the biggest markets in aviation, has also significantly recovered. However, it was reported that in China, air ticket prices were significantly higher than in 2022 [2]. The changes in ticket prices will significantly affect the willingness of people to travel. Until October 2023, the research on how much air ticket prices will impact the local tourism industry is still very limited.

This essay will take a popular destination: Dali, Yunnan Province, China as an example and analyze how much impact the price of the air ticket would affect the willingness of people to travel. The route between Shenzhen, China between Dali, China will be used as an example in this research. This essay aims to analyze the degree of impact of people's traveling willingness because of the price of air tickets, as well as help airlines have a better price-setting strategy.

## 2. Methodology

The research methodology of this paper is a questionnaire survey. The main focus group is people ages 19-25. A questionnaire was distributed with a simple random sampling method and 88 responses were received. Questions include but are not limited to personal income, how many friends or relatives will respondents travel with, how many nights they will stay in Dali if they go to have a personal trip, as well as most importantly: the air ticket price they would accept if traveling between Shenzhen and Dali.

## 3. Main Findings

Based on the data, 45% of the travelers are those aged between 19-25, this age group is also becoming the main consumption group of the tourism industry. Thus 94.32% of the data collected were consumers within this range [3].

It was found that until August 2023, only one route was operating between Shenzhen Baoan International Airport and Dali Airport, which is China Southern Airlines CZ8697. The configuration of the aircraft is Airbus A320 with 152 seat configurations [4].

Data from Southern Metropolis Daily shows that in March 2023, the average load factor (the ratio of how many people actually sit on a flight to the total number of seats) of China Southern Airlines was 74.07% [5]. If taking March which has 31 days as an example, it could be calculated that the monthly passengers between CZ8697 from Shenzhen and Dali might be 3,490.

With the data from Henry, 45% of tourists in China aged between 19-25, and this age group is becoming the main consumption group of the tourism industry. It could be calculated that monthly passengers on CZ8697 aged between ages 19-25 might be 1,571.

In China, taking China Southern Airline as an example, air tickets are sold in different “classes”, including class Y (Economy class of full-price); Class R (Classes with special discounts), as well as Classes with standard discounts. The survey gave respondents 3 choices: Full-price economy class of CNY 1,790, economy class of 30% discounts (CNY 1,253) as well as economy class of 50% discounts (CNY 895). In China, most air tickets are sold with discounts instead of full price.

Until August 2023, the ticket price of CZ8697 was CNY1,790 excluding fuel fee and airport construction fee. The ticket price data was selected based on the official website of China Southern Airline, to avoid the influence of travel seasons that the ticket price tends to be higher, the flight date of the ticket was chosen on date November 1st, 2023 [5].

According to the survey which was completed on August 18, 2023. It was found that with the age group between 19-25, only 6.82% of the respondents could accept the ticket price of CNY 1,790 (Figure 1).

Figure 1: The maximum air ticket price that respondents could accept between Shenzhen and Dali.

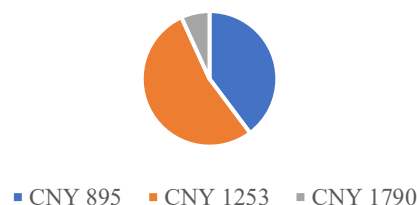


Figure 1: The maximum air ticket price could accept between Shenzhen and Dali.

According to Figure 1, the survey shows that up to 53.41% of the respondents aged between 19-25 could accept the price of a 30% discount (CNY 1,253). The result shows that there might be a total of 12,284 people will become potential travelers going to Dali every month.

The results show that if there is a 30% discount on the flight route Shenzhen-Dali, there might be up to 12,284 potential travelers ages 19-25 coming to Dali every month (The price of air tickets drops from CNY 1790 to CNY 1253)

During the survey, respondents were also asked about how many friends or relatives they tend to travel with, according to Table 1. The results show that 15.91% of respondents chose to travel alone, while 22.73% of the respondents chose to travel with 1 person. 37.5% of the respondents chose to travel with 2 people. Respondents chose to travel with 3 people accounting for 15.91% of the whole group, while 7.95% of the respondents chose to travel with 4 or more people.

This data is crucially important because most people don't travel alone, it could be calculated how many potential tourists could be brought to the destination: Dali.

Table 1: The total number of potential travelers ages 19-25 + the people they travel with.

Numbers of people respondents travel with	The numbers of respondents+The people they travel with
0 (Alone)	1,954
1	5,584
2	13,821
3	7,816
4	4,885
Total potential travelers every month	34,060
Total potential travelers every year	408,720

The results show there might be an additional 34,060 potential travelers coming to Dali every month or 408,720 potential travelers every year. During the survey, respondents were asked how many nights they tend to stay if visiting Dali. The results show potential travelers might stay up to 21,071 nights every month or 252,852 nights every year in the hotels, which will have a great contribution to the local hotel industry. According to Table 3, respondents have also been asked about the price of the hotel they are willing to stay in, the total amount of money they are willing to spend could also be calculated. The result is potential travelers might spend CNY 11,519,094 every month or CNY 138,229,128 every year in the local hotels (Table 2).

Table 2: The night's potential travelers ages 19-25 are willing to stay [6].

