

Game Theory Analysis of Economics in Civil Aviation Airport Safety Supervision

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Abstract: Today, with the rapid development of science and technology and the development of the economy, the air transport industry in China continues to develop. The number and scale of domestic civil aviation airports are rapidly expanding and aviation activities are becoming more frequent. It not only facilitates people's transportation, but also greatly shortens the distance between people, and shortens the distance between countries. As an important mode of transportation, air transportation has become an important part of people's life. Therefore, the safety of civil aviation has become the focus of everyone's attention. The airport's public safety management is an important part of civil aviation safety management, and it plays an important role in the entire aviation safety management system. In recent years, civil aviation airport security management in China has continued to progress and has made significant achievements. Studies have shown that the incidence of civil aviation transport flight accidents in China has been significantly lower than the world average, but there is still a big gap compared with developed countries. At this stage, China should correctly handle the relationship between the safety supervision of civil aviation airports and the economic benefits of airports, and minimize the risks on the basis of maintaining maximum economic benefits ^[1].

With the development of the world economy, air transportation as an important means of transportation has become an important part of people's lives. The safety of civil aviation has become the focus of attention in the world today. Airport public safety management, as an important part of civil aviation safety management, mainly refers to the front square and surrounding roads of the terminal, the passenger hall, security check-in hall, waiting hall, and related supporting departments and facilities in the terminal. The safety management of public areas plays an extremely important role in the entire aviation safety management system. The analysis of civil aviation airport safety supervision and economic benefits can help civil aviation airports in China to formulate practical plans to deal with possible problems at the airport and minimize airport safety accidents.

1. Analysis of the Current Situation of Safety Supervision in Civil Aviation Airports

Airports are the main public places for people to enter and exit. The general population of these places is relatively concentrated and the population flow is very large. For these special reasons, the safety management of airports is particularly important. Firstly, the airport security management is unexpected and uncertain, and the staff can not determine when and where the unexpected events will occur, nor in what form they will occur, which makes the airport security management more difficult. According to the previous investigation and analysis, the causes of civil aviation public emergencies are various, including human and natural reasons, many of which are unpredictable in advance and have certain complexity. Once a public event occurs, it will bring immeasurable disaster and loss to the airport, and even cause social and psychological impact, seriously hindering social harmony and progress. So safety is not only the lifeline of civil aviation, but also the top priority of all work ^[2].

Fire safety in civil aviation airport is an important part of airport public safety, but also a very important part of building a harmonious civil aviation airport. Fire safety production can protect people's lives and property safety, which is the starting point and foothold of fire work. For example,

Pudong International Airport in China has been concerned about the development of airport fire protection since its establishment. Especially in recent years, with the rapid economic development in China, the comprehensive quality of airport fire fighters has been continuously improved, and the airport fire protection equipment has been constantly updated. In addition to the fire brigade, the airport is equipped with medical emergency teams to cope with the emergencies at the airport. The combination of fire fighting and medical treatment can minimize casualties and economic losses. Some airports have even developed emergency medical flow charts. Fire rescue teams are on standby at any time. Once an accident occurs, they can listen to the arrangements of the airport command center, quickly mobilize vehicle and human support, and follow the command center's operational instructions and route. In this way, the operation can be carried out according to the process in the event of an emergency, without disorder, so that the security of the airport is also within the controllable range.

In China, most of the civil aviation airports belong to small and medium-sized airports. Generally, the operation of large airports is better. Some small and medium-sized airports have weak self-development capacity, and some infrastructure needs to be improved. Since accession of China to the World Trade Organization, the safety management level of civil aviation airports in China has kept pace with international standards and continuously strengthened their own construction. In some airports, the problems of airport management mode and economic benefits are becoming more and more obvious. There is no doubt that airport safety management is the premise and guarantee of airport economic benefits. Civil aviation management in China has also formed a set of safety management model with Chinese characteristics. China has been practicing the principle of “safety first and prevention first” to ensure the stable development of civil aviation airports in China ^[3].

