

Research Article

Research on Development Strategy of Henan Aviation Economy under the Background of Regional Economy

Guo Yu , Aimin Hao, and Chunling Liu

School of Economics, Zhengzhou University of Aeronautics, Zhengzhou, China

Correspondence should be addressed to Guo Yu; gyu@zua.edu.cn

Received 9 May 2022; Revised 13 June 2022; Accepted 17 June 2022; Published 11 July 2022

Academic Editor: Kuruva Lakshmana

Copyright © 2022 Guo Yu et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

There is no doubt that economic globalization creates a golden opportunity for the development of aviation economy in the world; meanwhile, the world economy has entered the aviation century of the 21st century from the navigation century of the 20th century. As a new type of regional economy, the aviation economy is attracting more and more attention from all sectors of society and becoming a significant field for many countries and regions in the world. As the city that has been strategically promoted as the first pilot zone for airport economy development in China (Liang, 2013), Zhengzhou is endowed with remarkable geographic advantage. Coupled with policy advantages from Chinese government, its development is crucial to the development of regional economy in the entire province; therefore, this research paper studied its advantages, disadvantages, opportunities, and threats for developing aviation economy and analyzed its possibility for developing a well-established aviation industry. Secondly, the current condition of airport logistics in Henan province was analyzed, especially the current situation and noticeable problems. Thirdly, the gray analysis was carried out to analyze the relationship between aviation industry and economy development in Henan. Finally, the according development strategy and suggestions for developing aviation economy were put forward, such as innovating industrial development models, exploring new modes of financing, establishing a sound transportation system and airport supporting facilities, and improving the talent introduction program in airport industry. Overall, this paper researched the aviation economy in Henan province from the perspective of regional economy development, analyzed the current issues occurred in the aviation economy development process, and offered suggestions accordingly.

1. Introduction

With the development of globalization, aviation economy has been becoming the driving force for economic development. As Zhengzhou is located in the central part of China, its aviation economy not only drives economy development in Henan province but also benefits the overall development in the central region. The recent years witnessed the increasingly rapid development of aviation economy in Zhengzhou. Zhengzhou aviation comprehensive economic pilot zone is quite significant for optimizing freight transportation layout in our nation, promoting economy development and expanding opening scale in the central and western region [1]. Under this background, this paper intends to study the development of aviation economy in Zhengzhou by carrying

out the SWOT analysis so that a more comprehensive understanding can be established; basing on this, gray correlation research was carried out to study the correction between airport industry and development of each industry in Henan province, thus making suggestions accordingly so that airport economy development in Henan can be strategically adjusted for further development.

The structure of this paper is as follows: the first part is introduction; the second part is a brief introduction on literature review. The third part is introduction on research method used in the paper. The fourth part is the SWOT analysis of the Henan aviation industry. The fifth part introduces gray correlation analysis to analyze the correlation between aviation industry and regional economy. The final part is the conclusion and suggestions.

2. Literature Review

It is well known that transportation is significant for the regional economy. There are a few relevant researches referred in this paper. Button et al. studied the role of airports in economic development. Forsyth et al. state that [2] aviation industry is significant for development of regional economy as it has become the growth pole in regional economy. Furthermore, there are relevant studies on the aviation industry development in China; for instance, it is proved that logistic industry and air transportation in aviation hub have marginal effect on the region economy [3]. As to importance of aviation industry, Quan and Zheng think that airport is a new core joint in the economy and a driving force in the development of regional economy. Regarding the topic on the influence of aviation industry, Zhou studied the effect of aviation logistics on economy in Shenzhen, and as to the case of Zhengzhou, Shang and Yin's research on the development strategy of Zhengzhou was referred to carry out the SWOT analysis. According to Huang, the effects of aviation logistics to regional economy are mainly reflected in secondary and tertiary industry [4]. The abovementioned literature is focused more on the qualitative analysis, but empirical research and quantitative analysis are still few. Based on the above research, this paper will sort out the effects of aviation industry on the development of regional economy.

