

Customer Satisfaction Evaluation Study of YY Air Logistics Company

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<p>As the standard of living and quality of life of modern people continue to improve, people are increasingly using air logistics services as their first choice. Along with this change, the level of expectation for air logistics is getting higher and higher. The increasing number of air logistics companies also gives people more and more room for choice. Therefore, how to gain customers' trust by giving them improved logistics service quality, increasing customer satisfaction, and gaining customer loyalty so as to develop sustainably in the long run in a competitive market environment is the focus of air logistics business. In this paper, we analyze the current situation of YY air logistics company by using questionnaires, and analyze the factors that most affect customer satisfaction according to different factors such as occupation and economic level, and finally combine with hierarchical analysis model to determine the optimization plan of customer satisfaction, hoping to improve the service quality and customer satisfaction of YY company and play a reference role for similar enterprises.</p>	
Keywords Air logistics enterprises; customer satisfaction; improvement measures; questionnaire analysis method; hierarchical analysis method	

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1 Introduction

For the study of customer satisfaction evaluation of yy air logistics company, this paper will start with the background of the study, the significance of the study and the current status of the study, followed by some generalizations about customer satisfaction, and finally, the research methods that will be used and the methods of collecting the required relevant data will be presented, and the solutions to the existing problems will be proposed in response to the conclusions drawn.

1.1 Research Background

Air logistics has unique competitive advantages such as fast, safe and accurate, and is a way of modern logistics with air transportation as the main activity at the airport. According to statistics, in recent years, the air logistics industry is in the development stage, and its annual growth rate is more than 25%, contributing to the national economy. Given the changes in the world and the rapid development of the air logistics industry, the logistics industry is highly competitive, and the airline industry has become an indispensable and essential element with increasing importance.

In recent years, competition among airlines has intensified due to the growth of airlines. With the improvement of modern living standards and quality of life, customers are using more and more air logistics services and expecting more and more from air logistics, and more and more air logistics organizations have increased their choices. Therefore, how to win the trust of customers by improving good logistics, satisfaction and loyalty, and thus stand firm in the competitive market environment, focusing on long-term sustainable development. This paper uses questionnaires and hierarchical analysis to measure customer satisfaction and identify key drivers of customer satisfaction in YA air logistics companies, providing focus for the next phase of YA air logistics companies, which in turn will improve the market competitiveness of air logistics companies.

1.2 Research significance

The study of customer satisfaction in YY logistics airlines should not only address the common problems in the industry today, but also take into account the existing situation and operational characteristics of the company to maximize the use of available resources. Based on the questionnaire analysis method combined with the field survey, this project investigates the factors affecting the customer satisfaction of logistics airlines, then uses the hierarchical analysis method to rank each factor by analogy, so as to analyze and adjust each factor according to its importance ratio, and then determines the final customer satisfaction adjustment plan, and comes up with a reasonable and feasible plan for reference.

For a service industry like logistics and aviation, customer satisfaction and customer management is an indispensable and crucial part of modern service industry. Although the logistics airline industry in China has been developing steadily in recent years, taking into account the general environmental development and the influence of epidemic factors, it still reveals many problems that still need to be solved, resulting in low customer satisfaction and low service efficiency. Through the study of YY logistics airlines on the impact of customer satisfaction, the problems of logistics companies in the current service management model are studied and optimized management solutions are proposed based on questionnaire analysis and hierarchical analysis. It is expected to improve the service quality and customer satisfaction for YY Logistics Airlines, which in turn will help to improve the efficiency of the company and make the research meaning of this paper richer and more practical.

1.3 Current status of international research

Foreign research on customer satisfaction is a bit earlier, and the depth and breadth of their research have reached a certain depth. The results of their research have also been more widely applied.

Martin Kotus (2018) et al. used the Customer Satisfaction Index (CSI), indicating areas for improvement, and also showed that the level of customer satisfaction if the overall score of CSI is good, which means that despite the fact that customer satisfaction is hardly a problem, they are satisfied with the service points studied. Shahzad N (2018) considered the impact of employee motivation on customer satisfaction, the results showed that employee motivation and its four main components such as compensation and benefits, work atmosphere, organizational vision and management body have a significant positive impact on customer satisfaction. Direct interaction of industry employees with customers is highly correlated with the level of customer satisfaction. It is evident from the results of this study that compensation and benefits play a key role in employees achieving organizational goals and increasing customer satisfaction.