Numbers of nights	The percentage of the respondents
1	4.55%
2	19.32%
3	37.5%
4	19.32%
5	11.36%
6	2.27%
7	5.68%

Table 3: The maximum hotel price respondents ages 19-25 could accept [7].

The price of hotel respondents are willing to stay	The percentage of the respondents
200 yuan or below	4.55%
300 yuan	39.77%
500 yuan	26.14%
700 yuan	10.23%
900 yuan	11.36%
1,200 yuan	3.41%
1,600 yuan	1.14%
1,800 yuan or above	3.41%

As a result, with only a 30% discount on the flight route Shenzhen-Dali, it is possible that there will be CNY 11,519,094 of income for the hotel industry per month. Which is CNY 138,229,128 every year.

According to the official website of the Chinese government, the tax rate of the hotel industry is 6% currently [8]. It could be calculated with a 30% discount on the flight between Shenzhen and Dali, that the local governments could have an additional CNY 691,145.64 tax income per month, which will result in CNY 8,293,747.68 in tax income every year.

## 4. Discussions

### 4.1. Advantages

With only a 30% discount on flight tickets between Shenzhen and Dali, it might bring 408,720 potential travelers every year (ages 19-25), contributing to 252,852 hotel nights every year, CNY 138,229,128 income every year only for the hotel industry. It might also contribute to CNY 8,293,748 tax income for the local government every single year with only the income from the hotel.

Because direct flying is the easiest way for travelers to get from Shenzhen to Dali, cheaper direct flying tickets will attract more tourists from Shenzhen and tourists will be more likely to make Dali their final destination. Being a final destination means people might stay longer in Dali and create more profits for different kinds of local industries. If there is more demand between the route Shenzhen and Dali, airlines might be able to operate more flights every day in the future, which also contributes more income to the airlines.

### 4.2. Disadvantages

Based on the current situation, it is relatively hard for Dali airport to support more passengers. Dali Airport is a typical highland mountain airport, located in the northwest of Yunnan in the southernmost part of the Hengduan Mountains and the southern part of the Erhai Basin, the total topographic potential in the region is high in the northwest and low in the southeast [9]. Dali Airport is mainly affected by the plateau monsoon climate and belongs to the low-latitude plateau monsoon climate region [10]. Between November and April, Dali airport will be more likely to have higher wind speeds. [10]. Besides that, Different from the Kunming airport nearby which is a class 4F airport that could land wide-body aircraft. Dali airport is a 4C airport that only has one runway and could only land medium-size size Boeing 737-700 or Airbus A320 instead of large wide-body aircraft. In conclusion, this kind of weather condition and airport conditions means in a year, Dali airport it is relatively hard to meet the need for more passengers.

### 4.3. Limitations of the study

This study only focuses on age groups of 19-25, and there might be more potential tourists that could not be counted in the study. However, as the age group between 19-25 is becoming the main consumption group in the tourism industry, the focused age group is still meaningful in predicting the trend of the number of future tourists coming to Dali. Besides, there might be other age groups who will have smaller influences because of the price changes of the air ticket, but it is uncountable that lower price tends to attract more potential travelers from all age groups.

The second limitation is many tourists from Shenzhen will still go to Dali, but those tourists might first fly to Kunming at a lower ticket price and transfer to the high-speed rail. The number of tourists coming to Dali by high-speed rail from Kunming has reached 6,440,000 people, in this case, the calculations of potential tourists by air might be inaccurate [9]. However, direct flights at a competitive price are still the best way to attract tourists.

The third limitation is in the part of how many nights the respondents be willing to stay in a local hotel, It was calculated that every room would occupy 2 people, but this could not estimate the respondents who travel alone. In that case, 1 room could only occupy 1 person and slightly more demands for the hotel rooms might be applied.

### 5. Recommendations

The weather conditions are something that people cannot control, but the government of Dali could consider working with the airport and increasing the number of runways, expanding the size of the terminal, and increasing the number of airfields to meet more needs of the potential passenger demands in the future. If the airport condition is improved, the local government could consider working with the airlines, such as providing financial support to the airlines and providing discounts for the passengers to avoid the pain of paying for air tickets to attract more passengers.

To attract more tourists, the Dali government could try to learn from the Hong Kong S.A.R government and provide gifts and coupons to tourists.

Dali government could try to have a better cooperative relationship with all the major airlines in China and work on providing discounts for direct-flying passengers.

### 6. Conclusion

According to all the data and surveys, with only a 30% discount between the route Shenzhen and Dali, there might be an additional 1,408,720 potential travelers every year, (Only the people ages 19-25 as well as the people they travel with) which might contribute to 252,852 hotel nights every year, as well as contributes CNY 138,229,128 every year only for the hotel industry. Travelers could also contribute to CNY 8,293,748 tax income for the local government every single year. This additional amount of potential tax income could have a great contribution to the local government and allow the government to continue to improve infrastructure in Dali, which could benefit both tourists and residents. More income from the hotel industries could also attract more investors to invest in local hotels and other industries, bringing more positive economic impact to Dali. All the data and findings show that people's traveling willingness is strongly influenced by the factor of airline ticket price change.

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