

Case Repost

The Enlightenment of the Cost Control of Regional Tourism Airports: Taking Airport A as an Example

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Abstract: Since the reform and opening up, the civil aviation industry has accelerated its pace of development and achieved world renowned achievements. It has been the world's second largest civil aviation transportation market for many years. With the rapid development of the civil aviation industry, the construction of transportation airports has always maintained a rapid development trend, the number of airports and business volumes continue to increase, and the annual passenger throughput has basically maintained a double-digit rapid growth. However, at present, the popularity of China's aviation market is not high, the situation of insufficient capacity of regional airports and large losses has not changed, and a balanced and coordinated development of the airport system has not really taken shape. If China is to move from a major aviation country to an aviation power, it must make up for the shortcomings of insufficient regional airport development as soon as possible. The regional tourism airport is the main component of the regional airport and the most active part of the development of regional airports. It complements the development of regional airports and focuses on accelerating the development of regional airports. Airport A was completed and opened to traffic in May 2017. It is a young and distinctive regional tourist airport. The annual passenger throughput has jumped from more than 100,000 passengers to more than 500,000 passengers in 2019. In the operation process, there are many worth learning from local. Especially in terms of cost control, Airport A creates "airport+" tourist traffic to improve passenger throughput, promotes a transition to management to adjust and optimize the cost structure, green planning and construction to reduce resource and energy consumption, and combines supervision with services to enhance the effectiveness of financial supervision, all of which give a good inspiration for other regional tourism airports to improve cost control.

Keywords: Cost control; Regional tourism airport; Enlightenment.

1. Introduction

In the new era, the principal contradiction in Chinese society has translated into the contradiction between unbalanced and inadequate development and the people's ever-growing needs for a better life. General Secretary Xi Jinping has stressed that changes in the principal contradiction in Chinese society are a historic change concerning overall development. On the basis of continuously promoting development, we should strive to solve the problem of unbalanced and inadequate development. As an important national infrastructure closely linked to urban construction and closely related to the people's production and life of the people, the development of the airport also faces severe challenge.

1) In November 2018, the Civil Aviation Administration issued the new era of civil aviation power construction action outline, emphasizing the popular aviation is the primary characteristics of civil aviation power, put forward: "to closely around the people's traffic circle, work circle and life circle, provide the whole process, diversified, personalized and high quality aviation service products new supply, strive to build 'civil aviation +' ecosystem."

2) At present, the development of the airport is not balanced and coordinated. There is still a tendency to aggravate the contradiction between large airports generally facing or on the verge of capacity saturation and the

general capacity shortage of many civil aviation regional transport airports (hereinafter referred to as “regional airports”). The phenomenon of “big support small hunger” may be more prominent, the situation of regional airport losses has not fundamentally changed^[1-3].

3) In China, the future increment of China’s airports is mainly regional airports, but mainly small and medium-sized airports. The development of regional airports cannot be hoped by financial subsidies. Comprehensive research on regional airport investment, construction, management and benefits needs to keep up, especially on how to find a balance between the long-term social benefits and the recent economic benefits of the airport. Construction, management, investment and efficiency, build one loss, greed and integrity, and build “decoration airports” and “lonely airports”. Perhaps it is because of the loss operation of regional airports and “eating policy (subsidy) food”. Now, it is found that there is much study on the industry policies, operation mode and management system of regional airports, but there is less study on the finance and cost of regional airports, and the research on the cost control of regional tourism airports is even more blank^[4].

2. The Overview of Airport A and Tourist Features

Airport A is 8 kilometers away from the city center, and construction started at the end of 2013, and was completed and opened in May 2017. It is a Class 4C regional airport, with a planned passenger throughput of 750000 passengers in 2025.

Relying on its rich tourism resources and important transportation hub as a location, Airport A gives full play to its advantages of air-rail combined transportation. Airport A has a rapid development momentum, the flight access cities are increasing year by year, and the passenger throughput is growing rapidly. In 2017, Beijing, Shenzhen, Chengdu, Huizhou and Qingdao were opened. In 2018, Harbin, Kunming and Zhoushan were opened to navigation. In 2019, Jinan, Sanya, Guiyang and Ningbo were opened, and the passenger throughput exceeded 500000 in two years.