3. Research Method

In the research process, only limited statistics about Zhengzhou airport harbor was found; moreover, the gray value of the collected data is relatively large. After comparing data in multiple resources, multiple human error and data difference were found in the gathered statistics, so mathematical statistics method cannot be used for related data, as an alternative, multifactor gray correlation analysis method was used to for data analysis. Meanwhile, SWOT analysis method was used to study the strength, weakness, opportunities, and threats of Zhengzhou when developing airport harbor economy, and based on SWOT analysis, the according suggestions were made to help facilitate aviation economy in Zhengzhou.

4. SWOT Analysis on Zhengzhou Aviation Economy Development

4.1. The Current Development Situation of Henan Aviation Economy. As the vanguard of the airport's economic development, Zhengzhou airport is closely integrated with the national "Belt and Road" initiative and became the pilot area of the "Air Silk Road" and an important port for opening up in Henan province. At present, the construction of the modern comprehensive transport system in the airport area has been completed, so far its flight course covers 23 countries and over 100 cities. What is more, 34 transportation courses for cargo only were established, integrating with bullet train, intercity railway, and expressway. The newly established JiXi express program with the traffic mileage of 418 kilometers

forms an efficient transportation net in the airport region and furthermore improved transportation capacity of the region [5]. In the year of 2019, the passenger transportation volume of the airport reached 29.13 million person-times, and the cargo transportation volume reached 522,000 tons. According to the plan, in the year of 2040, capacity of passenger traffic in Zhengzhou airport will reach 70 million person-times; meanwhile, cargo transportation volume will reach 5 million tons, and the role Zhengzhou airport as an integrated transportation hub is becoming increasingly prominent. According to a series of planning, such as Master plan of Zhengzhou Airport and Master plan of Zhengzhou Aviation City, the layout planning of airport area is expanding gradually, and the second phase in airport construction is carrying out rapidly. In the first half of 2020, the cargo traffic volume reached 0.2551 million tons, gaining a year-on-year growth of 21.45%. This kind of growth rate won the first place among major airports in the nation. According to the detailed analysis, the international cargo traffic and cargo traffic volume gained a year-on-year growth rate of 40%, the passenger throughput gained reached 8.011 million person-times, ranking the 11th place in the nation, and the growth rate won the 4th place among major airports in the nation. Even during the COVID-19 pandemic, the amount of average daily flights and passengers in 2020 has already recovered over 80% of that of last year, showing signs of rapid recovery.

The aviation industry is developing in many fields. For instance, the electronic information industry, as the leading industry of the aviation economy of Zhengzhou airport, achieved an increase in output value of 16.39 billion yuan in 2012, accounting for 57.8% of the total increase in output value of the electronic information industry in Henan province. At present, the biomedical industry project with a total area of 200,000 square meters in Zhengzhou airport has also been basically completed. The biomedical industry of Zhengzhou airport has successfully obtained technical and financial support from nearly 100 enterprises and also has a number of key development and research projects lead by experts and academicians. Zhengzhou airport, as the hub of traffic and commerce around the world, also gathered all kinds of high-end manufacturing industries that are developing rapidly. In addition, it has signed a number of high-end instrument manufacturing projects worth hundreds of millions; those projects involve many industries and fields such as medical treatment and computerized numerical control.

4.2. SWOT Analysis on Zhengzhou Aviation Economy Development. SWOT analysis for Zhengzhou aviation economy development will be carried out to study the strength, disadvantages, opportunities, and threats for the development of aviation industry in Henan.

4.2.1. The Advantages of Zhengzhou Airport Economic Development. The strength of Zhengzhou city itself is mainly reflected in its geographical advantages, policy preferences, and human resource advantage. Zhengzhou is located in the geographical center of major economic zones such as

TABLE 1

Industry	The number of people employed	Operation revenue (thousand yuan)	Total assets (thousand yuan)	The number of companies
Aviation logistic industry	2249	4,533,917	1,8718,168	38
High-end manufacturing industry	284 806	211,311,161	154,855,908	48
Modern service industry	678	900,707	1,304,450	43

Source: Henan Statistics Bureau.

