



Research on Differentiated Competition Strategy of Air Cargo Business of Shuangliu Airport

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Abstract

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Abstract <p>Shuangliu Airport is a key airport connecting the east and west wings, and is the largest aviation hub in Southwest China. Shuangliu Airport has become the most promising airport in southwest China because of its favorable geographical location and conditions. But there are still some gaps compared with international airports in cities such as Beijing and Shanghai. In addition, there have been some problems in the air cargo business of Shuangliu Airport in recent years, resulting in poor market competitiveness. Facing the increasingly fierce market competition and the increasingly diversified needs of cargo owners, it is imperative to formulate corresponding competitive strategies to enhance the competitiveness of air cargo business of Shuangliu Airport.</p> <p>Firstly, through literature research, using theory and analytical tools, the research status at home and abroad is briefly reviewed and summarized. Then, questionnaire survey was conducted on airport management personnel, core employees and cargo owners to comprehensively understand the status quo of air cargo business of Shuangliu Airport and summarize the main problems. Secondly, this paper analyzes the internal and external environment of air cargo business of Shuangliu Airport, and uses PEST tool to analyze the macro environment of air cargo business of Shuangliu Airport. Porter's five forces model is used to analyze the competitive environment of air cargo business in Shuangliu airport. Finally, SWOT analysis is used to identify the advantages, disadvantages, opportunities and threats of air cargo business development at Shuangliu Airport, and SWOT matrix is constructed. The analysis shows that Shuangliu Airport cargo should integrate various strategic advantages, through expanding the cargo market, strengthening the construction of the main trunk, promoting the construction of the cargo base, strengthening the brand operation management and other strategic implementation plans, from the channel, product, service, brand four aspects of the implementation of differentiated competition strategy.</p> <p>According to the development status of Shuangliu Airport, combined with the actual situation of Shuangliu Airport, the paper formulates the differentiated competition strategy and implementation plan of air cargo business. First of all, it is conducive to Shuangliu Airport to find the right positioning, seize the development opportunity, clear the development direction, in the face of fierce market competition and strong competitors, can be the first to achieve sustainable profits. Secondly, this paper also has a certain reference value for the strategic formulation and development of other airports. While promoting the cargo development of Shuangliu Airport, it also encourages other airports to gradually improve their own systems, operation modes, management systems and other issues, so as to facilitate the overall orderly development of civil aviation cargo industry. Finally, by developing air cargo, strengthening international cargo exchanges, strengthening international communication and exchanges, our economy will continue to grow and contribute to our national construction.</p>
Keywords Air cargo business; Core competence; Differentiation strategy

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1 Introduction

This chapter first introduces the research background, research questions, purpose and research significance, and summarizes the theoretical research on air cargo at home and abroad, and finally introduces the main content and methods of the research.

1.1 Research background

Air freight is particularly important in modern logistics, and the services it provides have the advantages of high safety factor, convenience and fast. Air cargo is widely used to transport fresh and perishable goods, valuable goods, precision instruments and other goods with high added value because of its fast speed, high safety factor, not restricted by the ground transportation environment, large space span and high transportation accuracy. The main process of air freight is in the form of centralized consignment or entrusted freight forwarder. The goods transported to the destination are delivered to the consignee by the relevant person of the air freight forwarder at the place of shipment.

Aviation logistics industry of our country has made great development in recent years, but a lot of problems are exposed. There is still a big gap between the service level, transportation efficiency and platform informatization construction of air cargo and the current economic development and consumer demand of the people. At the same time, it is necessary to constantly improve the layout of aviation facilities, optimize the transportation environment and improve the transportation efficiency in order to face the higher requirements brought by the structural changes of air cargo sources. In the process of epidemic prevention and control in 2020, deficiencies in the air cargo system were exposed. During the epidemic prevention period, China's air cargo transport routes were almost interrupted, and the transport capacity decreased by 70 percent or more.

In order to ensure the stability of the transport market, the Civil Aviation Administration systematically and comprehensively sorted out the air transport process. From the perspective of enterprises, it further promoted the reform of "regulation and service" and formulated various policies and regulations. This provides strong support for the solution of some long-standing problems in our air cargo industry. It is good for the enterprises related to the air cargo service chain in the short and long term. It points out the direction and brings the opportunity for the development of air cargo.

1.2 Research question and purpose

Shuangliu Airport is one of the important airports in southwest region in our country, it is the key airport that connects east and west wings. However, while there are many good development opportunities, the air cargo business of Shuangliu Airport also faces challenges in its development.

First of all, the air cargo capacity of Shuangliu Airport only ranks the top among airports in southwest China, and there is still a big gap compared with international airports in first-tier cities such as Beijing and Shanghai. Secondly, other airports of the same level around Shuangliu Airport have a good development trend and may catch up with Shuangliu Airport's air cargo at any time. These airports have the same geographical advantages and hinterland economy as Shuangliu Airport, and the competition with Shuangliu Airport is increasingly fierce. Finally, due to the rapid development of highways, railways and waterways (relying on ports), Shuangliu Airport has to compete not only with the same type of air transport, but also with different types of transport. It becomes particularly important for the air cargo of Shuangliu Airport to seek advantages and avoid disadvantages in this environment full of challenges and opportunities, and to give full play to its advantages to adapt to the future market.

In the context of global economic downturn, epidemic and political uncertainties, how can Shuangliu airport cargo further improve its capacity and competitiveness by adjusting its competitive strategy? First of all, according to the current situation and existing problems of air cargo business development of Shuangliu Airport, the internal and external environment of its development should be comprehensively and accurately analyzed, and the internal advantages and disadvantages, external opportunities and threats of air cargo business development of Shuangliu Airport should be determined. Besides, the short-term goals and long-term development direction of Shuangliu Airport should be combined to make scientific and reasonable planning. Finally choose and develop the differential competition strategy suitable for Shuangliu airport air cargo business. Through the research of this subject, the air cargo business of Shuangliu Airport can improve its cargo capacity and competitiveness, and enhance its influence in the southwest region.

1.3 Research significance

Combining theory with practice, this paper objectively analyzes the existing problems and core competitiveness in the development of airport air cargo based on actual research, uses a variety of analysis tools comprehensively, identifies the influence of social, economic, policy and other factors, and combines the short-term and long-term development goals of the airport to formulate corresponding differentiated competition strategies and implementation plans. In order to provide some reference opinions and suggestions for the future development of airport air cargo business. By analyzing the internal environment and external environment that have an impact on the development of our air cargo business, this paper integrates resources such as service support, flight time and aircraft capacity, and develops differentiated competition strategy and strategic implementation safeguard measures in line with the actual situation of air cargo in Shuangliu airports. This article has enlightenment to management practice in the following three aspects. First of all, this study effectively helps to optimize the cargo business process of Shuangliu airport,

improve the internal structure and management mode. Secondly, to guide the development of Shuangliu Airport cargo business to drive urban economic development. Finally, the conclusion of this paper is instructive for airport strategic design with similar problems. The conclusion of this paper can be used to promote and guide other aviation logistics enterprises in the same industry to develop strategies in line with their own business development reality and promote their sustainable development. Improve the international visibility of Shuangliu Airport and other domestic freight enterprises, further improve the national influence, and provide a solid foundation for the sustainable development of the national economy.

1.4 Research method

1.4.1 Literature research method

Literature research method belongs to qualitative research. Qualitative analysis generally classifies the information contained in the literature, selects typical examples to reorganize, and draws conclusions based on qualitative description. Qualitative analysis of the literature is of particular value in identifying past trends and using that information to predict future patterns related to them. The document method transcends the time and space limitation, and can study a wide range of situations through the investigation of ancient and modern Chinese and foreign documents. This advantage is not possible with other survey methods.

First of all, the database (such as Wanfang, Jiki network and WOS) is used to search the literature related to the topic. Then, the literature published in the last five years with strong professional relevance is selected to ensure the timeliness and authority of the literature. Finally, the cognition of the research field and the researcher's personal opinion are obtained after a comprehensive understanding of the literature. Through the collation and research of literatures related to air cargo and enterprise strategic management, the current research status in related fields is summarized, and a clear, concise and systematic literature review is concluded to better assist the follow-up research process of this subject.

1.4.2 Questionnaire survey method

Questionnaire survey is a quantitative study. Questionnaire survey is to collect data from a sample of a social group based on questionnaires and understand its characteristics through statistical analysis. The research period of this method is short, the conclusion can be reached quickly, and the conclusion has certain generalization, which can reduce human error to the greatest extent. The original data is easy to save, more information can be recorded, and the graphic survey can enhance the interest of the interviewees.

Firstly, the purpose, users and expectations of the research were communicated to clarify the purpose of the research and whether the questionnaire method was suitable. Secondly, collect relevant information about users (behavior, psychology, etc.) to understand research questions

and objects; Then, the design logic of the whole question is sorted out by mind mapping and card method, and the questionnaire is designed preliminarily and checked to modify possible problems (such as whether the question is easy to understand and whether the logic jump is smooth). Finally, determine the final version of the questionnaire, contact the survey objects, and obtain the survey results through online and offline channels.

This paper adopts the method of questionnaire survey, which is mainly used to investigate the current situation of air cargo business at Shuangliu Airport. By setting specific questions, the airport employees and cargo owners who have the closest contact with air cargo business on a daily basis are selected as the research objects (including airport employees including grassroots front-line staff and management personnel). This paper sums up the problems in the air cargo business of Shuangliu Airport that the airport staff and cargo owners are most concerned about, which is helpful to understand the actual situation of the development of air cargo business of Shuangliu Airport.

2 Theoretical basis and literature review

This chapter first introduces the relevant theoretical basis, and then summarizes the domestic and foreign literature research on air cargo business model and competitive strategy.

2.1 Theoretical basis

Strategy is a series of related actions taken by an enterprise to pursue its mission and achieve its goals. All the strategies developed by the company are executed around the mission and goals. Corporate strategy defines the activities and itself of the enterprise by means of management. It can enhance the initiative and foresight of the enterprise, so that the enterprise can restrain its short-term behavior, so as to point out the development direction for the enterprise, so that the enterprise can develop healthily and continuously. Thus, the success or failure of enterprise management lies in the strategy.

To formulate strategy, a company should first find its own goals and missions; Then analyze their own internal and external environment, find their own strengths and weaknesses, are facing opportunities, threats; Finally, based on SWOT matrix model, strategies are formulated from the perspectives of company, business and internal functions.

Corporate strategy is formulated to maximize its ability to make profits in the long run. In the formulation process, many problems are required, such as the scope and type of business, the industries involved in competition, the value creation activities of each business and the way to advance and exit the business. According to its own goals and missions, strengths and weaknesses, opportunities and threats, the SWOT method can be used to plan corporate strategies that meet its own development requirements.

Business level strategy is to determine a business model that can maintain the steady increase of its profitability in the industry for the enterprise. The strategy determines the business model, competitive positioning and competitive strategy of the company according to the opportunities and threats of the company, the company's strengths and weaknesses, and develops the business level strategy of the company. For example, the company's business model should be developed according to customer groups, accommodating customers' needs and meeting methods.

Positioning its own competitive ability based on cost, pricing and differentiation, so as to determine whether differentiation or low-cost orientation is the leading competitive strategy.

Functional level strategy aims to improve the company's operation efficiency, service quality, customer response and innovation ability. It can create value system and unique competitiveness for the company by relying on the company's strengths and weaknesses, opportunities and threats, so as to develop functional level strategy.

This paper takes the cargo company of Shuangliu Airport Group as the research object, and develops the differentiated competition strategy of air cargo business of Shuangliu Airport, which belongs to the business layer strategy. Precise determination of the internal core competitiveness of Shuangliu Airport cargo by using enterprise capability theory: Through flexible use of SWOT, PEST and other analytical theory thinking mode, the cargo business of Shuangliu Airport is analyzed from various aspects and perspectives, thus drawing the conclusion of the differential competitive strategy of Shuangliu airport cargo selection. See the description of relevant theories below.

2.1.1 Enterprise competence theory

Enterprise competence theory, with the deepening of theoretical research around the world, gradually evolves and develops from resource-based and dynamic competence theories, and finally based on tacit knowledge. It can clearly explain what the core competitiveness of an enterprise is, where it comes from, or in the final analysis, how it is generated. The core of enterprise competence theory is described below.

The resource-based theory mainly studies why individual enterprises or companies differ in their operating performance or profitability. It explores how to construct heterogeneous resources that can guarantee competitive advantage. Resource-based theory takes the heterogeneity of resources as the basis of the theory, and sets the enterprise as a combination of resources with great difficulty in imitation, as well as a combination of tangible and intangible resources. Resources among enterprises are immobile and almost impossible to copy. The resources obtained by enterprises or companies through development, learning and experience are unique, while heterogeneous resources are unique and almost unique, which is also the source of advantages for enterprises or companies. The factors that have a greater impact are the high value and scarce resources that cannot be imitated and replaced in the enterprise, which are also the main source of maintaining competitive advantages. Therefore, for enterprises, the choice of growth strategy is endogenous and reflects path dependence.