City A builds a tourism city, and tourism turns into the most major industry. Tourism accounts for up to 80% of gross regional product (GDP). Two consecutive years of 2018 and 2019 show that the proportion of tourism (GDP) score, ranked in the top five in China.

Over the past three years of Airport A, it has brought great convenience to tourism of City A. The number of tourists has been increasing year by year, accelerated the transformation of tourism resources to economic advantages, has become a “new engine” of high-quality economic development, and has become a veritable “tourism airport”. In 2016, City A has not entered the Chinese tourist city attraction list; in 2018, its tourism revenue increased from 72.1% last year, by 10.2 percentage points, among the top 10 tourist cities in China; in 2019, it continued to maintain the top 12 list (top 12).

3. The Cost Control Practice and Enlightenment of Airport A

3.1 Building A Tourist Airport and an External Value Chain in Which Government Airports are Mutual “Suppliers”

At present, the airport cargo transport volume is relatively small, and the passenger throughput is the most direct factor affecting the aviation income, which is related to the per capita management cost shared by the converted passengers. Airport throughput increases, aviation revenue increases, cost declines in the condition that fixed cost expenditure is constant^[5,6]. Fully realizing this, they will consider the interests of passengers, airlines and other related parties as considering the interests of the airport, and they will actively coordinate the municipal government, build convenient and fast traffic network between the airport and scenic spots, improve the transportation facilities tourism cohesion, and solve the passenger tourism “difficult consumption, expensive consumption”.

The airport will first get through the high-speed railway station, relying on the advantages of high-speed railway directly to the scenic spot, form the combined transport advantage of “scenic areas + high-speed railway

+ airport”, and realize that “going to the airport is equal to going to the high-speed railway station and the scenic spot”. A high-speed railway is very convenient. Direct to Wuyuan, Sanqing Mountain and Guifeng, especially to Wuyuan, the time is short (23 minutes–33 minutes), many trips (12 trains during the day), and the price is cheap (the highest second class seat is less than 40 yuan). The airport was officially opened on May 28, 2017, and the high-speed railway station to K001 Road of the airport opened on May 27 just one day in advance. The route arranges departure times according to the “convenient and fast” principle to ensure that passengers going to the airport arrive before an hour, and that passengers coming from the airport can arrive immediately.

The airport focuses on opening up the main scenic spots, realizing that “to the airport is equal to the scenic spot”. As early as the planning and construction stage of the airport, the urban transportation facilities connected with the lines from the airport to the scenic spot in advance, and invested a huge amount of money in building and rebuilding highway facilities. At the end of 2017, Peking Road and Tianyou Avenue, the municipal road project with the largest one-time investment scale (2.18 billion yuan), were completed and opened to traffic. After completion, it became the urban main road connecting the A airport and the high-speed railway station. The North Road of A is the main road running north-south in the central city, connecting the airport and Lingshan scenic spot. Tourists can reach the scenic spot in only half an hour by drive after they get off the plane, which has a great attraction for tourists with short transit time. Tianyou Avenue is a fast passage to undertake the east-west high-speed railway district, the east area to the central urban area, Airport A and Lingshan scenic area. City A is currently planning to build an urban rail transit connecting airports with scenic spots, considering more tourism. Taking out of the traditional thinking of “urban rail transit is limited to urban construction”, the light rail transit will not open high-speed rail and several other districts and counties, involving many tourist attractions. From the current progress, the high-speed railway station of City A and the airport are both important stations of light rail transportation.

The airport also explores tourism charter services, and gives full play to the dual advantages of tourist destination and tourist source of City A. While accessing the land to Jiangxi tourism, it actively organizes foreign trips, so as to realize that “an airport is equal to a tourist city”. In 2018, the airport connected with tourism group of Province A and completed the layout of the Kunming-City A-Harbin route in the form of charter flight.

Regional tourist airports should have a deep understanding of the “supplier” relationship between the government and airports. Model the government and airports as mutual external value chain “suppliers”. For airports, the supporting facilities “supply” formed by government investment are used free of charge, and the return of government “suppliers” will be realized through the urban consumption of passengers. For the government, airport facilities and services to bring passengers do not require government payment to the government (the government voluntarily gives awards to attract passengers), and the return of airport “suppliers” is achieved by increasing aviation revenue and diluted management costs. The government and airports “supply each other, do not buy each other, with returns from co-customers—Airlines and travelers”. The value of the supplier value chain is consistent, namely increasing airlines, opening up more routes and improving passenger throughput.