Beijing-Tianjin-Hebei, Changwangjiao, Chengdu-Chongqing, and Zhulanjiao, which makes it the transformation hub connecting the northern part and southern part and eastern and western part of China; meanwhile, Zhengzhou airport also acts as an internationally significant business and transportation hub, and its aviation industry is currently becoming increasingly well-established, which plays an significant role in connecting all flight courses all across the world. Besides its geographical advantages, Zhengzhou is the most populous province in China, and at the end of 2014, its population amount exceeded 106.6 million; therefore, Zhengzhou as a densely populated province which exported the most labor force in China, as its economy keeps developing, the per capita disposable income also keeps increasing, and as a result, travelling by air will surely become more people's first choice when they are coming in or out of Henan, thus promoting aviation economy development in Henan. Another significant factor is the support from government. The development of aviation economy of Zhengzhou airport was fully supported by the central government of Henan provincial government, and it has been attracting people's attention nationwide; for example, the State Council approved the Development Plan of Zhengzhou Airport Economic Comprehensive Experimental Zone (2013-2015), which made Zhengzhou Airport Zone the first airport economic development pilot zone at the strategical level in the nation; thus, government policy has been highly in favor of the aviation economy development in Zhengzhou. To summarize, the geographical advantage and political preferences of Zhengzhou lay a solid foundation for the development of aviation economy in Zhengzhou, which would help establish the aviation industry system in the Zhengzhou airport and explore the potential of aviation industry development in Zhengzhou.

4.2.2. Analysis of Disadvantages of Airport Economic Development in Henan Province. To begin with, the number of airports in Henan province is not large. Airport is the foundation for developing aviation economy; however, there are only limited number of airports in Henan province; what is worse, the layout arrange is not reasonable, density is quite low, compared with other province, the number of airports should be increased, and layout arrange should be rationalized for the development of aviation industry. Secondly, industry around airport industry needs to be improved, related industrial clusters are significant for the development of aviation economy, even though some industry already clustered around the airport, but there is lack of reasonable industry cluster and industry chain. Lastly, the industry structure is a disadvantage for developing aviation industry,

and the heavy and chemical industry accounts for large proportion of its industry, but high-end manufacturing and service industry only make up a small proportion; however, the development of aviation economy highly relies on the aviation transportation, and aviation transportation is characterized by its small size and light weight; therefore, the percentage of heavy chemical industry does not benefit aviation industry development, and small proportion of high-end manufacturing hinders the development of aviation industry in certain level. In this respect, even though Zhengzhou airport in the process of inland is opening up, it is located in the central of China, instead of border or coast; meanwhile, its comprehensive aviation industry pilot zone is established relatively too late compared with other inland city. Its industry foundation is significantly weak when compared with other coast cities, and its economy scale and economic power cannot match its counterparts located on the eastern coastal areas (Table 1).

4.2.3. Analysis of Opportunities of Airport Economic Development in Henan Province. The government of Henan province attaches great value to the aviation economy development in Henan, in December, 2015, the seminar themed "one belt, one road and the development of aviation economy," during the seminar, and all experts in this field agreed that airport economic will take huge effects on the economic structure and industry layout in Henan province; therefore, all aviation economy-related planning, such as transportation, businesses coordination, and investment introduction will be organized under the direct control of government; meanwhile, all the related policy preferences such as lower price of the land, tax reduction, and support for industry will benefit its aviation economy development.