Miltiadis Chalikias (2019) analyzed the relationship between customer satisfaction and business profitability outcomes using correlation coefficients and regression models measured by the MUSA method. The findings support a positive relationship between the constructs of customer satisfaction and business profitability.

Alhamzah Alnoor (2019) analyzed the data collected from the questionnaire using SPSS21 and surface behavior had a significant direct relationship with both job satisfaction and customer satisfaction, while deep behavior had a positive relationship with both, and the findings support the mediating role of job satisfaction between surface behavior and customer satisfaction and deep behavior and customer satisfaction.

1.4 Current status of domestic research

Domestic research on customer satisfaction is later than foreign countries, but in recent years, as the importance of customer satisfaction has been gradually reflected, many excellent experts and scholars in China have also explored customer satisfaction in the service industry in depth and improved and optimized the traditional research methods to make them more widely used in practice.

In a study on the improvement of customer satisfaction with third-party logistics, Yang Ya (2018) based on game theory alliance is based on the main factors of customer dissatisfaction, timely arrival, good goods, inequality and communication. A study was conducted to improve on-time delivery, analyze the causes and suggest improvements, including focusing on changes in import information, strict control of contracts during transportation, and increasing service and safety awareness of drivers .

Hu Di (2022) proposed a logistics customer satisfaction measurement method based on review of big data. Firstly, a large number of online reviews were extracted from fresh produce e-commerce as the research object, and operations such as word separation were performed and the key factors of logistics satisfaction of fresh produce e-commerce and their weights were obtained based on TF-IDF algorithm, followed by the construction of a word vector model of logistics attributes, the construction of a sentiment analysis model to perform sentiment analysis of logistics-related reviews, the calculation of user satisfaction with each logistics attribute, and the customer satisfaction situation of different logistics attributes in the reviews were obtained satisfaction situation .

Jiahe Xu (2022) analyzed the potential relationship between customer satisfaction and customer loyalty. The study concluded that the nine indicators measuring product and service satisfaction had a positive impact on customer loyalty, but had a significant impact only on product maintenance services and customer service. In addition to customer maintenance services, product quality significantly affects customer loyalty in organizations engaged in information products in their main business, while primary services as well as product maintenance services also affect customer loyalty. Customer service services have a significant impact on increasing customer loyalty .

Liu (2023) proposed the influencing factors of customer satisfaction of JD Logistics B2C delivery service by interviewing internal personnel of JD Logistics, combined with literature combing, from four dimensions of delivery efficiency, delivery quality, delivery convenience, and service professionalism, and analyzed each influencing factor using hierarchical analysis to derive its weight distribution, and the results showed that delivery quality, especially customer information security The results show that delivery quality, especially customer information security, is the key factor affecting customer satisfaction,

which plays an important role in improving customer satisfaction of JD Logistics B2C delivery service.

In summary, the domestic research on customer satisfaction started relatively late, but developed relatively quickly. Scholars have studied customer satisfaction closely with certain industries and enterprises for certain specific fields, so there are no customer satisfaction models and measurement methods that are suitable for all industries in general. Through the domestic and foreign literature, there is relatively little literature on the research of customer satisfaction in logistics enterprises, and there is no literature on the research of customer satisfaction measurement system in aviation logistics enterprises. Therefore, this paper introduces customer satisfaction into aviation logistics enterprises under the background of vigorous development and fierce competition of aviation logistics industry, which can better promote the sustainable development of aviation logistics enterprises and improve the competitiveness of their enterprises.

1.5 Research Content

The first part of this paper is the introduction, which introduces the research background, significance, current status of domestic and international research and research content. The second part is an overview of related theories, describing customer satisfaction and air logistics companies. The third part is a survey study of customer satisfaction in YY air logistics company, designing questionnaires and analyzing them to explore the current situation of customer satisfaction in YY air logistics company. The fourth part is the analysis of the influencing factors of customer satisfaction in YY air logistics companies. The fifth part is the strategy to improve customer satisfaction of YY air logistics company and solve the current problems such as the overall service level of their company is not high and lack of advanced service concept.

2 Related Overview

Customer satisfaction is a quantitative description of the degree of customer satisfaction and a quantitative indicator of the level of customer satisfaction. The greater the customer perception is than the customer expectation, the higher the customer satisfaction, the greater the possibility of purchasing again, and the higher the economic profit obtained by the enterprise; the smaller the customer perception is than the customer expectation, the lower the customer satisfaction, the smaller the possibility of purchasing again, and the smaller the profit obtained by the enterprise.