The key of enterprise competence theory is to find the core competence of enterprise. Therefore, the core competence theory plays a very important role in the generation of enterprise competence theory. The core competence theory mainly expounds that enterprises accumulate internal knowledge, develop enterprise heterogeneity, and gradually cultivate their own unique competitive advantages. In the 1990s, an American scholar Prahalad c.K. and a British scholar Hamel G. worked together to study core competencies and defined core competencies for the first time. They believe that the core competence of an enterprise or company is the competitiveness formed in the process of continuous development and survival. Later, with the deepening of research, these two scholars believe that the core competence of an enterprise or company is the

knowledge accumulated in the process of development and survival, especially the knowledge related to core technologies.

It can be seen from the core competence theory that not all factors within an enterprise or company can become competitive advantages through their own development. Core competence can be judged from the five aspects of value, heterogeneity, imitability, unsubstitutability and malleability. (1) Value: User value comes from core competence, so core competence plays an important role in enhancing user value; (2) Heterogeneity: only the core competence is unique to the firm, which is not held by competitors and is very scarce; (3) Non-imitative: the core competence of an enterprise is the product of its own development in the direction of its development, which has path dependence, irreducible and fuzzy, resulting in other enterprises can not easily imitate; (4) Difficult to replace: core competence does not have strategic equivalents; (5) Extensibility: Core competence is the basis of the company's business, which can produce other products and services, and can achieve a certain economy of scope in the process of innovation and diversification. Only when the internal resources, knowledge and capabilities of an enterprise meet the above five standards can they become the core competence of an enterprise and thus develop into competitive advantages.

2.1.2 Differentiation strategy theory

Differentiation strategy is a strategy to create characteristics that are obviously different from competitors in many aspects, such as products, services and image, so as to obtain competitive advantages. The theory of differentiation strategy is the important theoretical basis of this paper, and its core content is as follows.

The core of differentiation strategy is to create unique products recognized by peers and shippers, so as to gain higher market shares, consumer groups and profits than competitors, and create competitive advantages. Differentiation strategy cultivates customer loyalty through product or service differences and makes customers insensitive to price decline, so that rival enterprises or companies cannot compete with them. Enterprises or companies that win through this differentiation strategy are in a better position when facing the threat of substitutes, which means that the strategy can maintain its own advantages and continuously obtain higher profits. For example, in the automobile industry, after years of development, many automobile brands in the market have accurately positioned their core competitiveness and increased their sales and profits by improving the comfort level and driving pleasure of automobiles or exploring new functions and uses. This is the differentiation competition strategy. In order to meet their own shopping needs, consumers will decide whether to buy products or services according to their own attributes. When making final consumption decisions, consumers choose a company because its products or services are different from those of other companies in the same industry. Therefore, differentiation strategy in essence is the pursuit of monopolistic elements.

However, differentiation strategy is not applicable in all industries or all situations. It is necessary to choose more than one kind of characteristics that most customers recognize and value, and give these characteristics unique status to meet user needs. In the logistics and transportation industry, products have characteristics that can be mined, which can improve the customer experience to varying degrees while meeting the increasing needs of customers. At this point, the enterprise can achieve the purpose of further flourishing profits through the implementation of differentiation competition strategy. Differentiated competition strategy can either preempt us or strike behind us. Pre-emptive strike means that before entering the target market, the core value of the product should be identified, the market level of the product should be clearly positioned, and the differentiation characteristics of the product should be fully studied and explored. After entering the market, enhance product awareness through publicity, so as to improve the efficiency of the enterprise. By digging deep into the characteristics of a product, it seeks out the differences, then puts it into production and enters the market to attract customers to buy. Moreover, differentiation strategy can also increase users' loyalty to product brands, which requires enterprises to pay close attention to social and economic development, meet market demands, constantly optimize their products, produce products that are different from other competitors in the industry, and improve users' sense of service when using products. Therefore, this strategy is a strategy that makes the profit of the enterprise higher than the average profit of the peers. The enterprise can combine the advantages of its own products, services, image and channels to customize the differentiation strategy in line with its own development.

2.2 Literature review

2.2.1 Research on air cargo business model

With the extensive development of the international air cargo business, the air cargo mode has attracted the attention of the global academia. Domestic academic circles focus on the development status and existing problems of domestic air cargo, so as to analyze the air cargo business model, and put forward corresponding suggestions. For example, (Liang Xiaokang 2021, 9.) focuses on analyzing the main problems in the existing business model based on the current business model of air cargo logistics. Based on the background of the age and social needs, this paper proposes effective strategies for the development of the business model of air cargo logistics, so as to effectively promote the sustainable and stable development of air cargo logistics. (Sun Hang & Wei Ran 2020, 196.) based on the development status of air freight, put forward the opportunities faced by the development of air logistics multimodal transport and the feasibility of its realization, analyzed the prospect of air multimodal transport, and offered solutions to the possible problems in the development.

Foreign academic research in this area is more comprehensive and systematic, not limited to the macro political and economic conditions, focusing on the actual business details. (Ayasanond

2019, 365.) conducted literature analysis and in-depth interviews on more than 20 managers in the departments of human resources, air cargo operation, training, ground service, corporate communication, public relations and customer service of Thai Airways. Based on PEST analysis and Porter's Five Forces model SWOT analysis, It is found that the main factors affecting the cargo supply chain management of Thai air are global business competition, security, one-stop service, international business deregulation, open skies policy of commercial airlines, the growth of online technology and the change of consumer behavior. (Rabten et al. 2018, 40.) used fuzzy analytic hierarchy process (AHP) to deeply analyze the survey data of Bhutanese air cargo management experts, and determined that cargo handling infrastructure was the most in need of improvement, followed by airport charges and cargo security services, so as to determine the effective cargo business model of the airport.

2.2.2 Research on Competitive Strategy of airport air cargo

In the current economic environment, the competitive strategy of enterprises is still the key point to seize market resources. Therefore, domestic and foreign scholars have begun to study the competitive strategy of enterprises. Domestic scholars most commonly use SWOT analysis to study the development of airport air cargo, analyze the advantages and disadvantages of the development of airport cargo from many aspects, find the current existing disadvantages and deficiencies of air cargo, as well as the urgent need to develop new business and new services, and then provide reference for the choice of differentiated competition strategy of air cargo.

First of all, (Liu Wujun 2018, 5.) took "Shanghai Airport, a hub of China and the world" as an example and studied the system, operation mode, economic and other factors of Shanghai Airport cargo companies. He concluded that aviation logistics industry plays a crucial role in the implementation and landing of the "strong four transportation strategy". (Li Yang & Liu Shaolin 2019, 210.) taking the urgent integration and adjustment of the air cargo business of international freight forwarding companies as the research entry point, also concluded that the improvement of air logistics freight volume is a direct means to increase the total volume of China's trade and import, which fully proves its importance to China's economic development. Therefore, to develop aviation logistics industry has become a national strategic need, urgent.

(Xu Lan & Zhang Qing 2020, 6.) have studied and analyzed the business strategy of enterprises, and proposed that enterprises should adjust the business strategy to the market demand and the national strategy of service in the process of operation. The research of many scholars not only provides theoretical support for the adjustment of strategy, but also provides theoretical basis for the aviation logistics industry with development prospect to occupy the strategic dominant position in many enterprises. In terms of airlines, (Peng Zhifang 2019,1.) analyzed the current situation of employees in the aviation logistics industry from the perspective of the positions of management and grassroots employees, and proposed specific talent needs. (Wang Mei 2021,1.) indicates that

in order to meet the needs of cargo owners, airlines will integrate human, financial, market and other resources, and carry out corresponding operation mode transformation, so as to attract more cargo sources and promote enterprises to be far ahead in the competition. (Wang Hui 2021,16.) took Hainan Airlines as the specific object of analysis, discussed the future development direction and corresponding strategic adjustment of Hainan Airlines, and drew a similar conclusion with Wang Zheng. In terms of airport, (Li Yanqi & Shen Qingyuan 2019,171.) analyzed the advantages, disadvantages, opportunities and challenges of Zhengzhou's construction of international aviation logistics center by using SWOT model, and discussed the relationship between the "Belt and Road" war road and Zhengzhou's construction of international aviation logistics center. And the differentiation competition strategy of Zhengzhou International air logistics Center is discussed. (Hu Yuanqing & Luo Xingling 2021,41.) conducted research and SWOT analysis on the development status of airport logistics business in Hunan. The research shows that although Hunan airport logistics presents a good development trend at present, it still faces many problems. The demand of shippers and the market emphasizes the differentiation of products and services in the differentiation competition strategy. Hunan Airport Logistics must extend to the upstream and downstream of the industrial chain, effectively connect with the regional and international industrial chain and supply chain, adhere to the correct market positioning and distinctive differentiation competition strategy, and provide shippers with efficient and fast cargo transportation services. Based on the above analysis and the ideas and strategies put forward by many scholars, it is the most direct and reliable means for air logistics transport enterprises to make themselves the leader in the aviation logistics industry in face of the rapid development of society, economy, science and technology and the fierce competition environment. (Shi Xuegang & Zhou Lin 2021,31.) analyzed the strategic environment for the development of Tianjin International Aviation logistics Center with SWOT model based on the current development status of domestic and foreign aviation logistics, constructed the CCS model of the international aviation logistics center from the perspectives of cargo source, accessibility and service, and proposed strategies to optimize the construction of Tianjin International aviation logistics center. That is, to cultivate stable cargo sources and optimize the existing airline network structure, improve the comprehensive transportation hub system and optimize the comprehensive business environment, study special "cargo conversion" and all-cargo aircraft support schemes, and improve the aviation logistics development policy system. All these provide a strong theoretical basis for the choice of differentiation competition strategy. (Wan Yulong 2019,236.) analyze Huai 'an air cargo logistics hub with SWOT model, and provide a differentiated competitive strategy for the Hang Hub. They believe that the construction of Huai 'an air logistics base can integrate all links of cargo transportation, effectively improve cargo transportation efficiency and shorten cargo transportation time. And it is of great significance to the construction of Huaian air cargo logistics hub. (Yang Guang 2019,13.), (Xiang Fei 2019,85.) have conducted in-depth research on the development of air cargo enterprise informatization. The

research shows that the construction of cargo electronic information platform can strengthen enterprise management and improve the operation efficiency of air logistics enterprises. In order to further play the air cargo "fast, stable, accurate" characteristics, to achieve enterprise service differentiation, improve the core competitiveness of enterprises.

In January 2020, COVID-19 spread around the world. During the COVID-19 pandemic, the upstream and downstream of the supply chain were hindered by quarantine measures, which seriously affected air cargo enterprises. (Xu Cheng 2021,22.) analyzed the negative impact of the COVID-19 pandemic on the development environment of China's air cargo enterprises with SWOT, and proposed the differentiated competition strategy of air cargo during the COVID-19 pandemic.

Looking abroad, some scholars are innovating and improving on the traditional analysis tools, combining quantitative and qualitative methods to study the differentiated competition strategy of airport air cargo. (Tanriverdi & Lezki 2021,95.) used a framework based on fuzzy analytic Hierarchy process (AHP) that integrated Porter's five forces analysis to identify existing and potential air cargo carriers for the Turkish air cargo industry and provide the best competitive strategy for the Istanbul-based airport operation. The results show that the strategy that takes cost as the center and develops from many aspects is the best competitive strategy. (Ansoff 2018,1.) whose position is different from that of Tanriverdi and Lezki, conducted in-depth analysis and research on all links of air cargo business, highlighted the advantages and disadvantages of current air cargo business, discovered the hard and soft problems, and provided a reference for the strategic selection of differentiated competition in air cargo business. (Van & Dewulf 2019,48.) focused on the competitiveness of European airports in air cargo. Through extensive literature review and interviews with industry experts, it was determined that the four characteristics of territory, air cargo market, airport operation and product differentiation determine the competitiveness of airports in air cargo. To further help evaluate and strengthen its air cargo differentiation development strategy.

2.2.3 Literature review

Many experts and scholars at home and abroad have actively explored the development of air cargo in combination with social, economic and policy backgrounds. Throughout the current research on the development of air cargo in domestic and foreign academic circles, scholars have reached a preliminary consensus that relevant research is mainly focused on two levels: one is the level of national policy. For the development of airport air cargo, research is mostly from the level of macro policy and social economic environment, to explore the development direction and development strategy of the entire air cargo industry; The other is the airport construction level, specific to a specific airport. In China, SWOT analysis method is often used in combination with macro background for analysis, while foreign countries are better at combining qualitative and quantitative methods in methodology, not limited to analysis tools themselves, and will improve on

the basis of the most commonly used analysis tools. At this point, the development research of our air cargo business can learn from excellent achievements of foreign research, and carry out targeted strategies for domestic airport air cargo business development research.