3.2 Transforming to a Management Airport, Constantly Adjusting and Optimizing the Cost Structure in the Cost-Benefit Comparison

It is the trend of the times to change from operation to management. It is especially necessary for regional airports with insufficient funds, short manpower and limited conditions^[7]. At the beginning of navigation, Airport A has fully realized that if the conformist regulation continues to follow and copy the traditional operation mode and still develop in accordance with the operation mode, it is likely to lose the good opportunity to choose a healthy development, and the airport supply-side structural reform must be promoted. Airport believe that with the development of the tourism industry of City A and business environment improvement, there can be competitive introduction of airport and airlines third party specialization. Airport business basically separated by paid transfer management rights, so as to improve the marketization of public infrastructure platform and

realize the airport from facility platform manager to platform supplier role.

In the past three years, Airport A, according to the basic idea of “understand exactly in one step, make conditions gradually mature, promote step-by-step practice”, has been exploring the strategy of the construction of management model, adjusting cost structure and optimizing operating cost, and the strategy is as follows:

One is the aviation ground service from the temporary agent to the final withdrawal. Aviation ground service business is usually provided by three types of institutions, one is the airlines themselves, the airport agent, and the third is the introduction of third-party aviation ground service professional companies. The 2018 National Civil Aviation and Aviation Safety Work Conference required that airport operation risks should be strictly controlled, airports should be urged to fully open the ground service agency market, and improve the quality of ground service guarantee. But the actual situation at Airport A is that the flight routes are not dense enough, and the airlines are small and reluctant to set up ground services at small airports, and it is unrealistic to require or expect the relevant airlines to set up their own ground service departments at Airport A. It is also due to flight saturation problems, it is also more difficult to introduce specialized third-party aviation ground service companies.

The Airport is currently temporarily acting as a proxy for:

1) Airport represents “airline excess baggage charge business”, which currently outsource it to service providers and pays service fees in a certain proportion of the fee amount. In 2019, the airport received a total of 404,600 yuan from over heavy luggage revenue, a service fee of 64,000 yuan, and a cost ratio of 15.82%. If you hire a full-time employee for this purpose, according to the average labor cost of Airport A, the annual cost is 123,500 yuan, almost twice the outsourcing party’s service fee.

2) Airport acts as the “Airlines Delay Passenger Service”, which currently operates as a proprietary business (see Table 1). First, the agency income has declined year by year. Due to the promotion of tourism, the number of airlines increased by the airport agents, but the airlines gave fewer and fewer licenses. Flight delay revenue decreased to 361,100 yuan, and the proportion of the airport non-aviation revenue also decreased from 8.53% in 2018 to 6.23% in 2019. Revenue is also expected to drop to 250,000 yuan in 2020. Second, the costs and expenditures are relatively unchanged. In 2019, after difficult negotiations between the airport and the agreement hotels, the relevant costs were reduced to 147,400 yuan. Cost expenditure is expected to be maintained at 150,000 yuan in 2020. Third, the formation of accounts receivable should be done. The “flight delayed passenger service” ground agent service is not only increasingly difficult to obtain income, but also a problem, that is, the airlines pay these funds relatively slowly, and the income is difficult to account, which not only increases the pressure of the cost of capital, but also increases the cost of urging enterprises. With declining revenue, fixed costs and slow revenue arrival, it is not wise to continue its proprietary flight delay services. Other ground services such as VIP first class services of airport agent airlines are similar.

The future vision is to focus on the main business of aviation and create conditions to achieve the timely and gradual withdrawal of the ground service agents of airlines.

Table 1 Comparison of revenue and expenditure of “flight delay passenger service” (unit: 10,000 Yuan).

	Income	Expenditure	Income-expenditure
2018	39.91	18.9	18.01
2019	36.11	14.74	21.37
2020	Predic-tion: 25.00	Prediction: 15.00	Prediction: 10.00

The second is the paid transfer (franchise, lease) business. The commercial area of the terminal chartered a commercial company in Tianjin to engage in comprehensive commercial retail such as fast food and local products. The parking lot in front of the terminal was contracted to the management of an aviation business service company in Tianjin. Health and property management are handed over to local specialized companies.