2.1 KANO model analysis

The KANO model is a useful tool for classifying and prioritizing user requirements invented by Noriaki Kano, a professor at Tokyo Institute of Technology, and is based on the analysis of the impact of user requirements on user satisfaction, reflecting the nonlinear relationship between product performance and user satisfaction. Define customers' needs into three types: basic, expectation, and excitement. Basic needs are the basic functions that a product should have, which will create a feeling of dissatisfaction or dissatisfaction in the customer, if so, it is unsatisfactory, if not, it is unsatisfactory. The expected needs of customers are obtained through market research, and when the company provides products that are more responsive to the expected needs of customers, the more satisfied the customers will be, and vice versa. Sense of resentment. Exciting type is a product feature that the customer did not expect. If the company's product provides a passionate demand for the customer, the customer will be very satisfied, and conversely, the company's product does not provide a passionate demand, which does not make the customer unsatisfied.

2.2 Hierarchical analysis method

Hierarchical analysis, or AHP for short, is a decision-making method that decomposes the elements that are always relevant to a decision into levels such as objectives, criteria, and options, on the basis of which qualitative and quantitative analysis is performed. This method is a hierarchical weighted decision analysis method proposed by American operations researcher Professor Satie of the University of Pittsburgh in the early 1970s when he was working for the U.S. Department of Defense on the topic of "power distribution based on the contribution of each industrial sector to national welfare", applying network system theory and multi-objective comprehensive evaluation methods.

2.3 Quadratic model analysis method

The quadratic model, also known as the importance factor derivation model, is a diagnostic model that favors qualitative research. It first lists all the performance indicators of products and services through research and interviews, sets two attributes of importance and satisfaction for each performance indicator, and categorizes the factors affecting the satisfaction of the enterprise into four quadrants according to the customer's rating of the importance and satisfaction of the performance indicator, and the enterprise can deal with these factors separately according to the categorization results. If the company needs, it can also aggregate to get an overall customer satisfaction value of the company.

2.4 Air logistics companies

Air logistics is the main mode of air transportation, including not only the transportation of goods, but also the use of modern information technology, connecting the main body of supply and the main body of demand, effectively combining all aspects of air transportation, ground transportation, storage, loading and unloading, distribution and information of products from the main body of supply to the main body of demand, and participating in the whole process of customer logistics.

An "air logistics enterprise" is any legal entity that receives certain remuneration from airlines or shippers and specializes in air transportation, including receiving, booking, preparing orders, customs clearance, transporting or shipping goods, and providing various air logistics services for cargo owners and airlines. In this paper, an air logistics enterprise is an enterprise specializing in air logistics services or a subsidiary of a logistics enterprise specializing in air logistics services.

3 Customer Satisfaction Survey Analysis of YY Air Logistics Company

This chapter combines questionnaire analysis and Analytic Hierarchy Process to identify the key factors that truly affect customer satisfaction of YY Aviation Logistics Company, in order to provide solutions for them.

3.1 Survey Subjects

The questionnaire was distributed to customers who have used our air cargo service products, including corporate customers and individual customers. According to the survey, YY's corporate customers are mainly manufacturing companies, foreign trade companies, and freight forwarding companies. Personal customers are more scattered, with more than 40% placing orders through the Internet and the rest placing orders through telephone consultation and operational outlets.

3.2 Questionnaire design

The question design of this survey questionnaire is divided into two parts, the first part is the information of respondents' attributes, including the survey of respondents' gender, age, income and so on. The second part is the core content of this survey, which is mainly based on the secondary indicators in the air cargo logistics enterprise customer satisfaction measurement index system constructed in the article as the research content. The first-level indicators of customer satisfaction of air cargo logistics enterprises are selected: speed, price, goods integrity, communication and corporate image. And the second-level indicators are derived from each first-level indicator. The relevant scoring principles are shown in Figure 1, and the specific primary and secondary indicators satisfaction evaluation table is shown in the Appendix.