To sum up, the current research on air cargo is more focused on the national level and airport level, and more specific business level needs to be systematically studied. Based on the air cargo company affiliated to Shuangliu Airport Group, this paper takes its main air cargo business as the research object, analyzes and formulates the differentiated competition strategy at the business level. The core purpose of this paper is to develop the competitive strategy of air cargo business of Shuangliu airport. Therefore, it is necessary to deeply analyze the external environment and internal resources of Shuangliu Airport cargo business. SWOT analysis of a specific business is not only consistent with the thought of the above existing literature research, but also an important prerequisite for the development of business strategy, which is crucial to the formation of a practical business competition strategy plan. Therefore, the SWOT analysis method is used in this paper to deconstruct the internal and external environment of air cargo business of Shuangliu Airport, and the competition strategy in line with the actual situation of air cargo business of Shuangliu Airport is formulated from the perspective of air cargo business. Air cargo, as a public product service based on airport infrastructure and airline routes and fleets, covers both domestic and international markets. When studying the differentiated competition strategy of air cargo business of a specific airport, we should not only consider the influence of political, economic, social, cultural and other factors at the national and international macro level, but also consider the environmental impact of the logistics transportation industry where air cargo is located. In addition, the city where the airport is located, the airline company and the airport itself will also affect the development of specific air cargo business. After sorting out relevant references at home and abroad, this paper draws on the most commonly used analytical tools and methods of scholars to carry out the research on this topic.

3 Current situation and problem analysis of air cargo business at Shuangliu Airport

This chapter mainly introduces the general situation, current situation and problems in the development of air cargo business of Shuangliu Airport.

3.1 Airport profile

Chengdu Shuangliu International Airport is the busiest civil hub airport in central and western China, an aviation hub and an important passenger and cargo distribution center in southwest China. It is the largest transit airport to Gongga Airport in Lhasa, and the only transit airport to Bangda Airport in Qamdo and Millin Airport in Nyingchi. Chengdu Shuangliu International Airport is the base airport of Air China Southwest Branch, Sichuan Airlines Co., LTD., Chengdu Airlines Co., LTD., Shenzhen Airlines Co., LTD., and Sichuan Branch of China Eastern Airlines. Since its establishment in 1987, the airport has been one of the top ten busiest airports in China for 16 consecutive years, and has always maintained a record of zero safety accidents in open space. In 1998, it was the first airport in China to pass the ISO9001 quality system certification. In 2021, Chengdu Shuangliu International Airport completed 40.117 million passenger throughput, down 1.5% year-on-year; Cargo throughput of 629,400 tons, up 1.8% year on year; Aircraft took off and landed 309,000 times, down 3.5% year on year; It ranked second, seventh and fourth in China respectively.

3.2 Investigation on current situation of air cargo business at Shuangliu Airport

Based on the research content of this paper, a comprehensive questionnaire survey was conducted on airport employees of Shuangliu Airport (referring to senior managers and core employees in strategy implementation, such as cargo general manager, deputy manager, section chief of each department, team leader, etc., hereinafter referred to as "Shuangliu Airport employees", a total of 150 people, including 34 senior managers and 116 core employees) and cargo owners. Through the collation and statistics of sample data, the existing problems and deficiencies of air cargo business of Shuangliu Airport are found, and the problems are analyzed, which provides a basis for the formulation of differentiated competition strategy of air cargo business of Shuangliu Airport.

3.2.1 Investigate the program

In this paper, the staff and cargo owners of Shuangliu Airport as the research objects, the implementation of random sampling questionnaire survey. Since this paper studies strategic issues at the level of airport air cargo business, when selecting airport employees as the objects of

investigation, grass-roots front-line staff and management staff are selected according to the organizational structure of air cargo companies affiliated to Shuangliu Airport Group. Grassroots front-line staff have more contact with practical work and have a more detailed understanding of the actual operation of the air cargo business of Shuangliu Airport, while the management has a better understanding of the functions of the department and the business situation of the department under their jurisdiction.

The employees of Shuangliu Airport are concentrated, so it is easy to carry out offline questionnaire survey, while the cargo owners are scattered, so it is difficult to carry out offline survey. Therefore, this paper uses a combination of online and offline form to distribute questionnaires to collect data. For employees of Shuangliu Airport, the questionnaire is mainly distributed offline, and the employees are contacted in Shuangliu Airport, and then face to face interview and fill in the questionnaire at the agreed time and place. For cargo owners of Shuangliu airport, questionnaires are distributed online.

First of all, Shuangliu Airport freight related staff contact, obtain the Shuangliu cargo owner's contact information, and then to wechat, SMS and other communication methods to solicit the owner's consent, will be on the questionnaire star platform designed online questionnaire link to the way of communication sent to the owner, the owner click the link can fill in the questionnaire. Airport employees and cargo owners who are obviously not careful in filling in the questionnaire results should contact them again and assist them to fill in the questionnaire again through interviews and video calls to ensure the recovery rate of the questionnaire results.

In this paper, the number of questionnaire questions for airport employees and cargo owners is set at 10. A total of 300 questionnaires were distributed online and offline, among which 150 questionnaires were distributed to airport employees and cargo owners respectively.

In order to analyze the main problems existing in air cargo at Shuangliu Airport, this paper conducted A questionnaire survey on employees and cargo owners of Shuangliu Airport (see Appendix A and Appendix B for details). Table 3-1 summarizes the specific contents of the survey.

Table 3-1 Survey contents

Survey object	Characteristic	Investigation content
Airport staff	Personal characteristics	Gender, age, occupation, position, length of employment
	Other characteristics	The types of goods mailed by the cargo owners contacted, the frequency of receiving new cargo owners, the satisfaction with the operation management and advertising of the airport cargo business, the existing problems of air cargo, the advantages and disadvantages of airport cargo, and

		the forecast of the future development of air cargo
	Subjective characteristics	Recommendations for airport air cargo
Cargo owners	Personal characteristics	Gender, age, occupation
	Other characteristics	Frequency of express delivery, category of goods to be mailed, logistics company selected, ways to understand logistics company selected, factors affecting the selection of logistics company, satisfaction with airport air cargo service, advantages and disadvantages of airport air cargo service
	Subjective characteristics	Recommendations for airport cargo

3.2.2 Survey result

In the offline questionnaire part, I had a face-to-face conversation with employees at Shuangliu Airport. The airport employees surveyed were colleagues with high trust. All questionnaires were filled in face to face and were valid, with a recovery rate of 100%. The online questionnaire was distributed after asking for the consent of the owners of goods and invited them to fill in. However, there were obvious problems in some online questionnaires, so the recovery rate of the first online questionnaire was 79%. In order to guarantee the overall quality of the questionnaires on the line and the total number of research samples, the shipper was contacted again, and the problematic questionnaires were sent out twice or filled in with one-to-one assistance through video call. The final online recovery rate of the electronic questionnaires was also 100%.

(1) Basic information statistics

Collect statistics on the collected data. Table 3-2 and Table 3-3 describe the basic statistics.

Table 3-2 Descriptive statistics of airport employees

Variable	Index	Frequency	Percentage (%)
Gender	Male	101	67.3
	Female	49	32.7
Age	Under 25 years old	14	9.3
	25-30 years old	33	22.0
	30-35 years old	48	32.0
	35-40 years old	29	19.3
	40-50 years old	17	11.3
	Over 50 years old	9	6.0
Duration of employment	5 years and below	27	18.0
	5-10 years	65	43.3
	10-20 years	39	26.0
	20-30 years	15	10.0
	More than 30 years	4	2.7

As can be seen from Table 3-2, among the interviewed airport employees, there are 101,49 men and 49 women respectively, and male employees account for a relatively high proportion. This is mainly due to the fact that front-line workers engaged in air cargo business do a lot of physical labor, and most of them are male. The majority of airports are those aged 30-35, accounting for 32% of the total, followed by those aged 25-30 and 35-40, and the majority are young adults. Among the interviewees, the airport employees with 5-10 years of employment are the most, followed by those with 10-20 years of employment, which indicates that Shuangliu Airport has a group of employees with rich working experience.

Table 3-3 Descriptive statistics of owners

Variable	Index	Frequency	Percentage (%)
Gender	Male	95	63.3
	Female	55	36.7
Age	Under 25 years old	7	4.7
	25-30 years old	32	21.3
	30-35 years old	54	36.0
	35-40 years old	30	20.0
	40-50 years old	21	14.0
	Over 50 years old	6	4.0
Occupation	Student	3	2.0
	State organs and units	26	17.3
	Enterprises/institutions	78	52.0
	Self-employed	29	19.3
	Other	14	9.3

As can be seen from Table 3-3, there are 95,55 men and 55 women respectively among the interviewed cargo owners, among which males account for 63.3% of the total, indicating that the majority of male cargo owners choose Shuangliu airport, while females are less. The majority of respondents were aged 30-35, accounting for 36.0% of the total, followed by those aged 25-30 and 35-40. Among the respondents, most shippers work in enterprises and public institutions, followed by individual businesses and state organs.

(2) Airport staff questionnaire results

The statistical results of airport employees' satisfaction with the operation and management of air cargo business of Shuangliu Airport are shown in Figure 3-3. The employees' overall satisfaction with the operation and management of air cargo business of Shuangliu Airport is relatively high. The satisfied and relatively satisfied employees account for 65%, more than half.

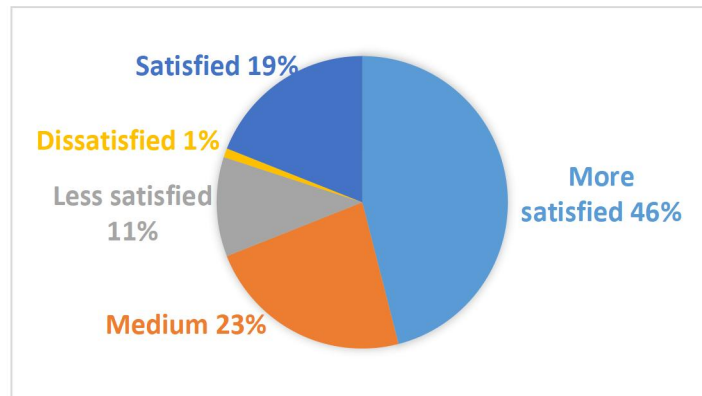


Figure 3-3 Airport employees' satisfaction with the operation management of air cargo business

The statistical results of airport employees' satisfaction with the advertising of air cargo business of Shuangliu Airport are shown in Figure 3-4. The employees' satisfaction with the advertising of air cargo business of Shuangliu Airport is relatively low, and the dissatisfied and relatively dissatisfied employees account for 50%.

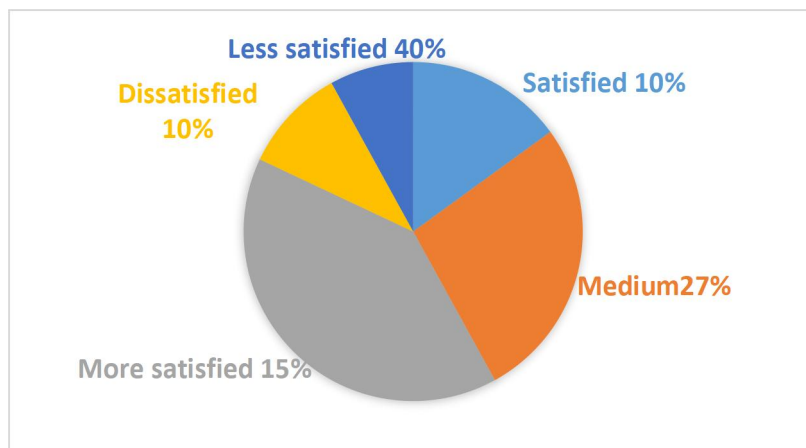


Figure 3-4 Airport employees' satisfaction with air cargo business advertising

According to the staff of Shuangliu Airport, there are mainly the following problems in air cargo at present. The specific statistical results are shown in Figure 3-5. It can be seen that the three most prominent problems, such as inconvenient delivery/pick-up, unreasonable mailing price and opaque cargo process information, are not high utilization rate of cargo hold and may be affected by bad weather, air traffic control and other external influences. The late arrival of goods and the inability to post in some cities are also three problems that need attention.