Income comes first from the advance payment from the customer, and then the income is confirmed month by month, without arrears. Airport is set up “safety and service quality” core “threshold”, adhere to the “three big” system and “basic principle of fairness, openness, notarization”, through the contract specification business transferee, make it “public safety is not harm, service standards are not reduced, the airport image is not damaged, emergency disposal to command, information disclosure according to the requirements”. By management, institutional setup is more streamlined, staffing is more reasonable; by benefit, cost structure is better and return capacity is more stable. However, according to Table 2, the absolute amount of Airport A franchise revenue and terminal site rental revenue is relatively low, and the proportion of non-aviation revenue is still very small (non-aviation revenue is mainly from airline ground agency services). However, it should also be seen that the absolute amount of revenue and the proportion of non-aviation revenue both show a good growth momentum year by year. I believe that with the great development of tourism in City A, this growth momentum will continue to accelerate. However, according to Table 2, the absolute amount of Airport A franchise revenue and terminal site rental revenue is relatively low, and the proportion of non-aviation revenue is still very small (non-aviation revenue is mainly from airline ground agency services). However, it should also be seen that the absolute amount of revenue and the proportion of non-aviation revenue both show a good growth momentum year by year. With the great development of tourism in City A, this growth momentum will continue to accelerate.

Table 2 Comparison between Airport A franchise and terminal rental income (unit: 10,000 Yuan).

Revenue type	2018		2019		Growth	
	Revenue position	The proportion of non-aviation revenue	Revenue position	The proportion of non-aviation revenue	Revenue growth	The proportion of non-aviation revenue accounted
Franchise	16.94	3.62%	27.23	4.70%	10.29	1.08%
Terminal lease	25.63	5.48%	34.76	6.00%	9.13	0.52%

Any behavior (except illegal behavior) is no more than two situations: one is “must be”, the other is “can be or not”. General enterprises independently decide the development strategy, there is no “must do” situation. But for airports, both scenarios exist. The airport is a public infrastructure, the airport must provide public services, which is “must for” aviation; the airport has facilities create conditions for market operation, the airport can choose self-operated business, which is “can or not” non-aviation.

The entire business of the airport consists of two aviation and non-aviation sectors. Different sector businesses have different cost characteristics. Aviation and non-aviation costs constitute the structural framework of total airport costs. Aviation is management business, corresponding management cost; non-aviation is operational business, corresponding operating cost^[8,9]. Regional airport air transport volume and passenger throughput are small, the total (aviation) fixed cost is small, so the total cost is greatly affected by the (non-aviation) change costs. (Table 3)

The regional airport should timely adjust the business structure in accordance with the basic idea of “transformation management, separation of main and auxiliary management, fine main business management, and expanding the auxiliary business franchise”. We will promote the transformation of airports from operation to management, implement the separation of aviation and non-aviation, and achieve specialized fine aviation management and professional market operation of non-aviation. Professional operation of non-aviation business is the direction. In recent years, many domestic regional airports are stripping airport public welfare functions and restoring public welfare costs, and actively developing franchising. The transfer of non-aviation to a professional third-party company is determined by the location, scale, conditions of the branch airports and other objective factors. Different from the big cities where hub airports and trunk airports are located, the small and medium-sized cities where regional airports are located in have a low consumption level and small market capacity. With the change of the market, low-cost operation becomes an important option for the strategic

adjustment of the various airlines. For example, at Jingdezhen Airport, Airlines Chang'an Airlines to Xi'an flights Chang'an only retains the unit meals for Xi'an flights, and all other meals were cancelled. The adjustment of catering varieties increases the cost of a single piece and further reduces the profit space. Operating business competition is fierce, only fine care and professional operation, can strive for a small profit space. When the route is small, the ground agency service of the airline is fine; after the route increase is possible, the airline service of the airport agency may increase, but the authorization of the airlines is reduced; however, without opening the route in order to maintain the authorization, it is obviously a short-sighted behavior of sacrificing the essentials. In addition, the management, talent and facilities of the airport are long in aviation service, and the market-oriented operation is short.

In tourist cities, regional tourist airports will adopt paid transfer or exit non-airlines by charter, which will have more room to choose third-party professional companies. Specialized companies entering regional tourist airports can fully tap the airport resource potential, improve the operation quality and commercial value of the airport, and beautify the airport image and environment. The advantages of specialized companies can maximize the value of non-aviation, effectively increase the airport revenue, and also help the airport achieve the goal of reducing cost and increasing efficiency and improve competitiveness.