Scale	Meaning
1	Two factors are equally important
3	Indicator i is marginally more important than j

5	Indicator i is significantly more important than j
7	As an indicator, i is more strongly important than j
9	As an indicator, i is extremely more important than j
2、4、6、8	Scale values for intermediate states between the above judgements
Countdown	The judgment of factor i compared with j a_{ij} , then the judgment of factor j compared with i $a_{ji} = 1/a_{ij}$

Table1 Satisfaction evaluation form scoring details

The maximum eigenvalue λ_{max} of the judgment matrix and its corresponding eigenvector ξ are calculated, where the eigenvector ξ is calculated by the formula in equation (1). After normalization, it is noted as ω , and the elements in ω are the weight values of the relative importance of the elements of the same level to a factor in the previous level. $a\xi = \lambda_{max}\xi$

(1) When constructing the judgment matrix, sometimes logical errors occur, such as factor 1 is more important than factor 2, and factor 2 is more important than factor 3, but the situation occurs that factor 3 is more important than factor 1. Therefore, it is necessary to calculate the consistency ratio CR and conduct consistency test on the judgment matrix, and the calculation method is shown in equation (2). It is generally considered that when CR is less than 0.1, the consistency of the judgment matrix is acceptable. (2) The formula for calculating the consistency index CI is shown in equation (3). Generally speaking, the more the CI value tends to 0, the more the judgment matrix has satisfactory consistency. Where, λ_{max} is the maximum eigenvalue of the judgment matrix and n is the order of the judgment matrix. (3) The value of random consistency index RI is related to the order of the judgment matrix. In general, the larger the order of the matrix, the greater the possibility of random deviation of consistency, and its value is shown in Table 2.

Number of steps	RI
1	0
2	0
3	0.52
4	0.89
5	1.12
6	1.26
7	1.36

Table 2 Average consistency index RI values

3.3 Survey Results

In this paper, the developed survey questionnaire is distributed to the circle of friends through QQ, WeChat, etc. For customers who place orders on the company's official website, the survey questionnaire is distributed to their mailboxes, and friends, netizens, and customers are invited to fill out the survey. Although the accuracy and validity of the

network survey method will be reduced, but the efficiency, low cost, to obtain more data resources. In addition, also adopted the method of retention questionnaires, is to ask the company's staff to pick up or delivery of goods at the same time so that customers help fill out the questionnaire, so that the company's real customers can guarantee the reliability of the questionnaire and the quality of the survey.

3.3.1 Basic information

The survey issued a total of 130 questionnaires, mainly through the enterprise field research questionnaire distribution, and the A air logistics company network order customers issued network questionnaire way. 128 valid questionnaires were recovered, and the questionnaire recovery efficiency was 98.5%.

Features	Classification	Number of people	Percentage
Gender	Man	63	49%
	Woman	65	51%
Age	18-24	30	23%
	25-30	83	64.8%
	31-40	11	8.6%
	>41	4	3.6%
Education Level	College and below	34	26.6%
	Undergraduate	67	52.3%
	Master and above	27	21.1%
Monthly income	Under 2000 RMB	32	25%
	2001-3500RMB	46	35.9%
	3501-5000RMB	33	25.8%
	Above 5001RMB	17	13.3%

Table 3 Sample characteristics

As shown in Table 3-1, from the gender structure of respondents, among 128 questionnaires, there are 63 and 65 males and females respectively, with the respective proportions of 49% and 51%, basically reaching a balance; from the age distribution of respondents, the age stages are classified into 18-24 years old, 25-30 years old, 31-40 years old, and 41 years old and above, among which there are 83 respondents aged 25-30 years old, with the proportion of 64.8%, this stage of age group, is the most use of logistics services; from the respondents' education level structure classification, divided into college and below, bachelor, master and above, where the proportion of bachelor, master and above are 52.3%, 25%, respectively, with the higher education policy from elitist to mass transformation, most of the respondents have a higher level of education,

most of the respondents have a higher level of education high; from the monthly income of the respondents, it is divided into less than 2000 yuan, 2001-3500 yuan, 3501-5000 yuan, and more than 5000 yuan, and the proportions are 25%, 35.9%, 25.8%, and 13.3%, respectively, except for less than 5000 yuan, the rest are relatively average.

3.3.2 Customer satisfaction level analysis

The following primary and secondary indicators are all from reference literature and are rated by experts.