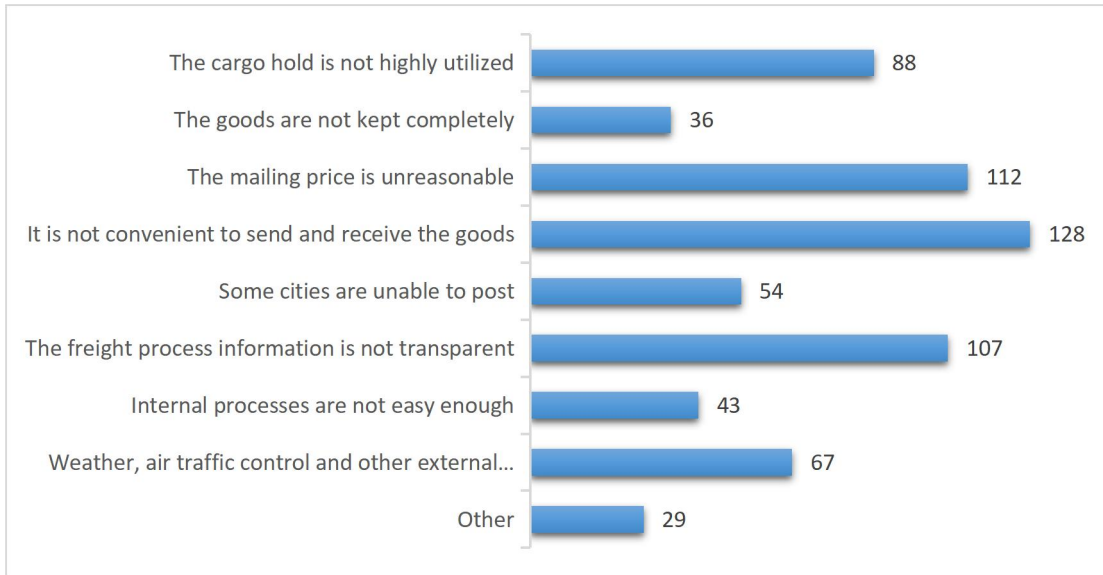
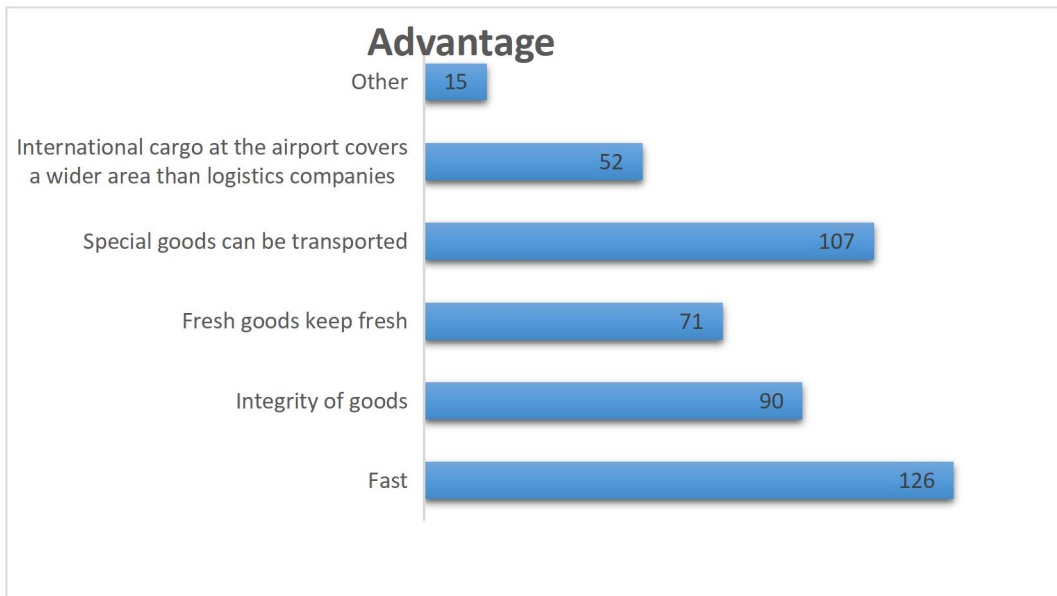


Figure 3-5 Problems that airport employees think exist in air cargo at Shuangliu Airport

Compared with logistics companies such as SF Express and Postal Service, the advantages and disadvantages of air cargo business of Shuangliu Airport in the opinion of airport employees are shown in Figure 3-6. The three outstanding advantages of air cargo business at Shuangliu Airport are fast speed, the ability to transport special goods (valuables, medical organs, etc.), and the integrity of cargo preservation. The three major disadvantages of the air cargo business of Shuangliu Airport are inconvenient delivery/pickup, unreasonable price, inaccessible to some domestic cities, and the mode of transportation needs to be changed.



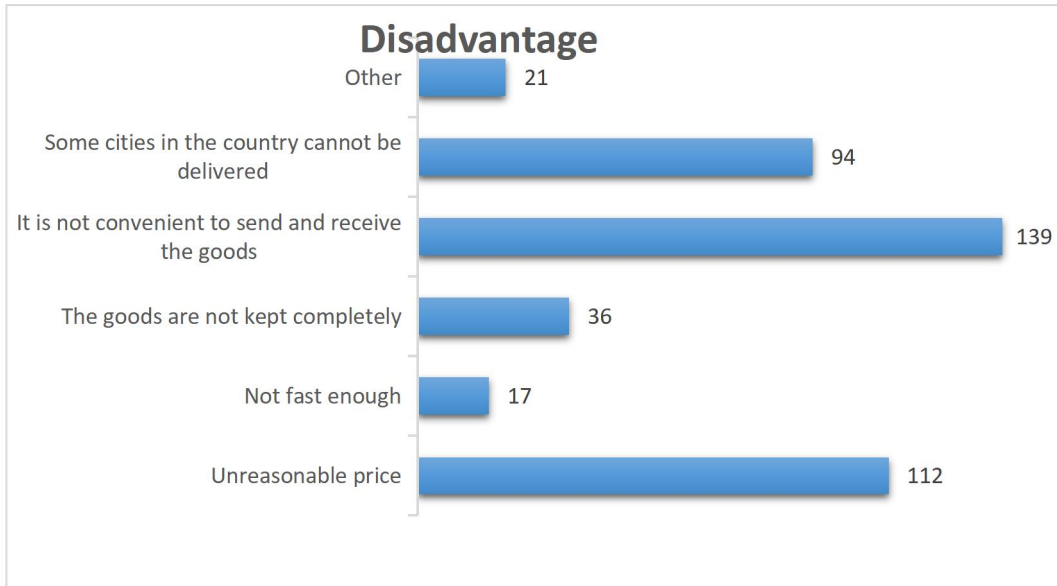


Figure 3-6 Advantages and disadvantages of air cargo business of Shuangliu Airport

(3) Results of owner questionnaire survey

The statistical results of cargo owners' satisfaction with air cargo services at Shuangliu Airport are shown in Figure 3-7. It can be seen that the satisfied and relatively satisfied shippers only account for 53%, and the dissatisfied and relatively dissatisfied shippers account for 24%, indicating a low overall satisfaction.

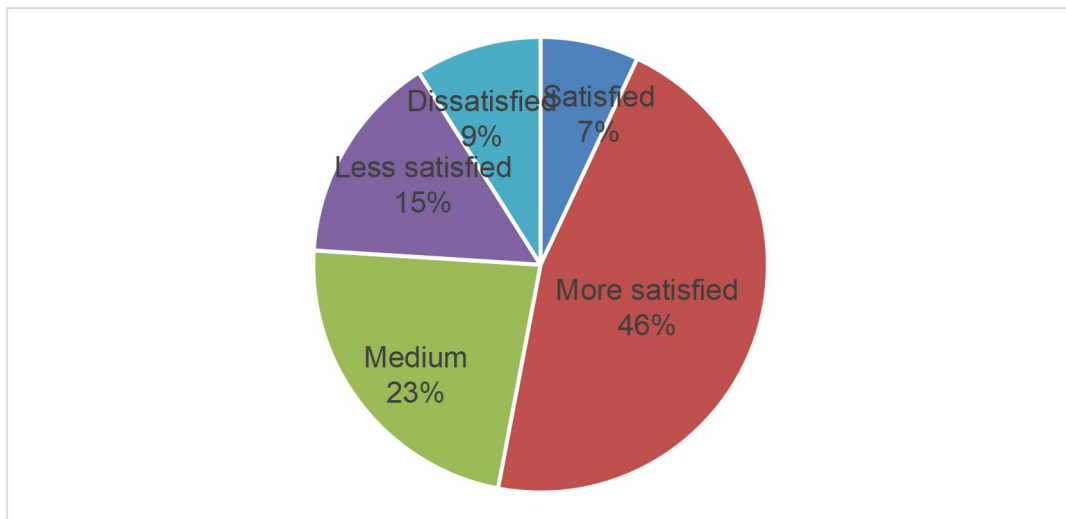


Figure 3-7 Cargo owners' satisfaction with air cargo services at Shuangliu Airport

Compared with logistics companies such as SF Express and Postal Service, the advantages and disadvantages of air cargo business of Shuangliu Airport considered by shippers are shown in Figure 3-8. The three outstanding advantages of air cargo business of Shuangliu Airport are fast speed, complete cargo preservation and fresh cargo transportation. The three major disadvantages of air cargo business of Shuangliu Airport are inconvenient to send/pick up goods, inaccessible to some domestic cities, need to change the mode of transportation and unreasonable price.

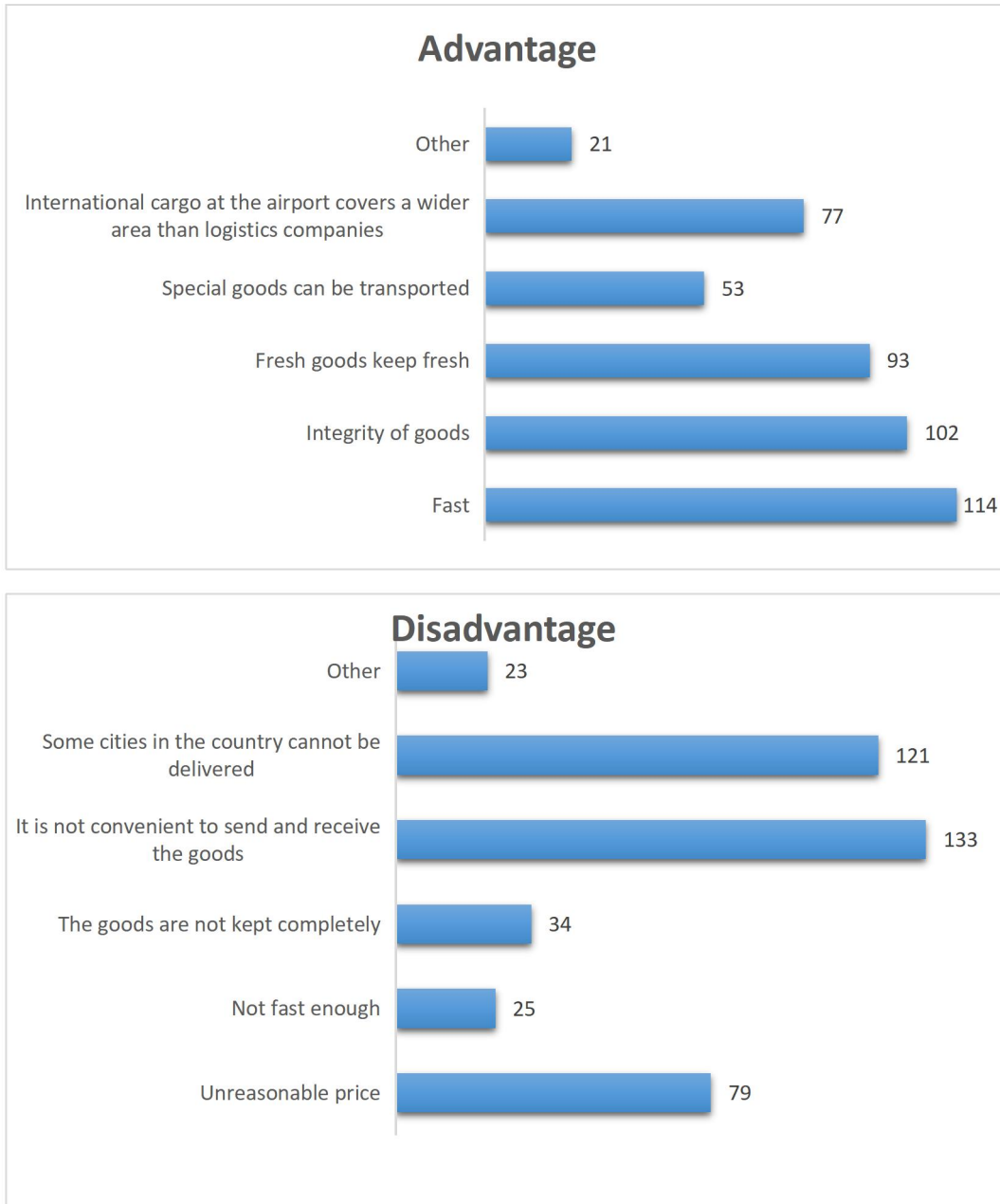


Figure 3-8 Advantages and disadvantages of air cargo business at Shuangliu Airport considered by shippers

3.3 Analysis of air cargo business problems at Shuangliu Airport

According to the statistical results of the questionnaire survey, it is concluded that there are four main problems in the development of air cargo business of Shuangliu Airport, which need to be solved by optimizing and improving the business competition strategy.