The exit of regional tourism airport from non-aviation should not be accomplished overnight, a retreat to the end, and the degree of consideration should also consider the transition. First of all, obey the principle that choosing the easy first and then the difficult. Withdraw those of low-profession and easy to transfer; second, share the risk together. A joint venture can be established to operate non-aviation to reduce the business risk of a third-party professional company, and later withdraw from the equity according to the situation; Third, in the face of reality. When airline companies, flights and airlines are fewer, do not rush to withdraw from the more professional airline ground agent services; fourth, do not do "one size fits all", the airport after cost-benefit comparative analysis, believe that some of the non-aviation less investment, good profit return, continue to maintain self-operation is still a kind based on the actual and more reasonable choice.

3.3 Building a Green Airport, and the Implementation of Cost Control Extending to the Front End of Planning, Design and Construction

In January 2010, the Civil Aviation Administration issued the Action Outline for Promoting the Construction of Type Four Airports (2020–2035), which proposed to build green airports, achieve sustainable development, and fully build a safe, efficient, green, intelligent, convenient, harmonious and beautiful airport by 2035. However, at present, in China, that use new technology, new craftwork and the use of new materials, new equipment in the construction of airport to achieve the environmental protection, efficiency, saving "green" goal has not gained high industry cognition. The construction of Airport A faces severe challenges of capital shortage, which coincides with a great opportunity for the World Bank to participate in construction projects in civil aviation. In June 2013, Airport A received a \$50 million loan from the World Bank, becoming the first project in China to receive World Bank loans to build a "green airport". At the same time, Airport A actively respond to the World Bank Suggestions, the green concept into airport planning and construction, construction of "green airport", make the airport construction excavation balance, soil conservation and zero waste, pay attention to environmental friendliness, reduce environmental impact, and make the comprehensive utilization of airport navigation resources, realize energy saving and consumption reduction, save consumptive costs.

The "green airport" of Airport A is reflected by the respect for nature, making full use of natural light (lighting), natural heat (geothermal), natural water (rain) and other good "sources", and strives to reduce the consumption of energy (electricity) and resources (water).

One is to use natural light (lighting), natural heat (geothermal) to reduce power consumption.

Terminal is the largest energy consumption household at the airport (see Table 4), and its energy consumption is generally close to half or even over half of the energy consumption of the total energy consumption of the airport. Reducing energy consumption in the terminal is the key to energy saving and

consumption reduction at the airport, and also the focus of building a “green airport”. According to the Guide for the Energy Efficiency Assessment of Civil Airport Terminal, energy consumption during terminal operation, including heating, refrigeration, ventilation, air conditioning and lighting, etc., to maintain the construction environment of the airport terminal and the energy of various professional systems or equipment in the airport terminal. Air conditioning and lighting systems are also large energy users in the terminal, usually accounting for more than half of the total energy consumption in the terminal. Therefore, the construction of green airport to promote energy conservation and consumption reduction, reduce energy losses, focus on the green terminal air conditioning and lighting system design.

Table 4 Comparison of electricity consumption in various regions of Airport A in 2018.

Aircraft movement area	Water supply station	Complex building of air traffic control	Terminal	Signs platform	Freight warehouse	Main road in airport
69380.7	7941.1	177029.9	759709.9	17456.9	12039.5	27402.9
Sewage Treatment station	Fire complex building	Employee canteen	Comprehensive office building area	Central substation	Substation air conditioning station	Summary of electricity consumption in each
10482.0	91821.9	51124.6	209291.8	85216.4	570952.8	2089760.4

The design of natural lighting and intelligent lighting in the terminal not only highlights the humanistic spirit, but also highlights the green concept. There are three huge patio indoor (see Figure 1), representing Yuqing, Shangqing, Taiqing sceneries, collocation ceiling circular ripple pattern, rainy day foil “new rain”, become a unique highlight of the airport, at the same time glass cylindrical circular patio is make full use of simulation technology, form skylight introduces a lot of natural light, realize natural lighting ventilation. Full natural lighting in the terminal room, so that the general area during the day is basically not open, the use of natural light lighting. On the basis of natural lighting, in order to ensure the key day lighting and night lighting, carefully choose the lamps with intelligent switch mode, convenient to adjust the illumination, the installation of lamps pay attention to the consistency of the light between day and night. In short, the novel natural lighting and intelligent lighting design of the terminal not only strengthen passengers ‘humanistic perception of the airport, but also does not affect passengers’ walking safely indoors, thus improving passengers’ sense of pleasure and gain. As can be seen from Table 4, the power consumption of the airport terminal in 2018 is less than 40% of the total power consumption of the airport, which is lower than the general level, and the energy-saving effect is obvious.