The urban cluster formed in the central China region could further drive the development of aviation industry in Henan. The central city cluster development is one of the key initiatives implemented by Henan government. Central city cluster includes several city in Henan province, such as Zhengzhou, Luoyang, Jiyuan, Jiaozuo, Xinxiang, Kaifeng, Xuchang, and Pingdingshan. The central city cluster located in Henan is one of the strategically key area for Henan's economic development; what is more, the city cluster is an unprecedented opportunities for Henan to develop aviation hub. The city cluster will greatly increase the passenger and cargo transportation volume for aviation industry and thus driving the development of aviation industry; meanwhile, the transportation interconnectivity within the city cluster would benefit aviation development in Henan. Furthermore, the industries within the city cluster could complete with each other and complete the industry chain in

TABLE 2: The traffic volume is Zhengzhou air harbor.

Year	Cargo throughput capacity (ten thousand ton)	Passenger throughput capacity (ten thousand person-times)	Export volume (1000 billion dollars)	Foreign trade turnover volume (1000 billion dollars)	Air passenger turnover volume (10 thousand person-times)	Air freight turnover volume (ton kilometer)
2009	8.58	734	0.1	0.1	466565	5034
2010	10.28	870	0.1	0.1	497747	5641
2011	15.2	1015	49.7	89	532996	5744
2012	25.5	1167	151.4	279.8	547376	5477
2013	25.6	1314.0	194.0	348.8	577414	5645
2014	37.0	1580.5	204.2	379.2	609100	5819
2015	40.3	1729.7	302.8	490	649808	5999
2016	45.7	2076.3	317	550.3	667340	6183
2017	50.5	2596.1	345.57	596.6	714599	6374
2018	51.7	2964.9	386	615.1	733878	6570
2019	52.4	32573	431.16	643.17	785850	6772

TABLE 3: Economic development status of Henan province in the recent years.

Year	Gross domestic product in Henan province (1000 billion yuan)	The secondary industry (1000 billion yuan)	The tertiary industry (1000 billion yuan)
2009	19547.6	10816.54	6065.40
2010	23157.64	12930.83	7099.67
2011	27007.46	14978.99	8679.22
2012	29681.79	16063.24	10041.40
2013	32278.04	16942.15	11508.69
2014	35026.99	18041.82	12996.95
2015	37084.20	18156.04	14912.95
2016	40249.23	19275.82	16909.76
2017	44552.83	21105.52	19308.02
2018	48055.86	22034.83	21731.65
2019	54259.20	23605.79	26018.01

the aviation hub; therefore, the city cluster will keep driving the long-term development of aviation industry in Henan.

Changes in industrial development would bring opportunities for aviation industry development in Zhengzhou. As international industry continues to shift and industrial structure continues to improve, more and more opportunities are being generated for Henan; meanwhile, with the industrial structure upgrading and optimizing in the eastern China, some of industries located in the eastern China begin to relocate to central region; what is more, some of foreign investments start to shift from eastern region to cities in western and central region and national level development zone, which offers aviation industry in Henan an unprecedented opportunity. As a driving force in central region, the aviation hub in Zhengzhou can integrate industry shift from international community and eastern region, with adequate advantages such as interconnectivity from aviation network, convenient transportation means, international standard aviation hub with well-established parks, and great environment for investment from home and abroad. There-

fore, the aviation industry will surely integrate the new high-tech industries and modern service industry shifted to the western region, thus driving regional economy via aviation industry.

4.2.4. The Threats during Aviation Industry Development Process in Henan. The majority of industry in Henan province is heavy industry that consumes natural resources and energy, so there is limited air transportation need for high-end aviation industry to develop. In addition, its economic influence is yet to be expanded, and in 2013, the import and export total amount of six provinces located in the central China reached 219.669 billion US dollars, resulting an average growth rate of 12.6%. Although the increase rate of import and export amount is 5% higher than that of entire nation, it only accounted for 5.28% of the total import and export amount; therefore, the proportion of Henan is relatively low when compared with other province located in the central China.