3.3.1 Single operation mode

According to the results of the questionnaire survey (Figure 3-6 and Figure 3-8), when asking airport employees and cargo owners about the disadvantages of air cargo business of Shuangliu Airport, the most people choose "inconvenient delivery/pick-up", accounting for 92.7% and 88.7%

respectively. The second choice is "some cities in China cannot be reached, so the transportation method needs to be changed", which accounts for 62.7% of airport employees and 80.7% of cargo owners respectively. The reasons for these two problems are related to the fact that the air cargo of Shuangliu airport is mainly engaged in the traditional "airport to airport" service, which cannot be done "door to door".

At present, the development path of the domestic economy is shifting from the investment-driven mode to the consumption-driven mode. Air cargo logistics gradually has an absolute advantage in the market due to its safety, efficiency, convenience and efficiency. However, the air cargo business of Shuangliu Airport has not adapted to the development of the modern logistics market. It still works according to the traditional air cargo process. For example, the consignor needs to collect the goods before arriving at the airport at a specified time, and the receiver needs to pick up the goods at the destination airport after the plane arrives at the destination airport. However, domestic logistics companies have been able to provide a variety of delivery services for users to choose from. In this way, shippers can feel a significant difference in service. At the same time, the pick-up and delivery time of cargo owners are greatly affected by flights. Once the flights are delayed in a large area due to bad weather and air control, the goods cannot be shipped out in time, nor can they be transferred to other modes of transportation such as land transportation in time, which eventually leads to the late arrival of the goods. For food, fresh and other goods, cargo damage disputes often occur between the airport cargo department and cargo owners. As shown in Figure 3-5, 67 airport employees (44.7%) pointed out this problem in the questionnaire survey. The air cargo business of Shuangliu Airport mainly uses the remaining cargo space provided by airlines to transport cargo. Although Shuangliu Airport has been open to 102 cities in China, there are still some cities that cannot be reached. Since 2015, Shuangliu Airport has tried a variety of multimodal modes, such as "air-air combined transport", "ground-air combined transport" and "sea-air combined transport", but the development speed is slow. With the rise of daily air cargo demand by most high-end manufacturing enterprises, there is more demand for services. However, it is difficult to form industrial scale due to many factors, such as the difference of double flow airport convergence and high cost. During the mailing process, goods may need to change the mailing method before reaching the destination, which may lead to a series of problems such as goods damage and deterioration during the transportation process, which greatly reduces the satisfaction of owners. Thus, the imperfect combined transport mode is a major problem in the development of air cargo business at Shuangliu Airport.

3.3.2 High price

The results of the questionnaire survey (Figure 3-6 and Figure 3-8) show that 74.7% of airport employees and 52.7% of cargo owners think that the price of air cargo business at Shuangliu Airport is unreasonable. Due to the difference in survey results between the two categories of

respondents, this paper cross-analyzed the statistical results of the questionnaire and found that it was closely related to the frequency, quantity and category of goods sent by the shippers. At present, the cargo owners of Shuangliu Airport are mainly divided into two categories: one is the long-term customers specially responsible for the business department of the cargo company; The other is random travelers who choose items to post at airport cargo counters on a daily basis.

The first type of cargo owners and Shuangliu airport air cargo company has a long-term cooperation, the delivery of goods of high unit value, high timeliness requirements, stable supply and large quantity of goods. The freight company's business department staff will sign a long-term transportation contract with these shippers, and give the shippers a certain price concessions. As a result, only 52.7% of the cargo owners surveyed believed that the price of air cargo business at Shuangliu Airport was unreasonable. The second type of cargo owners choose Shuangliu airport air cargo service frequency is low, this type of cargo owners mainly mail articles, clothing, the number is small, unit value is not high. If the owner needs to send the goods, the corresponding weight standard can not be reached, it needs to send the goods according to the standard price, which is higher than that of express companies and freight forwarders. This is because of the high timeliness of air cargo at Shuangliu Airport, which can be sent along with the appropriate flight. If you choose other express companies or freight forwarders around the airport, the other company needs to collect all the express of the same destination and finally pack it to the airport for mailing, which often leads to waiting and long transportation time. Airport employees often come into contact with such cargo owners on a daily basis. They often encounter customers complaining about their price preference and turn to other express delivery companies or freight forwarders around the airport. Therefore, 74.7% of airport employees think that the price of air cargo business of Shuangliu Airport is unreasonable. Meanwhile, because airport employees directly perceive the loss of customers, 58.7% of airport employees think that the utilization rate of cargo hold is not high.

3.3.3 The freight process information is not transparent

At present, Shuangliu Airport has an independent cargo information system, but it has not realized the comprehensive communication with the information system of airlines and other resident units. Therefore, it is impossible to track cargo information in real time and keep up with the development requirements of modern aviation logistics.

In addition, logistics information cannot be queried in a wide range at Shuangliu Airport, and cargo owners can only track cargo transportation information by inquiring specific airport employees. However, domestic and foreign express delivery companies have already made it possible for users to track the whole process from delivery to collection. The world's three express giants, DHL, FedEx and UPS, based on their own global distribution networks and independent data systems, while domestic express companies SF Express and "Four links and one Da" have also formed a

fast and convenient freight information system, with the delivery process and service sites all known to the public. In contrast, the interviewed airport employees clearly felt the gap between Shuangliu Airport cargo information system and other express companies. As shown in Figure 3-5, 71.3% of airport employees pointed out that "cargo process information is not transparent", and 28.7% of airport employees pointed out that "internal process is not easy". In addition, as shown in Figure 3-3, 12% of airport employees expressed dissatisfaction or relatively dissatisfaction with the operation and management of the airport.

3.3.4 No brand effect has been formed

The results of the questionnaire survey show (Figure 3-4) that half of the airport employees are dissatisfied or relatively dissatisfied with the publicity work of air cargo business of Shuangliu Airport, and only 23% of the airport employees choose to be satisfied or relatively satisfied, which is related to Shuangliu Airport's tradition of "emphasizing passengers over cargo". Air passenger business is the main business of Shuangliu Airport, which is committed to building a good brand image, while air cargo business is regarded as an additional business attached to the passenger business, with insufficient capital and publicity investment, so that many people do not know or even know the air cargo business of Shuangliu Airport.

In recent years, with the extensive development of e-commerce and the improvement of the degree of specialization of logistics enterprises, there has been a certain accumulation in market influence and brand publicity, and value-added services, convenience and popularity are increasing year by year. As far as domestic logistics brands are concerned, the competition is fierce and the brand characteristics are mature. When customers have air cargo needs alone, they seldom consider air cargo of Shuangliu Airport, and often choose other logistics enterprises even if they have higher requirements for transportation time. The main reason is that the publicity scope of Shuangliu Airport for air cargo is only limited to around the airport, and it fails to form its own brand characteristics like logistics enterprises, and it lacks publicity for different markets. This is not conducive to the expansion of customer base to a certain extent, limiting the further development of air cargo business of Shuangliu Airport.

4 Air cargo development environment analysis of Shuangliu Airport

This chapter analyzes the development environment of air cargo of Shuangliu Airport, uses PEST research method to analyze the macro environment, and uses Porter's five forces model to analyze the industry competition environment, and finally uses SWOT analysis to analyze the advantages, disadvantages, opportunities and threats of air cargo business of Shuangliu Airport.

4.1 Macro environment analysis

4.1.1 Analysis of political environment

In terms of the domestic political environment, we have been in an all-round well-off state, which has given our economy a certain impetus for development, and the current state cannot be achieved without the efforts of governments at all levels. In 2000, China International Freight Forwarders Association was established, which not only became the starting point of Chinese agency companies, but also connected agency agencies with individuals or groups to a certain extent, and also established relevant links with international agency enterprises. The main task of the agency is to promote the development and growth of the freight business in a stable environment by means of government cooperation. That is to say, while strengthening the relationship with the partners, it promotes the development of the freight business and provides the corresponding protection for the relevant customers. The Ministry of Commerce has also provided guiding opinions on speeding up the development of freight transportation, and further clarified and optimized relevant principles, ideas, objectives and measures. It lays a certain foundation for the development of large and medium-sized logistics enterprises with good resources, equipment and functions. Moreover, the importance of innovation and reform is clearly pointed out in the guidance, and the development suggestions and advantages of freight business are clearly defined under the premise of government guidance.

4.1.2 Analysis of economic environment

In terms of the international economic environment, the global economy continues to recover, the global economy is growing steadily, and many traditional economic powers, including China, continue to strengthen their economic vitality. China's foreign trade reached a record high of 30.51 trillion yuan in 2022. In order to promote the continuous development of foreign trade, China attaches great importance to reducing import and export. Enterprises' cargo transportation costs, through the provision of convenient policies, expand financing channels and other ways to encourage international trade. With the rapid development of China's economy, the deepening of world economic integration and the continuous growth of international trade, the air cargo market will continue to grow, and the demand for air cargo information will also continue to increase. In

terms of domestic economy, in the past decades, our economy has been developing rapidly. Although it has slowed down to a certain extent, compared with other countries, the development speed is still relatively fast. At the same time, the relevant departments also optimized the industrial structure and economic factors, which laid the foundation and guarantee for the economic development. Industrial restructuring has become the primary premise of economic development, especially in the environment, resources, quality, and the establishment of relevant policies and regulations.

4.1.3 Analysis of social environment

In terms of social environment, the current political situation in China is stable, the social environment is good, the people live and work in peace and contentment, and the quality of the people is constantly improving, which provides a sound environmental foundation for social and economic development. Economic development is the main goal of the state and society. Air cargo business as an important link of international trade, e-commerce, coupled with the demand and application of high technology, more and more talents begin to favor air cargo industry. With the integration of urban and rural areas, people's living standards continue to improve. A large population base and generally good education, not only to ensure the industrial and trade demand for technical talents, but also constitute a huge consumer market, industrial structure and consumption structure to a good direction. Macro factors affecting the development and operating costs of air cargo also include the global price of jet fuel. The average price of international jet fuel has continued to rise since 2020, mainly due to a decrease in crude oil supply. For air transport, the largest proportion of cost is the cost of purchasing aviation equipment on the one hand, and aviation fuel on the other hand. Airlines have a large demand for fuel, and the proportion of cost is very high. According to IATA, the cost of jet fuel for airlines worldwide exceeded \$156 billion in 2022, accounting for 19.6 percent of total airline costs. Therefore, fuel price has a huge impact on the cost of air freight. If fuel price continues to rise in the future, it will have a certain impact on air freight.

4.1.4 Analysis of technical environment

With the rise and development of e-commerce, modern logistics is also developing rapidly. Both of them are based on Internet technology and rely on electronic data platform. Information has penetrated into every link of modern logistics. Through the application of information system, the operation efficiency of air cargo enterprises has been greatly improved, the cargo transportation has become faster and smarter, the information transmission is more timely, and at the same time, it can also provide customers with better service. The application of information technology also makes all cargo related parties closely connected. Traditional cargo enterprises are different from the logistics and express industry, and the roles of airlines, airports, cargo agents, customs,

quarantine and other government agencies are clearly divided. With the improvement of the information level of air cargo, all cargo related parties are gradually using information systems, and many links are realizing automation and paperless. It has brought great convenience to air cargo enterprises. Of course, the air cargo industry is a traditional industry, and its informatization development is still inferior to that of passenger transport and some emerging industries. There is still a long way to go for air cargo informatization. In addition to the application of cargo information system, some emerging technologies also begin to be applied in air cargo. RFID technology, for example, can record and read information from a certain distance through radio or microwave technology. The Internet of Things (IoT) is another technology emerging in air cargo applications, connecting cargo with Internet information systems through various sensing devices. Common freight sensing equipment includes GPS, bar code, video system, temperature and humidity sensors and so on. Through the application of various sensors, the information will be transmitted to the freight information system in real time, freight enterprises can carry out a comprehensive understanding of the goods, monitoring and tracking, to achieve intelligent management. In the future, more and more technologies will be applied in air cargo, and there is still a huge space for the development of air cargo information. The Internet of Things technology has narrowed the distance between people and things, and also made air cargo more intelligent, digital and humanized.