Tier 1 Indicators	Indicator Source	Secondary indicators	Indicator Source (reference)
Speed	[5]	Shipping Speed	[5]
		Order Response Speed	[5]
Price	[5]	Package Price	[5]
		Shipping Price	[5]
The goods are in good condition	[8]	Quality of goods packaging	[8]
		Safe placement of goods	[8]
Communication	[8]	Order confirmation communication	[8]
		Communication on after-sales issues	[8]
Corporate Image	[8]	Corporate reputation	[8]
		Quality of corporate employees	[8]

Table4 Level 1 index weights

Customer satisfaction	Speed	Price	The goods are in good condition	Communication	Corporate Image	Weights
Speed	1.500	1.667	1.333	0.429	0.500	21.255%
Price	2.500	1.000	0.500	0.571	0.667	16.643%
The goods are in good condition	3.000	2.500	1.667	0.857	1.000	26.802%
Communication	2.000	1.000	1.000	1.286	1.500	13.802%
Corporate Image	1.333	1.750	0.778	1.000	1.167	8.934%

Table 5 Customer satisfaction level evaluation index weights

According to the ranking from high to low to see the weight of the five dimensions, in order: goods intact, speed, price, communication, corporate image. The customer's requirement for corporate image is not very high, mainly pursuing the safe transportation of goods to the destination; the customer's requirement for goods integrity rate is high, and is more willing to choose the service facilities with goods safety measures and good packaging; the price factor and the weight of effective communication are not very different, the general price of air logistics will be faster than ordinary logistics, effective communication is to ensure that customers can communicate with related services before transportation, and if there is an after-sales Problems can be quickly communicated to solve.

3.3.3 Secondary indicator weights

Secondary indicators	Weights
Shipping Speed	0.02911
Order Response Speed	0.03877
Package Price	0.02211
Shipping Price	0.02770
Quality of goods packaging	0.02562
Safe placement of goods	0.01935
Order confirmation communication	0.02082

Communication on after-sales issues	0.02776
Corporate reputation	0.01603
Quality of corporate employees	0.01388

Table 6 Secondary index weights

As the table shows, the items with higher weight are: order response speed, delivery speed, after-sales communication, delivery price, and goods packaging. From the data, since customers choose air logistics transportation, their choice is mainly based on the speed of air logistics, so the weight of delivery speed and order response speed is higher. Secondly, logistics can not guarantee the integrity of the goods, in the case of damage, customers hope that after-sales communication can play a role, in order to avoid or reduce the damage to the goods, even before transportation of goods packaging plays a big role, so customers also attach great importance to the packaging of goods, the weight of goods packaging is higher. Many air logistics companies in order to seize the market share, will send concessions in various holidays, in terms of price will be reduced; although the price of air logistics than other logistics methods are higher, but customers also want to use less price to complete the safe transport of goods, therefore, the delivery speed weight is greater. The weighting of enterprise reputation and enterprise staff quality is not much different.

3.3.4 Weighting of secondary indicators of different dimensions

Speed Dimension	Shipping Speed	Order Response Speed
Shipping Speed	1.0000	1.6000
Order Response Speed	1.1250	1.0000

Table 7 Speed Dimension

item	Eigenvector	Weighting value	Maximum Eigenvalue	CI value	CR value
Shipping Speed	0.771	15.418%	5.004	0.001	0.001
Order Response Speed	0.838	16.751%			

Table 8 AHP hierarchical analysis

The results of the AHP hierarchical analysis were measured by the software: the maximum eigenvalue was 5.004, the corresponding eigenvector normalized by column was (0.771, 0.838), the CI value of the consistency index was 0.01, and the CR value of the test coefficient was 0.001. In the speed dimension, the weight of the order response speed was slightly higher than that of the delivery speed, and the customers thought that the order receiving speed before delivery was critical and could indirectly affect the overall image of the company. can indirectly affect the overall image of the company.

Price Dimension	Package Price	Shipping Price
Package Price	1.0000	0.7778
Shipping Price	1.5001	1.0000

Table 9 Price Dimension

item	Eigenvector	Weighting value	Maximum Eigenvalue	CI value	CR value
Package Price	1.193	25.477%	6.609	0.122	0.097
Shipping Price	1.739	28.985%			

Table 10 AHP hierarchical analysis

Through the software measurement to learn the AHP hierarchical analysis results: the maximum eigenvalue is 6.609, the corresponding normalized by column eigenvector is (1.193, 1.739), the consistency index CI value is 0.122, the test coefficient CR value is 0.097, judged to have passed the consistency test. In the price dimension, the weight of the delivery price is higher than the weight of the packaging price, there are many customers think that since the delivery cost is charged, the packaging cost can not be added, but according to the requirements of the air ho loading, many items in transit will be a series of damage, part of the reason is that the packaging is not qualified, so in the packaging will be more robust material packaging, so there will be packaging costs, so the packaging On will charge a certain fee.