Secondly, the infrastructure in Henan province is less developed, and the competition in the central region is getting increasingly fierce. The logistic development history in both home and abroad shows that the transportation hub which developed first has advantages over the airport hub that started latter. For instance, since Shanghai Pudong International Airport became the hub for aviation logistics, the surrounding city lost its chance to become an aviation logistic hub. Meanwhile, in the recent year, all central cities such as Wuhan, Xi'an, Chengdu, Changsha, and Chongqing all attached strategical importance to aviation logistics and were fully promoting the construction of aviation hub; due to the development of aviation industry in Xi'an and surrounding cities, the amount of air passenger and cargo is relatively small; what is more, surrounding cities, such as Wuhan, Changsha, and Xi'an, are speeding up its construction for second phase and improving surrounding infrastructure in the aviation logistic park.

Thirdly, airport transportation capacity is inadequate, and its interconnection is weak. Even though the route and transportation capacity of airline company in Zhengzhou

TABLE 4: Gray comprehensive correlation result.

Evaluation indicator	Total gross domestic product in Henan province	The secondary industry	The tertiary industry
Cargo throughout capacity	0.64	0.61	0.78
Passenger throughout capacity	0.68	0.63	0.89
Export volume	0.54	0.51	0.64
Foreign trade volume	0.56	0.56	0.62
Air passenger turnover volume	0.79	0.89	0.65
Air freight turnover volume	0.70	0.79	0.60

has improved greatly, it is not enough to attract more transportation volume. Meanwhile, the number of airline destination and flight does not meet the basic requirement of developing export-oriented economy in Henan. According to current data, the domestic flight accounts for 95% of total flights, international flights only reached a few Asia cities, such as Hong Kong, Macau, and Seoul. The majority of international flight courses needed to be transferred via other airports located in Beijing, Shanghai, and Guangzhou. Currently, there are 19 international airline routes for cargo transportation, and the weekly flight volume reached 78, but according to data in in Shanghai Pudong International Airport, there are 112 international airline routes for cargo transportation and so there is a huge gap between Zhengzhou Xinzheng International Airport and Shanghai Pudong International Airport.

Fourthly, there is lack of base company, so there is limited support for Zhengzhou Xinzheng International Airport. Usually, base company has plenty of networks and resources, so it can offer airport business such as airline network, client with cargo transportation need. Generally speaking, base company is the foundation for building an aviation hub. But there is only one base company for Zhengzhou Xinzheng International Airport, which results to limited sources and lack of support. Moreover, there is lack of shared information and close cooperation between each playing factors in the aviation hub. Due to the fact that one-stop custom clearance mechanism is not mature in the airport, so there is no seamless connection between comprehensive bonded zone and port, which lead to low efficiency and low quality. Even though all separate factors in the Zhengzhou aviation logistic process such as airlines, freight agency, airport, and customs are fairly mature after years of development, there is no standard integration between all those factors, and each playing factor remains an isolated island. What is more, the development of aviation logistic industry is facing increasing challenge from high-speed train system. The transportation network formed by high-speed trains is expanding quicker than ever due to the development in high-speed train-related technologies. In the year of 2012, a well-established high-speed train network was formed, and as a result, high-speed train became more advantageous in the transportation market. For example, the transportation volume (both passenger transportation volume and cargo transportation volume) of the airline was decreased by 40% after the Wuhan-Guangzhou high-speed railway was opened. In the year of 2013, the same-day delivery became possible for intercity high-speed

trains, and intercity high-speed trains are more cost efficient, thus more advantageous than airline transportation, which might lead to the decrease in the aviation transportation volume.

Lastly, there is lack of qualified personnel in the aviation industry in Henan. The development of aviation industry requires plenty of talented experts. Even though Henan province has a huge population base, so far, its population did not meet the talent demand of aviation industry, because there are no enough innovative, technical talents. As aviation industry continues to develop, there will be a huge demand for professionals in the aviation industry such as pilot, maintenance, and air traffic.

5. Gray Correlation Analysis

Table 2 lists the relevant factors in the airport logistic industry ranging from the year of 2009 to year of 2019. Table 3 summarizes the total gross domestic product in Henan province and the gross domestic product of each industry.