4.2 Industry environment analysis

4.2.1 Bargaining power of suppliers

At present, Shuangliu Airport has a number of resident airlines operating, with many flights, wide routes and models. The transportation capacity can fully meet its cargo demand. Its cargo pricing is flexible, and it has the right to regulate the price to a certain extent. In terms of freight rates, except for China Southern Airlines' independent examination and approval of freight rates, cargo owners of other airports will set their own prices based on the base prices of airlines, so as to make dynamic adjustments to the prices as the market demand changes.

At the same time, the government holds the leading right in the overall planning and coordination of aircraft procurement by airlines. The size and development prospects of the domestic civil aviation market also give the government an active position in negotiating price rights with Boeing and Airbus in aircraft procurement. This indirectly encourages airlines to replace simple aircraft at lower cost, that is, passenger aircraft instead of cargo aircraft, constantly increase air cargo capacity, and further reduce freight rates.

4.2.2 Bargaining power of buyers

The purchaser is the airport cargo owner or agent. With the increasing competition in the market, buyers' demand for both price and service will be greater and greater.

When airlines transport goods with high added value, the freight of goods takes a small proportion in the total cost, and the transportation time of goods is short, the transportation safety is high, and the customers transporting high added value goods are less sensitive to the freight. When the freight rate difference between two freight forwarders is too large, customers will choose freight forwarders and take freight as an important cost factor for business operation. Therefore, reducing operating costs, improving service quality and other problems urgently need to be solved by Shuangliu Airport cargo company.

4.2.3 Threat of new entrants

Entrants are newcomers to air cargo. Entrants usually have sufficient social resources, transportation resources and price resources before seizing market shares. Shuangliu Airport Cargo Company is currently acting as transport agent for all airlines except China Southern Airlines. With the construction of Chengdu's new airport, other airlines will also build independent cargo terminals at the new airport in the future. Moreover, the new airport will attract more investment, which will provide financial support for potential entrants and bring certain impact on traditional civil aviation freight.

4.2.4 Substitute threat

With the development of land and water transportation, the advantage of air cargo is gradually weakened. Under normal circumstances, the owner of cargo in the face of large volume of goods, or for short - and medium-distance transportation is more inclined to choose land and water transportation. In the face of light, emergency transportation or long-distance transportation, more inclined to choose air transportation. Therefore, air cargo should make full use of its own characteristics and core competitive advantages, vigorously develop long-distance transportation, and strive to stand out among many transportation ways. In terms of timeliness, air cargo at Shuangliu Airport is hardly threatened by substitutes in terms of emergency cargo business. For goods that are easily corroded, Shuangliu cargo is rarely threatened by substitutes, and even less so on medium - and long-range routes.

4.2.5 Competition degree of peers and competitors

With the continuous development of the society and the growing demand of cargo owners, air cargo is no longer a simple transport of goods from one airport to another airport, but from door to door, from the sender to the recipient of the whole chain transport service. Today's air transport industry focuses on every link, is committed to improving the satisfaction of cargo owners, to provide cargo owners with efficient and convenient delivery experience.

First of all, Shuangliu Airport freight will face relatively strong competitors in the same industry are SF Express, post and other mature logistics enterprises. Despite its own conditions, Shuangliu

Airport cargo also has a significant capacity and a huge route network. However, due to the limitations of system, capital and other factors, the freedom of cargo plane flight, enterprise operation mode and cargo owner delivery mode still need to be improved and promoted. Secondly, Shuangliu Airport freight to face Jingdong, Cainiao and other e-commerce enterprises. Although Shuangliu Airport cargo has formed a service system, it does not make sufficient use of big data and various new technologies, and does not keep up with the pace of social development in time. It is in urgent need of adjustment. Therefore, it is not difficult to see that, against the backdrop of the diversified development of air cargo enterprises, the internal market competition in the air cargo industry is very fierce. All enterprises are playing their own strengths, trying to explore and seek the needs of shippers. From the perspective of shippers, they consider how to optimize the process and improve the service, attract more shippers and improve their own profits. Take a place in the freight market. Shuangliu airport freight is facing certain competitive pressure, whether facing mature logistics enterprises such as SF Express and Post, or e-commerce enterprises such as Jingdong and Cainiao.

4.3 SWOT analysis

4.3.1 Advantage analysis

On the one hand, the advantages of Shuangliu Airport's air cargo business are reflected in its resources, such as brand resources, market resources and technical resources, which are of great value to the development of air cargo business and bring strong competitive advantages to the company's air cargo business. Specifically, the air cargo business of Shuangliu Airport has a strong brand awareness and influence, which is conducive to the sustainable development and expansion of the business. At the same time, it has good market resources and has many customers and successful applications in the domestic air cargo market, which is conducive to the development of new customers and old customers' new needs; Strong technical resources provide a strong guarantee for the technical development of air cargo business. On the other hand, the air cargo business of Shuangliu Airport has good internal capabilities, strong research and development capabilities and service capabilities, to ensure that Shuangliu Airport can provide customers with good customer service, provide customers with high-quality customized products, ensure the safe and stable operation of the information system for customers, and professionally and efficiently deal with and solve customer problems.

4.3.2 Disadvantage analysis

In recent years, the development of air cargo business of Shuangliu Airport is relatively slow, and the business competition strategy is unclear and the target is unclear. In terms of products, although the company has a large number of products in its freight system at present, it lacks connectivity and unified development planning among all products. In today's rapid development of

freight logistics, existing products may find it difficult to keep up with the pace of freight business development. In terms of technology, some products still rely on old technology, and the innovation and application of information technology need to be improved. In terms of market, the freight business sector relies too much on the existing customer market, lacks significant profit growth points, and has a low level of internationalization. At the same time, it also relies on empirical methods when quoting products and services, and lacks a scientific and unified quotation system. In addition, in terms of company management, there are also problems such as low cooperation efficiency and poor communication among various departments. At the same time, there is a phenomenon of brain drain in the company, especially the loss of core technology and business talents, which has a negative impact on the development of the company.

4.3.3 Opportunity analysis

The construction of "One Belt and One Road" further promotes China's overall opening to the outside world, the deepening of economic globalization, the continuous promotion of international trade growth, coupled with the sustainable development of e-commerce, so that the air cargo market still has a large space for development. The further opening of the market breaks the original restriction of the area city, local protection and other problems, which has a certain effect on the further opening of the logistics industry of our country. Relevant government departments can also formulate relevant policies to encourage the development of small and medium-sized airports, encourage the development of air cargo enterprises and encourage the informatization construction of enterprises. The cooperation among market, enterprises and government also establishes relevant guarantee for the overall market of cross-region and cross-industry, which makes our goods transportation more mature. All these provide opportunities and impetus for the development of air cargo enterprises.

For Shuangliu Airport, the development of freight market in the new era and the demand for information technology bring new development opportunities to the company. The improvement of China's opening to the outside world will help Shuangliu Airport gradually enter the international market. National policy support will help build more airports, cargo agents and other air cargo enterprises, thus expanding the air cargo market; The emphasis on cargo transportation security at home and abroad has brought the new market demand of air cargo security information; The continuous development of science and technology promotes the application of new technology in air cargo.

4.3.4 Threat analysis

The air cargo business of Shuangliu Airport is facing threats from both the company itself and market competitors. For the company itself, it needs to make breakthroughs in management, market, products and technology to break the stagnant situation in order to obtain further

development. For market competitors, the strength of domestic competitors continues to increase, while foreign competitors gradually penetrate into the domestic market. They continue to nibble the market, posing a great threat to the development of air cargo business of Shuangliu Airport.

On the other hand, the air cargo business also faces a number of alternative threats. With the increasing popularity of bullet trains and high-speed railways, as a substitute for air transport, they will be directly impacted in the air cargo business in the short and medium range. At the same time, with the growth of aviation capacity, there is an imbalance between supply and demand in some routes. The situation that the capacity is too high and the demand is too low will lead to low air freight price and low profit margin. Still, air rates are generally higher than rail rates. In addition to other transportation challenges, the rapidly growing express delivery industry is also competing with traditional air freight. There are more and more super express companies like FedEx, UPS and SF Express. They often set up their own systems, providing the whole process of cargo transportation services, setting up their own airlines, developing their own cargo transportation systems, and even establishing their own airports. They try not to rely on the support of third-party cargo enterprises and information system providers. Strong competition from express delivery companies is squeezing the traditional air cargo market, posing challenges to air cargo enterprises and threatening third-party air cargo information system providers like Shuangliu Airport.

4.3.5 SWOT matrix analysis

Based on the above analysis and survey results, this paper arranges the external environment factors and internal strengths and weaknesses of the enterprise and constructs the SWOT matrix in the following table.

Table 4-1 Construction of SWOT matrix

<p>External analysis</p> <p>Internal analysis</p>	<p>Advantage</p> <ol style="list-style-type: none"> 1. Advantaged geographical location 2. Rich airline network 3. Advantage of regional supply 4. Forming the internal frame system 5. Customer satisfaction with service quality 	<p>Disadvantage</p> <ol style="list-style-type: none"> 1. Low efficiency of freight business process 2. Not enough publicity 3. Lack of professional and technical personnel
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<p>Opportunity</p> <ol style="list-style-type: none"> 1. Strong government support 2. Obvious advantages of export-oriented economy 3. A comprehensive transportation system 4. Opportunities brought by the development of e-commerce express delivery 	<p>SO Strategy</p> <ol style="list-style-type: none"> 1. Improve brand publicity and build unique brands 2. Build diverse transportation channels and networks 3. Provide convenient transportation services 	<p>WO Strategy</p> <ol style="list-style-type: none"> 1. Improve the recruitment system of talents and adjust the structure of talents 2. Use e-commerce big data to strengthen publicity 3. Optimize business processes to improve freight efficiency
<p>Threat</p> <ol style="list-style-type: none"> 1. The international environment is becoming more complex 2. The hinterland market grows slowly 3. Revenue pressure from COVID-19 4. The market is becoming more competitive 	<p>ST Strategy</p> <ol style="list-style-type: none"> 1. Develop security plans for international cargo flights to ensure staff safety 2. Drive customer growth with personalized and differentiated services 3. Strengthen cooperation with airlines to expand domestic and foreign airline network 	<p>WT strategy</p> <ol style="list-style-type: none"> 1. Develop passenger-to-cargo flights, carry out appropriate layoffs, and reduce losses 2. Take the transportation of epidemic goods as the publicity point to stabilize the mood of shippers

As can be seen from Table 4-1, Shuangliu Airport has unique advantages in its development environment and regional location, but it also faces the double superimposed pressure of market competition brought by complex external development environment. It should be noted that the vigorous development of e-commerce express delivery and cold chain logistics has brought good prospects for the development of air freight and vigorously opened up the international air logistics market. As mentioned in the previous question, SWOT is used here to analyze the cargo business of Shuangliu Airport, not to draw a single implementation strategy, but to analyze how to build differentiated cargo transport services of Shuangliu Airport by integrating various factors. In terms of transport channels, SO and ST strategies are adopted to create more diversified and rich transport networks and modes. In terms of products, SO and WO strategies are adopted to create more regional characteristics and safer transport products: In terms of service, SO and ST strategies are adopted to provide shippers with more convenient, convenient and safe transportation experience under the changeable market environment of epidemic situation: In terms of brand publicity, WO and WT strategies are adopted, and various information means are used to strengthen the publicity of characteristic brands. Besides, special services such as the transportation of epidemic prevention materials and the elimination of cargo under the epidemic are taken as the entry point of brand

publicity, so that more shippers can know about the cargo of Shuangliu Airport and increase the supply of goods in the current market environment.

Therefore, Shuangliu Airport cargo should give full play to its advantages, seize opportunities, and transform disadvantages and threats into strong potential for development through government support and its own efforts. In the increasingly fierce competition in the freight market, by integrating the advantages and characteristics of various strategies and from the four aspects of channels, products, services and brands, flexibly implement the differentiated competition strategy to create competitive transport modes, transport services and transport channels, constantly increase the cargo transport volume and shippers' satisfaction of Shuangliu airport freight, and achieve further profit and development of Shuangliu airport freight. Able to establish a firm foothold in the market.

5 Strategic choice and implementation plan of air cargo differentiation competition at Shuangliu Airport

Based on the in-depth analysis of the development factors of air cargo in Shuangliu Airport, this chapter makes a differentiated competitive strategy choice and puts forward an operable implementation plan.