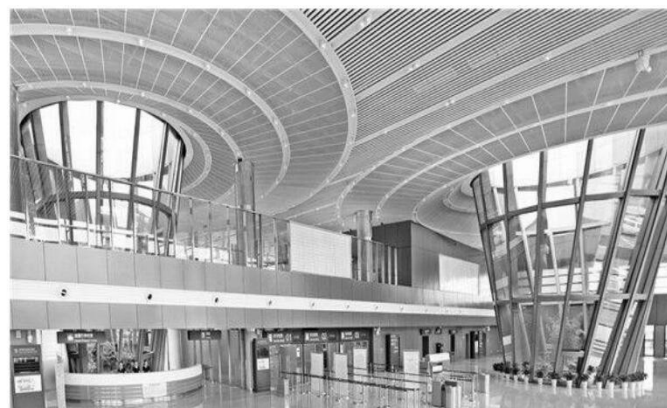


Figure 1 Hall lighting patio on the first floor of the airport terminal (taken from News Network of City A).

Implement a reasonable and necessary technological transformation of energy conservation. The original design apron seat plate is controlled by a switch cabinet for 6 seats, causing idle open waste of energy. In 2019,

the airport controlled its six machine plates and added remote control open and closing devices, which were needed to avoid idle opening; regularly modified the parking lot to fix the switch time and reduce electricity consumption.

In the past three years of navigation, the increase of electricity bills in the whole airport is less than that of passenger throughput, and the electricity consumption per passenger has shown a decreasing trend year by year (see Table 5). The design of Airport A fully takes into account climate characteristics and soil characteristics, and adopts renewable energy ground source heat pump system, heating for the terminal and cooling in winter. Especially in winter, there is no defrosting lowering effect of traditional air cooling heat pump system. According to the airport calculation, compared with the traditional gas boiler energy saving is about 30%.

Table 5 Electricity consumption of Airport A for three years.

	Amount of electricity bill (ten thousand yuan)	Throughput (10,000 people)	Amount consumed per passenger consumption (yuan)
2018	166.08	37.50	4.43
2019	155.53	50.10	3.10
Budget for 2020	180.00	58.70	3.07

Second, use natural water (rainwater) to reduce tap water consumption.

Water is required for greening, car washing, washing the ground and flushing toilets in the building. In particular, the airport greening, natural greening, compound greening and vertical greening, the greening rate of the station area is 41.22%, the flight area is as high as 66.59%, far higher than the national design standard, which requires a long-term continuous large amount of water. These water does not need to meet the water quality of drinking water standards. If all use the urban tap water supply, it is not only a waste of resources, but also a huge expense. The airport design fully takes into account the climate characteristics of abundant rainfall in the southern mountainous area, and arranges the construction of an open-air reservoir with a storage capacity of 1,000 cubic meters to accept and store rainwater. About half of the current non-drinking water supply at the airport comes from natural precipitation and purified rainwater.

Over the past three years of navigation, the water rate of Airport A, like the electricity rate, has increased less than that of passenger throughput, and the water consumption per passenger has also been decreasing year by year (see Table 6).

Table 6 Consumption of water (tap water) over the past three years of airport navigation.

	Amount of electricity bill (ten thousand yuan)	Throughput (10,000 people)	Amount consumed per passenger consumption (yuan)
2018	13.95	37.50	0.37
2019	17.93	50.10	0.36
Budget for 2020	20.00	58.70	0.34

In February 2019, Airport A passed the first certification of EDGE (excellent energy efficient design) green building airport project with its advantages of energy saving, 4 2%, water saving and 38%. In the same year, Airport A's "green airport" construction project was awarded a "very satisfied" rating by the World Bank.