Communication Dimension	Order confirmation communication	Communication on after-sales issues
Order confirmation communication	1.0000	0.8889
Communication on after-	1.1250	1.0000

sales issues		
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Table 11 Communication dimensions

item	Eigenvector	Weighting value	Maximum Eigenvalue	CI value	CR value
Order confirmation communication	1.455	24.242%	6	0	0
Communication on after-sales issues	1.636	27.273%			

Table 12 AHP hierarchical analysis

The results of AHP hierarchical analysis were learned through software measurement: the maximum eigenvalue was 6, and the corresponding normalized eigenvector by column was (1.455, 1.636), the CI value of consistency index was 0, and the CR value of test coefficient was 0. It was determined that the consistency test was passed. In the communication dimension, the weight of after-sales problem communication is higher than the order confirmation communication weight. The communication of customers will increase when there is a damage problem in the transportation of goods, and there is more communication for goods claims, refunds, etc. The communication of order confirmation before delivery is the request and confirmation of price, packaging, etc.

4 Key Factors Affecting Customer Satisfaction at YY Air Logistics

This chapter identifies the key factors that truly affect customer satisfaction at YY Aviation Logistics Company, as identified earlier. They are shipping speed, price factor, integrity of goods, effective communication and corporate image.

4.1 Shipping Speed

Compared with other logistics services, the biggest feature of air logistics is the speed of shipping goods, people's expectations with air logistics services are relatively high, so air logistics companies should combine efficient and fast ground transportation and delivery, fully play this advantage of fast to the maximum, to avoid disappointment because of high customer expectations of speed, resulting in a decline in satisfaction.

4.2 Price Factor

Customers pay a certain amount of money for the air logistics services they receive, known as price. In the modern market economy, customers seeking more personalized services will not only be measured by a single price, but more by the cost performance, a comparison between the service obtained and the price or a price comparison with other similar logistics services, and finally determine whether the price is appropriate.

Specifically, the following:

(1) Comparison between the services provided by the company and the price. The customer compares the quality of service and the feeling of service that the company can provide with the price to see if it is worth the price and to arrive at the cost performance ratio.

(2) Comparing the price with the same industry. Customers will not only pay attention to the price of the chosen enterprise, but also pay attention to the price of the same service in similar industries, to compare whether the price set by the enterprise is reasonable. Therefore, air logistics enterprises should pay attention to the standards of the same industry when setting the price of logistics services on the basis of accounting for the operating costs and services of the enterprise, in order to avoid affecting the satisfaction of customers because of high prices.

Perceived value refers to the overall feeling of the customer after comprehensive consideration of the quality and price of logistics services provided by the air logistics enterprise. That is, the quality of the product or service, personnel value, image value / price = value for money, in this comparison process customers form a subjective feeling, leaving behind the original old concept of comparing only quality or only price, on the basis of perceived quality added to the evaluation factor of price, so that customers come up with an overall feeling. The higher the customer's perceived value, the higher the satisfaction, and the smaller the perceived value, the lower the satisfaction; the better the

image of the air logistics company, the higher the perceived value, and vice versa, the smaller the satisfaction; the higher the perceived quality, the better the customer's feeling after using the product, and the higher the satisfaction, and vice versa, the lower the satisfaction. Therefore, in this model, perceived value is positively related to customer satisfaction, air logistics enterprise image, and perceived quality.

4.3 Integrity of goods

When providing logistics services, air logistics companies ensure that there is no artificial (except for unavoidable external factors) damage to the goods, reduce the rate of damage to the storage and damage to the transportation process, and ensure the quality of service. Perceived quality, as the actual feeling of customers after using the product or service quality, has a very strong relationship with customer satisfaction, is an important factor affecting customer satisfaction, and the higher the perceived quality, the higher the satisfaction, and vice versa, the lower the satisfaction, the two are positively correlated.

4.4 Effective Communication

Communication includes, on the one hand, between different departments within the air logistics enterprise, between different outlets and between different management levels, and on the other hand, communication channels and frequency between the enterprise and customers, timely rate of customer complaint handling, satisfaction rate of customer complaint handling, timely update rate of cargo tracking, information feedback, etc. Our present study focuses on the customer satisfaction measurement system of air logistics enterprises, and these factors are the key factors affecting customer satisfaction. If the communication between the enterprise and the customer is timely and effective, the customer complaints can be transformed into customer loyalty and customer satisfaction can be improved in time. These factors will be used as important indicators for the study of measurement system.