5.1 Shuangliu Airport air cargo differentiation competitive strategy choice

5.1.1 Strategic objective

First of all, Shuangliu Airport adheres to the general tone of seeking progress while maintaining stability, takes the promotion of high-quality development as the theme, and takes the eight hard battles of "deepening reform, security guarantee, service quality, transportation and production, operation efficiency, upgrading and transformation, leading the Party building, and epidemic prevention and control" as the breakthrough point, comprehensively improves the modernization level of large airport governance capacity, and realizes the sustainable and healthy development of the airport during the transition period. The 14th Five-Year Plan is off to a good start. Secondly, in the face of the fierce competition in the current air cargo market, in order to ensure the sustainable, efficient and stable development of Shuangliu airport cargo, the concept of "emphasizing passenger over cargo" should be completely changed, the ownership restrictions should be broken, and passenger and cargo should be developed side by side at the same time, so as to achieve a step of profit from various aspects. Finally, based on the development of air cargo at Shuangliu Airport, the effective connection between civil aviation, land and water is further coordinated to achieve coordinated development, and the layout of new air cargo facilities and the global air cargo network system are gradually constructed. The air cargo network system drives the steady growth and development of Chengdu and even the national economy.

According to the current situation of air cargo transportation, Shuangliu Airport relies on the local rabbit first-class characteristic cargo products and location advantages, and jointly builds the air-ground combined transportation mode with other mature express enterprises with air cargo business, which promotes the further optimization of the allocation of core factors and resources, and greatly improves the comprehensive support capacity. In this way, Shuangliu airport cargo can not only continuously expand its profits and improve its market share, but also make Shuangliu Airport cargo more flexible in the face of changes in the air cargo market and even the influence of uncontrollable external factors, with sufficient space for adjustment. The second is to gradually establish Shuangliu Airport air cargo transport company, independently expand the transport business, maximize the transport advantages, improve market competitiveness. In the face of SF

Express, STO, Yto and other competitors, with service, product and other advantages to attract more owners, continue to increase their freight volume. Third, Shuangliu Airport freight has become a strong support to serve the national major strategy, promote the transformation and upgrading of economic structure, deeply participate in international cooperation and promote the high-quality development of our economy through its own development. Accordingly, it can get more policy support from the national government and realize long-term development.

To overcome the negative impact of the epidemic on the freight industry and make up for the losses in 2020. First, it plans to achieve a cargo throughput of 15 tons in 2022, which is 87% of that in 2019. Then, by the end of the 14th Five-Year Plan, it plans to achieve an annual cargo throughput of 220,000 tons and strive for 250,000 tons, far ahead of other mature air cargo enterprises, and transform itself into a value-management modernized enterprise. Thus, the driving force of economic and social development of the region served by the airport Group is significantly enhanced.

5.1.2 Channel differentiation

Expanding the diversified transportation network is the embodiment of the channel differentiation strategy of Shuangliu airport cargo business. The alliance between air cargo enterprises can improve the efficiency of cargo transportation and reduce the cost of cargo transportation by sharing the market resources, science and technology of air cargo business and guaranteeing the resources, so as to provide the basis for strengthening the cargo transportation network and guaranteeing the transportation quality, and thus realize the differentiation of channels and services (more diversified transportation channels and modes, differentiated services, etc.). Attract more sources of goods, further enhance their competitiveness). Moreover, the cooperation of air passenger transport enterprises has laid the foundation for freight transport cooperation, and freight related enterprises can continue to develop rapidly in accordance with the existing pattern and make full use of the mature model template provided by air passenger transport.

Airline alliance is an organization that realizes the sharing of flight codes, operation personnel, maintenance personnel and other factors through corresponding agreements reached by multiple airlines. It can not only form a larger route network, but also make flights more flexible and flexible at all times. Shuangliu Airport cargo can communicate with the airline alliance to reach consensus and sign corresponding agreements. With the corresponding support personnel, facilities and equipment on the ground, the alliance with airlines can be exchanged for more routes, so as to achieve mutual benefit and win-win situation, improve transport efficiency and reduce transport costs, and further combine its own geographical advantages and sound domestic and foreign air route network, so as to promote the formation of "supporting the trunk by supporting the trunk by supporting the trunk". In other words, routes of many branch airports are used to assist trunk airport

routes, and more branch airport routes are developed by route airport routes, so as to make more cargo routes of Shuangliu Airport and better solve the problem of "some cities cannot be directly delivered" in the survey results of Chapter 3, so as to improve the current problems of Shuangliu Airport's cargo business.

5.1.3 Product differentiation

The integration and optimization of transportation process reflects the product differentiation strategy choice of Shuangliu airport cargo business. In order to achieve customer satisfaction for the purpose of product concept, product content innovation. According to the problems revealed in the third chapter, Shuangliu Airport is unable to provide perfect functional services for the shippers. There are some cases that the transportation time cost of goods is too large and the goods cannot be delivered in time. Moreover, the operation mode and market competition mode are not diversified enough. Break through the traditional operation mode, achieve mutual benefit and win-win cooperation with freight forwarders, optimize the transportation process, improve the connection of all links of cargo transportation, and make full use of modern information technology to build a logistics information network platform. It can not only provide fast and convenient transportation products for the shippers, but also make the shippers timely understand the progress of cargo transportation. Now there are many freight forwarders in the market, they optimize the delivery process, procedures at the same time, give the shippers considerable price concessions. Therefore, it is imperative to promote product differentiation.

At present, the speed, price and convenience of air cargo are the main factors that determine the market share of air cargo enterprises. Shuangliu Airport cargo should identify the core competitiveness of enterprises, create transport products that are different from other air cargo enterprises, and provide more efficient and convenient transport services for cargo owners, so as to achieve product differentiation competition. It is necessary to integrate freight forwarding resources, establish cooperative relations with various freight forwarding companies, and cooperate with freight forwarding companies to reduce the time lost in various links of freight transportation. In this way, the air cargo at the airport can effectively reduce the transport cost, so as to have higher transport efficiency and lower transport price to alleviate the impact caused by the traditional transport mode.

5.1.4 Service differentiation

The implementation of "one-stop cargo" service reflects the service differentiation strategy of Shuangliu airport cargo business. Take customer as the center to customize professional and personalized services, stand in the perspective of owners to consider problems, solve problems, to provide owners with intimate and comfortable, efficient and convenient transportation services. First, customize specialized products and services. By strengthening cooperation with e-commerce enterprises, we will build the whole industry ecological chain of "e-commerce + freight", and achieve

mutual benefit and win-win results with e-commerce enterprises and complement each other's advantages. The whole process from shipper to delivery, full coverage of quality services, to provide door-to-door e-commerce express delivery services; Open up new markets. Air cargo has the characteristics of fast speed and safety, so it has unique advantages in the transportation of high value-added express mail, precision instruments, biomedicine, live animals and other goods. By taking full advantage of this feature, we can provide customers with exclusive logistics solutions and customize the operation details of each transportation link, so as to make the shippers rest assured. Ensure that valuables are transported "unscathed"; According to local conditions, the development of special freight products.

Second, we will develop a flexible pricing system. To dynamically cope with the changes of external market environment, Shuangliu Airport should focus on the study of pricing strategies conducive to the development of cargo market, implement different pricing strategies for different routes, shipping seasons and goods, constantly adjust prices, launch price preferential activities, attract shivers from the price aspect, and further adjust the relationship between supply and demand.

Third, we will improve our capacity for product and service innovation. It is necessary to make full use of the deep integration of emerging technologies such as cloud computing and Internet of things with business processes, record the owners' preferences, common addresses, prices, services and preferences, and tailor more high-quality, novel and distinctive services for each owner.

5.2 Implementation plan of differentiated competition strategy for air cargo of Shuangliu Airport

5.2.1 Expanding the freight market

Under the current situation of normal epidemic, we try to grasp the changes of the owners' mentality, adjust the brand publicity content, and bring reliable and stable feelings to the owners. Thus, it will cultivate new market growth points, provide impetus for the continuous improvement of cargo volume of Shuangliu Airport, and lay the foundation for the implementation of the product and service differentiation strategy of "door to door, point to point, high speed". In recent years, the repeated outbreak of COVID-19 has had a great impact on the air cargo industry, and many air cargo enterprises have suspended operations. The cargo of Shuangliu Airport finds the right opportunity, actively promotes the cargo policy of cargo charter and passenger cargo conversion, and carries out the transportation of medical supplies with most of the national navigation points. At the same time, actively to old customers, major customers to issue questionnaires, grasp the psychology of the owners, understand the needs of owners. This not only directly improves the reliability of Shuangliu Airport cargo in the eyes of cargo owners and increases the passenger source, but also realizes the service differentiation of Shuangliu Airport cargo and improves the competitiveness of Shuangliu Airport cargo in the industry. Secondly, strengthen cooperation with

cross-border e-commerce enterprises and sign cooperation agreements with some e-commerce platforms. By utilizing the passenger resources accumulated from emerging technological advantages such as big data and cloud computing on the e-commerce platform, the air cargo of Shuangliu Airport is promoted to shippers on the platform, trying to make the cargo of Shuangliu Airport the primary choice of shippers and promote the development of business. In addition, the monthly regular meeting system is established within the freight company, and special meetings on cargo volume improvement are held regularly to summarize the cargo volume of this month, reflect on the problems and deficiencies in the company's business and management mode, adjust the cargo policy of Shuangliu Airport (price, service, etc.) according to the changes in the situation, and formulate the Airport Cargo Volume Implementation Plan and Cargo Volume Subsidy Management Measures. From the system to provide strong support for freight volume.

Resources in the domestic market are limited, so core resources must be invested to focus on key markets, seize the time window to increase freight revenue, timely change policies in the face of the epidemic situation in different countries abroad, and cooperate with the provision of hospitality for changing cargo flights. In order to further improve the transportation efficiency, further tap the potential of belly cabin, optimize the ratio of passenger and cargo transportation, maximize the flight transportation capacity, try to achieve full passenger and cargo flights, and reduce the occurrence of passenger and cargo dissatisfaction. Strengthen freight rate management and realize reasonable prices by signing agreements with large volume freight forwarders to make them self-operating. At the same time, the transportation price should be reduced appropriately for the society, and the express transportation should be seized to give full play to the fast and efficient characteristics of air cargo and deepen the concept of product differentiation.

5.2.2 Strengthening the construction of major air routes

On the basis of consolidating the existing routes, Shuangliu Airport will continue to expand other international traffic points besides Japan and South Korea. In combination with different seasons, low and peak seasons of tourism and other factors, we will strive to promote the opening of new shipping points in Southeast Asia. On the basis of the original tourist routes from Dalian to Singapore, Bangkok, Nha Trang and other destinations, the charter flight routes to Yangon, Myanmar will be opened, which will bring Dalian to 6 navigation points in Southeast Asia, which will not only facilitate the import and export of goods for enterprises, but also provide convenient transportation services for shippers. In this way, compared with other air cargo competitors in the same industry that can not fly directly, it saves time and effort, and the price is moderate, so as to achieve the differentiation of channels and products. At present, Shuangliu Airport cannot open international routes to America and Europe due to hardware conditions such as runway length, runway width and corridor bridge height. On the basis of in-depth research on the effectiveness of flight subsidies and passenger market demand, combining with the transfer information obtained

from joining the airline alliance, Shuangliu Airport Cargo can provide certain subsidies to airlines and work out the roadmap and schedule of intercontinental routes. One or two flights a week, with price advantages and flight time advantages, to provide customers with differentiated services, obtain more supplies from competitors in the same industry, improve the competitiveness of Shuangliu airport cargo.

In order to maintain the advantage of "multiple points and broad areas" of the airline network, we will further develop the mode of "supporting the trunk with branches and supporting the trunk with numerous branches", and strive to increase the proportion of direct flights to first-tier and second-tier cities. For domestic first-tier cities, firstly, actively communicate with airlines to exchange direct flight routes for first-tier cities with preferential parking prices, so as to improve the speed of air cargo transport at Shuangliu airports; Second, strive for the quality of direct flights to first-tier cities, compared with other competitors in the same industry, can bring great convenience to the cargo transport owners; Third, for the flights that have been opened, when the cargo owners transport goods, give certain price concessions, so that they are more competitive than other freight companies.

5.2.3 Promote the construction of freight transport bases

The construction of cargo base can provide space for the cooperation with Sichuan Airlines cargo, further increase the cargo volume of Shuangliu Airport, enrich route resources, and provide more diversified cargo transportation options for shippers. Second, it can promote the application of high and new technology and information means in the process of cargo transportation, improve the efficiency of the connection between the links of cargo transportation, improve the speed of cargo transportation, fundamentally reduce the damage in the process of cargo transportation, and provide the owners with high speed, intimate and convenient transportation services; Third, it can make the internal management of cargo of Shuangliu airport more systematic, procedure-based and standardized, and provide guarantee for cargo transportation.