Gray comprehensive correlation value between each industry and each logistic factor was calculated using the wide gray relational analysis method, gray correlation, and comprehensive gray correlation. Calculation result is shown in the below table [4].

6. Conclusion and Discussion

6.1. Conclusion. The gray correlation value result in Table 4 shows that all evaluation indicators in Zhengzhou airport harbor logistic industry have a correlation value of above 0.5, which proves that the development of airport logistics industry is closely related to the gross domestic product and airport logistic industry plays a significant role in the regional economic envelopment of Henan. The findings coincide with the research done by Huang [4], which proves that the regional economy development in Zhengzhou was greatly promoted by aviation industry; however, due to the limited statistics and possible human error in the collected data, the calculation results might be slightly impacted, but the general influence is correct. The effects of aviation industry on regional economy development can be summarized as below. To begin with, the remarkable development in aviation industry will draw attention of from high-tech enterprises and attract them to locate in Henan province. Even though the development of high-tech enterprises in Henan is limited, the establishment of aviation hub will change this situation. The aviation hub will bring in airplane

manufacturing and maintenance company from home and abroad, which could attract; meanwhile, aviation material manufacturing and maintaining base will be established in Henan; other industries such as international electronic information industry, the bioengineering, and pharmaceutical industry will be established in Henan as well. Secondly, aviation industry will bring new job opportunities and boost employment; Zhengzhou is one of the most populous provinces in China; according to statistics, every year, there are 16 million people seek job opportunities out of Henan province; after aviation industry is established, there will be more job opportunities and more workforce could be retained in the Henan province, instead of flowing to other bigger cities such as Shanghai, Shenzhen, and Guangzhou. Generally speaking, a new aviation project is able to generate economic benefits 80 times than its original investment after 10 years, and the job opportunities it bring are about 12 times more than the original data. According to actual situation in China, an aviation project could directly promote the development of over 600 companies and indirectly drive the development of 2500 companies. It is estimated that over 800 position will be created with the increase of every 100,000 tons of cargo transportation in the airport, and over 1500 job opportunities will be increased with the increase of one international direct flight. According to Wang Song Su, the director of Henan government development research center, Foxconn alone could bring an increase of 116 billion yuan in the income of worker. Lastly, the development in aviation industry will boost the development of tourism. The convenient transportation means will attract more and more tourist to Henan province, resulting a boom in the tourism; moreover, other surround industries will be promoted as well, such as the economy in the scenic spots, hotel industry, and transportation industry.

6.2. Discussion. Based on abovementioned SWOT analysis and gray correlation analysis, it is clear that the development in aviation logistic industry is highly correlated with the development in secondary and tertiary industry, and tertiary industry has more correlation with the development in aviation logistics industry when compared with the development in secondary industry, which completely matches the actual situation in the tertiary industry. As the aviation industry continues to develop, Henan is adjusting its industry structure as well. After finishing SWOT analysis and gray correlation analysis, below suggestions were made to further promote the development of aviation industry in Henan.

To begin with, more efforts should be made to expand the market for both airline cargo transportation and airline passenger transportation. More passenger airline company and cargo company should be permitted to set up their branches in Henan. Meanwhile, timely support should be provided for flight and airlines to decrease airplane on-ground time and improve airplane use efficiency, because the volume of passenger and cargo be effectively increased when transportation efficiency is improved; as the volume of both passenger and cargo increased, the general industry structure will be optimized, and regional economy will be further developed as well.

Secondly, the quality of air transportation should be improved to promote the further development of aviation economy. Due to the limited airspace and poor management, airline delay issues in Henan are also remarkable, which has serious impacts on air transportation volume and quality; therefore, it is suggested that the Henan province should take necessary measures to optimize the operation in the related process and decrease possible delays; only in this way, air transportation volume could be increased.