4.5 Corporate Image

The enterprise's reputation, value concept, cultural concept, staff quality, etc. are all corporate image. Only by shaping a good corporate image can the enterprise form a good subjective impression in the customers' mind, which are the key factors affecting the customer satisfaction of air logistics enterprises. Corporate image and customer expectations have a very strong correlation, customer expectations generally come from the customer's perception of the enterprise, and the perception comes from the image of the enterprise, that is, the customer's perception of the enterprise's image before purchasing the enterprise's products or services, which is the overall impression of the

enterprise. When the higher the cognition, the better the impression, the higher the expectation of the enterprise, and vice versa, the lower it will be. Therefore, this thesis takes the image of air logistics enterprises as an exogenous latent variable of customer satisfaction of air logistics enterprises, and the image of enterprises is positively correlated with customer satisfaction.

(1) Reputation of the enterprise. Enterprise reputation is the synthesis of enterprise's social behavior recognized by the society so that it can obtain resources, opportunities and support, and thus can obtain value creation ability. The enterprise's reputation includes product quality reputation, service reputation, financial reputation, business reputation, etc. The enterprise's reputation affects customer satisfaction, and for the research of customer satisfaction measurement system of air logistics enterprises, the aspect of enterprise's reputation should be taken as an important measurement index.

(2) Enterprise value concept. The behavior of the enterprise is completed under the guidance of the value concept, which is the core of the enterprise culture. A positive and healthy corporate culture inevitably assumes basic social responsibilities and obligations, tightly connecting social responsibility, employee value and corporate value, and ultimately realizing the unity of corporate value, employee value and social value.

(3) Employee quality. Enterprise values, culture, etc. are ultimately delivered to customers through the services of employees. For air logistics enterprises, the services of employees directly facing the dispatchers are the most direct feelings that customers can experience. If the enterprise has been promoting the corporate culture, values and staff service attitude shown diametrically opposed, then the enterprise's propaganda are failures, people tend to believe that they see with their own eyes, personally experienced. Therefore, high quality staff, skilled operation skills and good service attitude are the key factors to make customers satisfied.

5 Customer Satisfaction Improvement Strategy of YY Air Logistics Company

This chapter serves as the final section of the article, aiming to address the existing problems of YY Aviation Logistics Company and provide different solutions based on the real influencing factors determined by the questionnaire analysis results.

5.1 Strengthen cost control and establish a competitive price system

Enterprises should pay more attention to the various costs and management of the enterprise, as far as possible to reduce the price of services and improve customer satisfaction. With the development of China's air logistics, more and more companies such as SF, China Southern Airlines and other companies have begun to develop air logistics, the market competition is becoming increasingly fierce, whether individual or corporate customers will be in the safety, speed, service and price trade-offs between, in order to increase customer satisfaction, enhance competitiveness, enterprises must strengthen cost control, the development of a competitive price system as the primary task of improvement. And promptly pay attention to changes in industry price standards, reference to the same industry pricing strategy, timely updates to avoid the impact of high prices on customer satisfaction. For enterprise large customers can develop large customer discount preferential program, according to the volume, loyalty, payback records and other ways to develop ordinary large customer membership, gold customer membership, platinum customer membership. Air logistics enterprises based on the industry and market demand, combined with the cost of enterprise logistics services, while comparing with the price system of the same industry, pay attention to industry standards, the development of enterprise freight service price system. To avoid affecting customer satisfaction because of high prices.

5.2 Strengthen information technology construction

A large part of the development advantages and competitiveness of air logistics enterprises is obtained through a high degree of information technology, and enterprises must establish an efficient and smooth information channel, and ensure the smooth flow of logistics channels by seamlessly connecting all operational aspects of the enterprise. Through the introduction of advanced logistics information technology, the efficiency of air logistics enterprises in collecting information, transmitting information and processing information can be greatly improved, which in turn can reduce the cost of air logistics enterprises. Although in a short period of time, the introduction of advanced logistics

equipment, information systems have great difficulty, information technology personnel is also difficult to find, but from the long-term development, information technology can reduce the cost of the use of enterprises, the choice of information systems, technology, business processes and other suitable for the operation of enterprises is an inevitable choice for long-term competitive advantage.

To this end, enterprises should investigate customers' needs for information sharing, information tracking, etc., and carry out information system upgrades so that customers can be tracked at all times via the Internet and smartphone terminals, and be reminded of cargo information updates via WeChat and e-mail. The convenience of information tracking for customers can be improved at a small cost, thus increasing satisfaction. For enterprise customers, virtual channels can be established with their own enterprises, enterprise manufacturers and suppliers to establish information sharing and implement tracking logistics links, which can greatly reduce enterprise inventory and capital costs, improve operational efficiency, and thus improve service levels and customer satisfaction.