The construction of "green airport" is a clear goal set forward in the *Outline of Action for Civil Aviation Airport IV (2020–2035)* (Civil Aviation Development [2020] No.1). The Outline points out airports of different scale and different stages of development have different airport functional positioning, stage characteristics, scale structure, service demand. It is stressed that we should objectively know of different airport, take measures according to local conditions, field, vary according to time, and adjust dynamically, adhere to the intensive

economical use of resources, ensure low carbon and efficient operation, achieve harmonious and friendly with surrounding environment. Use new technology to make up for shortcomings and achieve low investment and high yield.

Regional tourism airport to implement the whole process of cost control, the purpose is to increase the cost control time span, the focus is to realize the cost control to the front end, in the airport planning, design, construction stage injection cost control concept, according to the requirements of the outline, at the same time according to their own characteristics and reality, promote the construction of tourism characteristics obvious green airport. Considering that the airport construction needs a certain period (generally 3–4 years), the planning and design scale of the airport should also be appropriately advanced. If the planning and construction of the regional tourism airport lags behind the development level of urban tourism development, it will cause the airport overload operation, thus reducing the service quality of the airport, reducing the operation efficiency of the airport and the airport operation cost increasing. Then, the construction of a green airport should be planned and designed scientifically to meet the long-term development requirements of the airport.

The plan must take measures according to local conditions and conditions. Tourism is recognized as a green industry, “low emission, low pollution” is its often characteristic, but also the requirement of its healthy development. Tourism and green accompanied, green is not tourism, tourism must be green. Airport planning should be integrated into urban planning, airport tourism should coordinate urban tourism, and coordinate and organically combine with the development of urban tourism industry.

Different cities have different tourism resources and tourism characteristics, so in-depth research to do and inject the tourism objectives and green concept into the airport planning. In particular, in terms of construction scale and construction standards, we should put the decisive role of the market into action, not only to prevent blindly seeking perfection and high, causing heavy investment liabilities, but also to prevent too conservative thinking, leading to the expansion of the airport, resulting in a substantial increase in cost due to the short construction interval.

Design should take into consideration of improving themselves and the use of nature. To improve itself in the energy saving design, first to consider improving the effect of equipment and facilities, choose to realize intelligent control and other energy saving technologies, optimize the design of equipment and system design, and improve the efficiency of power, air conditioning, lighting and other high-energy consumption equipment and facilities; the use of nature is in energy saving design, and it is also necessary to collect and store natural energy and resources through natural ways. Additional energy consumption equipment can also fully use natural energy and resources, such as lighting design, rain pool design, etc. These two ways are used for the energy saving design of the terminal building, which are also called active energy saving design and passive energy saving design, which are green energy saving technology application methods that need to be taken into account.

Construction should be environment-friendly and resource-saving. Adhere to the green construction symbiotic with nature, through scientific management and technological progress, the implementation of the national “four sections” (land saving, water saving, energy saving, materials saving) and environmental protection requirements, to maximize resources, and also minimize the negative impact of construction on the environment. The reconstruction and expansion should make use of the foundation to prevent separation from reality and another stove, optimization and improvement, so as to avoid major demolition and construction.

Conflict Of Interest

No conflict of interest was reported by the author.

References

1. Xia W. Problems and countermeasures in airport cost management (in Chinese). Accountant 2019; 10: 36–37.

2. Ma X. Problems and countermeasures in airport cost management (in Chinese). *China Civil Aviation* 2001; 10: 50–52.
3. Shang Z. A brief analysis of enterprise cost control at civil airport (in Chinese). *China Business Update* 2011; 10: 82–83.
4. Wang R, Liu Y. New exploration of airport group cost reduction and efficiency increase under the new normal (in Chinese). *Commercial Accounting* 2018; 9: 38–40.
5. Wen J. Strategic incentive mechanism for domestic airport cost control (in Chinese). *Enterprise Reform and Management* 2014; 2: 101–102.
6. Zhao X. Problems and countermeasures of the cost management system of capital airport (in Chinese). *Northern Economy and Trade* 2018; 7: 133–135.
7. Zhao M. A International Airport cost control research based on lean cost management (Master's thesis). Inner Mongolia: Inner Mongolia University of Finance and Economics; 2018.
8. Michael P. Competitive advantage. Chen L (translator). Beijing: China CITIC Press; 2014.
9. Yan J. Construction of enterprise environmental cost control system based on external value chain theory (in Chinese). *Communication of Finance and Accounting* 2013; 14: 101–102.