2. Current Situation of Economic Management of Civil Aviation Airports

At present, current civil aviation airport in China is one of the countries with the lowest investment profit rate. According to relevant data, the average debt ratio of most civil aviation airports in China is relatively high. The economic benefits of some small and medium-sized airports cannot meet the daily expenses of the airport, and they need to rely on government subsidies to operate normally. At present, the current status of economic management of civil aviation airports in China mainly has the following aspects:

2.1. The Use Rate of Funds Is not High.

After local reforms, most of the civil aviation airports are mainly operated in the form of branches or multi-level legal persons. Due to the large number of airport management bases, the management of funds is relatively decentralized, the situation that internal units occupy funds is widespread. Under this circumstance, there have been problems such as slow airport capital turnover and inefficient use. For example, some departments have a large amount of funds idle and some departments have a shortage of funds. The imbalance in the use of funds within the airport will not guarantee the normal operation of the airport and will not bring economic benefits to the airport.

2.2. Airport Cost Accounting is not Detailed Enough.

The normal operation of an airport requires countless departments to play a role together. At present, the cost accounting of China Airport Group is not detailed enough to provide effective information for management, and it still uses thick-line management. First of all, China Airport Group does not strictly distinguish between aeronautical and non-aeronautical businesses, and does not distinguish between takeoff and landing, business and advertising. For aeronautical services, costs and revenues can be refined to different airlines and different models, and costs and revenues can be divided according to different time and place ^[4].

2.3. It is Difficult to Implement Comprehensive Budget Management at Airports.

The internal property rights relationship of some airport groups is not clear enough, and there is no corresponding internal supervision and control. These groups tend to focus only on expanding their business models and neglecting to improve the overall economic benefits. There are cases of chaotic business management and complex internal relations, which makes it impossible to establish a comprehensive budget management system for airports and brings great risks and difficulties to the financial management of the airport.

3. Strengthening the Game Theory of Economics in Security Supervision of Civil Aviation Airport

Airport is an important part of civil aviation transport industry in China, and the safe production of airports is particularly important for economic development in China. If there is a safety accident at the airport, it will have a huge impact on the airport and bring direct or indirect economic losses to the airport. For example, the "Yichun air crash" in earlier years exposed the problems of insufficient investment in safety, inadequate hardware and software facilities to meet the national standards of Yichun Airport, which made the economic benefits of the airport, and even the entire civil aviation industry significantly decline, and the whole industry has been stagnant in a short period of time. Countless cases are telling us that good safety in production can bring huge economic benefits to the airport. Although it can not be directly reflected in the quality and quantity of products as ordinary investment, it will be reflected in the long-term development of the airport^[5].

If an airport wants to achieve long-term development, it is necessary to correctly handle the relationship between safety in production and economic development, and to ensure the balance between them. If the safety investment is too large, it will increase the burden of enterprises and reduce the economic benefits of enterprises, and the balance will also be inclined; if too much attention is paid to economic benefits and safety issues are neglected, even if the enterprise gains economic benefits, but it is only temporary. Because safety production is the foundation of enterprise development. If production cannot guarantee security, then this enterprise will not be able to operate.

4. Conclusion

How to balance the relationship between safe production and economic benefits is the primary problem that needs to be considered in the development of civil aviation airports. How to achieve good and stable in this industry and achieve a win-win situation of safe production and economic benefits is the management of every enterprise should be long-term thinking about. On one hand, civil aviation enterprises in China can learn from the safety supervision and financial management experience of foreign advanced airlines to standardize management methods in China, and abandon old business ideas and management concepts. On the other hand, civil aviation enterprises in China should strengthen the safety management of their staff, regularly hold safety management education, enhance the safety awareness of staff, and make them actively respond to safety incidents. In addition, we must strengthen vocational training for financial management personnel. We can regularly invite excellent employees to share their work experience to purify the thinking of staff and promote the development of civil aviation airports.

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