The development of aviation logistics at Shuangliu Airport should not only pay attention to the aviation business development of the base airlines, but also cooperate with each other, strengthen the coordinated development, and achieve the purpose of win-win. Therefore, Shuangliu Airport cargo can share resources such as security management or cargo transportation support with China Southern Cargo, including cargo transportation vehicles, personnel sharing, and the merger of cargo far quality control departments, thus reducing the freight expenses of China Southern Airlines and making the management of China Southern cargo more systematic and standardized. Through sharing the cargo resources of Shuangliu Airport in exchange for the cargo agency of China Southern Airlines or part of the cargo volume of China Southern Airlines, and then reach a cooperative relationship. Meanwhile, Shuangliu Airport cargo needs to hold meetings with China

Southern Cargo Organization from time to time to strengthen communication and coordination, and timely adjust and improve cooperation methods and problems.

Relying on today's developed information technology and Internet technology to realize the function of interconnection, can improve the quality of freight service of Shuangliu Airport, bring convenient transportation experience to the shippers, and realize the differentiation of services and products. The establishment of Shuangliu Airport cargo air logistics information network can not only promote the development of Shuangliu airport cargo, but also promote the development of our air cargo logistics informatization and solve the problem of information immobility in the industry.

In the face of Shuangliu Airport's increasing demand for aviation logistics talents, relying on the government's preferential policies for talents, Shuangliu Airport should establish a perfect training system for aviation logistics talents. First, a perfect talent introduction plan should be formulated to effectively guarantee the supply of talents, so as to improve the quality of air cargo professionals. The second is to attach importance to personnel training, regularly send backbone training, increase the introduction of advanced air cargo management concepts, to provide technical support and personnel guarantee for the development of air cargo at Shuangliu Airport. Third, formulate a systematic and strict employee reward system. By motivating employees' enthusiasm for work with rewards, employees can bring pleasure to the owners and people around them and promote the improvement of corporate culture.

5.2.4 Strengthen brand operation management

By identifying the core advantages and characteristics of Shuangliu airport cargo, we can dig deep the differences between the enterprise and its competitors in the same industry and build differentiated brands. Combined with the current situation of social economy and epidemic prevention and control, various media are used to spread or hold various publicity activities to achieve brand differentiation; By strengthening internal brand management and rewards and punishments, the healthy competition of internal brands can be realized, constantly stimulate the emergence of new personalized brands within enterprises, and further boost the implementation of brand differentiation strategy. These measures not only improve the popularity of Shuangliu airport cargo among the public, increase the social cargo source of Shuangliu airport cargo, but also lay the foundation for building a differentiated brand belonging to Shuangliu airport.

The optimization of multimodal transport, deepening cooperation with freight forwarders, these differentiated services as the focus of publicity work, to create a new brand of personalized service. Continue to carry out the air cargo business market promotion activities, combined with the "Aviation Festival" and other activities, vigorously promote the advantages and characteristics of Shuangliu Airport cargo, increase the popularity of the public, so that more cargo owners know and understand Shuangliu Airport cargo, in the process of delivery can voluntarily choose the

transportation of Shuangliu Airport cargo. Moreover, the current epidemic situation is severe, the market is depressed, and the mood of shippers is unstable, which leads to the decline of cargo transportation volume and makes cargo transportation face greater challenges. At this time, Shuangliu Airport cargo must seize the opportunity. In the current pessimistic transport market environment, centering on the characteristics of "replacing goods with customers" and "eliminating cargo", it carries out vigorous publicity through social popular media software such as Douyin, Weibo and wechat, so as to improve the brand trust and social awareness of shippers and realize differentiated development from other brands.

6 Conclusion

First of all, this paper lays a solid theoretical foundation for the development of air cargo business of Shuangliu Airport by sorting out relevant theories of enterprise strategic management. Secondly, it collects data through questionnaire survey, analyzes the internal environment by combining the existing facilities and resources of Shuangliu Airport, defines the development direction, and gives full play to its own advantages. Then, in order to explore the current and upcoming crises and challenges facing the air cargo business of Shuangliu Airport, Porter's Five Forces model and PEST are used to analyze the current industry environment and macro environment of the air cargo business of Shuangliu Airport. Finally, the SWOT matrix model is used to comprehensively analyze the future development of air cargo business of Shuangliu Airport, and then the differentiated competition strategy suitable for the actual operation of air cargo business of Shuangliu Airport is formulated, as well as the strategy implementation plan.

With the rapid development of the current social economy, people's requirements for aviation logistics are gradually increasing, and more emphasis is placed on the convenience of logistics and the sense of access to services. Now logistics enterprises bloom, resulting in fierce competition in the aviation logistics market. If Shuangliu Airport wants to develop its air cargo business continuously, stably and rapidly, and take the lead in the market, it is necessary to find its own positioning, develop its strengths and circumvent its weaknesses, and give full play to its own advantages. While striving to build the brand and improve the service, we will cooperate with the airlines to form complementary advantages, so as to build regional air cargo hub, improve the core competitiveness, and make the cargo business to professional development. With channel differentiation, the airline network is constantly expanded to build air-ground, air-air and air-sea combined transportation. Compared with other competitors, the company has faster routes, diversified transportation times and a huge transportation network. To create a more reasonable price of transportation lines, more concise transportation process, more comprehensive transportation system with product differentiation; To create more convenient and intimate cargo transportation services by service differentiation; Brand differentiation to create a wider visibility, the internal atmosphere is more positive sunrise enterprises.

In 2020, despite the strong impact of the pandemic, air cargo is still growing against the trend. There is no doubt that air cargo has unlimited potential in the future. At present, the global economy is still uncertain in the context of the impact of the pandemic, but the bucking growth in air cargo makes people see the trend and confidence of the accelerated recovery of our economy. The lockdown of the epidemic has promoted the development of e-commerce, letting people see the power of digital globalization for economic development. At present, almost all industries are

carrying out digital construction. The natural barriers between different subjects of the air cargo industry determine the low concentration of the industry. Coupled with the penetration of the army of Internet enterprises, the competition pressure of the air cargo industry is unprecedentedly fierce. Therefore, airports and airlines should devote themselves to building digital operation systems to make transport services more perfect and convenient.

In this environment, the air cargo competitiveness of Shuangliu Airport is relatively weak, and its business capacity and service level need to be further improved and perfected. In addition, the surrounding high-speed rail transport is an alternative to air freight transport. This paper aims to solve the air cargo crisis of Shuangliu Airport, discuss and study the differentiated competition strategy of air cargo business, strengthen multi-party cooperation, promote the steady development of air cargo of Shuangliu Airport in the fierce competition market, and make sustained profit a must answer.

In this paper, combined with the actual situation and development background from many aspects and many angles, it makes a comprehensive and systematic analysis on how to further develop the air cargo of Shuangliu airport, and has made some progress and obtained some conclusions. However, in my opinion, the research of this paper is not deep enough and thorough. Due to various objective factors of the enterprise and the nature of aviation safety, as well as my lack of ability and work experience, and insufficient time for this study, the conclusions of this paper need to be improved and verified in a more comprehensive way if they are to be applied. Not only that, there are many details that need to be considered one by one.

It is not difficult to see that the future of air freight will be the owner of the cargo at home, using a variety of communication tools to transfer goods between cities. Before shipping strange goods, Pinghe will be familiar with the shipper's habits, preferences, change passive service to active service, so that the service experience is more comprehensive and high-quality. The future air logistics network, will be in all directions, all over the world. Therefore, the research of this paper not only helps Shuangliu Airport to stand out in the competition, but also provides a forecast and prospect for the future aviation logistics market. Although this paper tries to collect real and effective data through questionnaires and field interviews, the reliability of the data is reduced due to the small sample size. In the current era of big data, more scientific data collection and data analysis methods can be considered for future research methods. In addition, in future research, interviews with senior leaders of enterprises will help supplement the conclusions of this paper from the perspective of leadership.

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Appendices

Appendix 1: Air Cargo Survey at Shuangliu Airport (Airport Senior Management and Key Staff)

In order to further improve the air cargo service quality of the airport, we conduct a questionnaire survey to collect valuable opinions and suggestions. We hope that you can actively cooperate!

Thanks!

Gender: _____ Age: _____ Position: _____

1. How long have you been engaged in air cargo at Shuangliu Airport?

- A. 5 years and below
- B. 5-10 years
- C. 10-20 years
- D. 20-30 years
- E. More than 30 years

2. Which of the following types of goods are often sent by the consignor you contact?

- A. Food, fresh
- B. Articles and clothing
- C. Letters and documents
- D. Valuables and jewelry
- E. Others

3. How often do you come into contact with new owners every day?

- A. Hardly
- B. Very few
- C. Occasionally
- D. often
- E. Frequent

4. Are you satisfied with the current operation and management of cargo services at Shuangliu Airport?

- A. Not satisfied
- B. More dissatisfied
- C. Medium/fair

D. Relatively satisfied

E. Be satisfied

5. Are you satisfied with the advertising of air cargo service of Shuangliu Airport?

A. Not satisfied

B. More dissatisfied

C. Medium/fair

D. Relatively satisfied

E. Be satisfied

6. What do you think are the main problems of air cargo at the airport? (multiple options are available)

A. Low utilization rate of cargo hold

B. The goods are not kept completely

C. The mailing price is not reasonable

D. Inconvenient delivery/pickup

E. Some cities cannot mail

F. Shipping process information is not transparent

G. The internal process is not easy enough

H. The cargo may arrive late due to bad weather, air traffic control and other external noises

L. Others (please list them if applicable: _____)

7. Compared with logistics companies such as SF Express and Post, what do you think are the advantages of air cargo at Shuangliu Airport when sending goods? (multiple options are available)

A. Fast speed

B. The goods are kept intact

C. Fresh goods keep fresh

D. Can transport special goods (valuables, medical organs, etc.)

E. International freight transport at airports covers a wider area than logistics companies

F. Others (please list them if applicable: _____)

8. Compared with logistics companies such as SF Express and Postal Service, what do you think are the disadvantages of air freight at Shuangliu Airport when it comes to mailing goods? (multiple options are available)

A. The price is unreasonable

B. Not fast enough

- C. The goods are not kept completely
- D. Inconvenient delivery/pickup
- E. Some cities in China cannot be reached and need to be changed during transportation
- F. Others (please list them if applicable:_____)

9. What do you think is more needed in the future development of airport air cargo? (the multiselect two)

- A. Is convenient
- B. The price is affordable
- C. Fast speed
- D. Publicity
- E. Others (please list them if applicable:_____)

10. Do you have any other comments or suggestions on air cargo at Shuangliu Airport? (Brief answer)

Appendix 2: Air Cargo Survey at Shuangliu Airport (Cargo Owners)

In order to further improve the air cargo service quality of the airport, we conduct a questionnaire survey for the majority of cargo owners to collect valuable opinions and suggestions. We hope that you can actively cooperate! Thanks!

Gender: _____ Age: _____ Position: _____

1 May I know your occupation?

- A. Students
- B. State organs
- C. Enterprises/institutions
- D. Self-employed
- E. Others

2. How often do you usually send express mail?

- A. Hardly
- B. Very few
- C. Occasionally
- D. Often

E. Frequent

3. What kind of goods do you often mail? (multiple options are available)

A. Food, fresh food

B. Articles and clothing

C. Letters and documents

D. Heavy goods and jewelry

E. Others

4. What express or logistics company do you usually choose to post strange items?

A. Along abundant

B. Postal

C. Gravels

D. Airport self-management

E. Others

5. How do you get to know the express or logistics company you choose? (multiple options are available)

A. Internet

B. Television, radio or other means of communication

C. Introduced by a friend

D. Other

6. What is the most important factor that determines your choice of express or logistics company in the process of mailing strange goods? (can choose more)

A. Price

B. Speed

C. Integrity of goods preservation

D. Is it convenient to send/pick up the goods

E. Whether transit is required during transportation

F. Others (please list them if applicable:_____)

7. Are you satisfied with the air cargo service of Shuangliu Airport?

A. Not satisfied

B. More dissatisfied

C. Medium/fair

D. Relatively satisfied

E. Be satisfied

8. Compared with logistics companies such as SF Express and Postal Service, what do you think are the disadvantages of air freight at Shuangliu Airport when it comes to mailing goods? (multiple options are available)

A. The price is unreasonable

B. Not fast enough

C. The goods are not kept completely

D. Inconvenient delivery/pickup

E. Some cities in China cannot be reached and need to be changed during transportation

F. Others (please list them if applicable: _____)

9. What do you think are the advantages of air cargo at Shuangliu Airport compared with logistics companies such as SF Express and Postal Service when shipping strange goods? (multiple options are available)

A. Fast speed

B. The goods are kept intact

C. Fresh goods keep fresh

D. Can transport special goods (valuables, medical organs, etc.)

E. International freight transport at airports covers a wider area than logistics companies

F. Others (please list them if applicable: _____)

10. Do you have any other comments or suggestions on air cargo at Shuangliu Airport? (Brief answer)