5.3 Enhancement of service quality

The customer's rapid response to the handling of complaints, that is, after-sales issues communication affects satisfaction. For individual customers, the first thing is to optimize the price of enterprise services by means of management optimization and cost reduction; then it is to continuously optimize and improve the quality of services through staff training, establishment of perfect service quality assessment and corresponding reward and punishment mechanisms to ensure the integrity of the goods in the process of transportation; finally, to communicate with customers, establish a complaint system and standardize complaint procedures, and actively encourage customers to complain and make complaints. Through complaints and complaints to find out which services customers are not satisfied with, the reasons for complaints, and then quickly solve these problems, the establishment of 24-hour customer complaints feedback mechanism, for small problems can be solved in a timely manner in 24 hours to solve the problem, 24 hours can not be solved in a timely manner to inform customers of the date and commitment to solve, and explain the reasons, for urgent problems to give a reply within an hour.

5.4 Improve the quality of service personnel

The quality of the enterprise personnel, especially the quality of the service enterprise personnel, directly determines the quality of the enterprise services and affects the satisfaction of the enterprise customers. In the process of calculating the questionnaire results both individual customers and corporate customers have a... degree of dissatisfaction in terms of the completeness of cargo transportation, friendliness and

courtesy of the staff, the number of customer consultations and the frequency of customer visits. A certain degree of dissatisfaction, which ultimately leads to a low degree of customer satisfaction. For this reason, the enterprise should sort out and enhance service consciousness, strengthen service personnel quality training, establish effective and strong service quality consciousness among all employees of the enterprise, convey the enterprise business philosophy of "customer first, quality first" to employees at all levels, and make employees fully aware of the fact that the quality of service, work effect, enterprise Economic benefits, their own interests are closely linked, and then from the deep consciousness of the staff to establish the concept of improving service quality. Second, to develop specific, clear and detailed service quality standards, to provide norms and basis for business activities, to establish a standard code of conduct for employees, so that employees can accurately grasp the service standards, service norms. Third, choose an effective staff training method. For different types of employees, different training programs are developed according to job responsibilities and requirements for the abilities and qualities they should have.

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Appendices

Customer satisfaction questionnaire about YY Air Logistics

Dear Madam/Mr.

I am an undergraduate student majoring in aviation logistics at Chongqing Institute of Science and Technology. For my thesis research and to improve the service quality of YY Air Logistics, we are conducting a customer satisfaction survey. This questionnaire is anonymous, and the data collected will only be used for customer service management and academic research, and does not involve customer privacy or data leakage. Thank you very much for your help in your busy schedule. Thank you!

Scoring principles:

Scale	Meaning
1	Two factors are equally important
3	Indicator i is marginally more important than j
5	Indicator i is significantly more important than j
7	As an indicator, i is more strongly important than j
9	As an indicator, i is extremely more important than j
2、4、6、8	Scale values for intermediate states between the above judgements
Countdown	The judgment of factor i compared with j a_{ij} , then the judgment of factor j compared with i $a_{ji} = 1/a_{ij}$

I. Personal situation, please tick after the option according to your actual situation

Gender: Male Female

Age group: 18-24 years old 25-30 years old 31-40 years old 41 years old and above

Education level: College and below Bachelor Master and above

Monthly income: below 2000 2001-3500 3501-5000 5001 or more

Second, the index scoring

Customer Satisfaction	Speed	Price	Goods in good condition	Communication	Corporate image
Speed	1				
Price		1			
Goods in good condition			1		
Communication				1	
Corporate image					1

Customer satisfaction evaluation form

Speed	Shipping Speed	Order Response Speed
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Shipping Speed	1	
Order Response Speed		1

Speed Dimension Evaluation Form

Price	Packaging Price	Shipping Price
Packaging Price	1	
Shipping Price		1

Price dimension evaluation table

Goods integrity	Quality of goods packaging	Safe placement of goods
Quality of goods packaging	1	
Safe placement of goods		1

Goods complete dimensional evaluation table

Communication	Order confirmation communication	After-sales communication
Order confirmation communication	1	
After-sales communication		1

Communication Dimensional Evaluation Form

Enterprise image	Enterprise reputation	Enterprise staff quality
Enterprise reputation	1	
Enterprise staff quality		1

Corporate image evaluation form