Thirdly, the need for air transportation from commodity directly drives air freight transportation volume, so in order to further develop cargo air transportation in Zhengzhou, air transportation needs for commodities from other cities and provinces should be expanded as well, instead of just transporting commodity produced in Zhengzhou. Moreover, multiple transportation means and transportation connection should be developed as well, such as high-speed train; therefore, it is necessary for aviation hub to be constructed comprehensively and cooperate together for the development of aviation industry; not only this, in order to develop high-level cargo transportation, the leading companies in this field should be developed especially; meanwhile, government should offer enough support to those corporates so that they contribute to establishing an improved modern transportation system.

Fourthly, the industrial chain needs to be completed by bringing more players in the same industry. The method of inviting companies that are on the industrial supply can bring in the corporate or product that are on the same supply chain and enhance the competitiveness of entire region; the purpose of this method is to form a complete supply chain and industrial cluster in this region, thus forming scale economy and enhancing its competitiveness. It is recommended that Zhengzhou should adopt the method of inviting companies that are on the same industrial supply chain to gain rapid development and establish an industrial cluster to form great competitiveness.

Furthermore, more efforts should be made to expand key industries to develop high-level aviation economy; after analysis, it is important for government to prioritize development in aviation manufacturing industry, air transportation service industry, aviation logistic industry, high-end manufacturing industry, international conference and exhibit industry, and recreation industry; meanwhile, the comprehensive planning strategy has to be made to create new structure for aviation industry; in fact, only after the comprehensive planning strategy was made can new structure for aviation industry be created. The general structure of aviation industry in Henan can be designed around following strategies. The first strategy is point strategy, that is, establish aviation service development industry and aviation industry development mechanism with the purpose of developing and serving airport. The second is creating economy zone through the main road and streets. The third is combining with surrounding cities to form a resource zone with airport at the center.

Lastly, modern logistic industry should be enhanced especially among other key industries. The development of modern logistic industry plays a significant part in every

aviation economy; meanwhile, both economy in the aviation hub and regional economy would be enhanced. As the development of international trade, the international transportation volume is increased greatly as well. From the perspective of aviation industry in Zhengzhou itself, Zhengzhou has great geographical advantages and convenient high-speed train transportation, which would greatly promote the development of modern logistic industry; therefore, Zhengzhou should enhance the development of modern logistic industry, especially international aviation industry [6]. Major logistic company could be introduced to locate in the Henan province; on the one hand, this could drive the development of logistic industry in this region; on the other hand, this initiative could meet the material need from other surrounding industries.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors do not have any possible conflicts of interest.

Acknowledgments

The work was supported by the Philosophy of the Social Sciences Innovation Team Support Program for Henan Province College (2018-CXTD-06); Major Project of Applied Research in Philosophy of the Social Sciences in Higher Education Institutions of Henan Province (2020-YYZD-14); 2021 Henan Province Key R&D and Promotion Special Project (soft scientific research), Project Number: 212400410078; and Final Research Findings of Henan Province Philosophy and Social Science Planning Project, Project Number: 2020BJJ058.

References

- [1] W. Shang, "Research on the development strategy of high-end manufacturing industry, taking Zhengzhou aviation hub as an example," *Times Finance*, vol. 11, pp. 80-81, 2014.
- [2] P. Forsyth, D. W. Gillen, A. Knorr, O. G. Mayer, and D. Starkie, *The Economic Regulation of Airport*, Ashgate Publishing Company, United Kingdom, 2004.
- [3] P. Zhou, "The effect of aviation logistics on economy in Shenzhen, and Huizhou," *Economic Geography*, vol. 6, pp. 946-951, 2009.
- [4] H. Jingjing, "Analysis on the effect of aviation logistics to regional economy," vol. 2, pp. 80-81, 2021.
- [5] L. Pengde, "Zhengzhou aviation comprehensive economic pilot zone was approved as the first one in China, People's Government of China," 2013, http://www.gov.cn/jrzg/2013-03/11/content_2351390.htm.
- [6] M. Yin, "The strategies for rapid development of logistics in Zhengzhou aviation hub," *Economics and Management Studies*, vol. 6, pp. 75-76, 2014.