Analysis of Economic Development in Binzhou Economic and Technological Development Zone under the New Normality and Prospects during the "13th Five-Year Plan" Period

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Abstract Firstly, the current situation of economic growth in Binzhou economic and technological development zone was analyzed firstly, and then existing problems were pointed out. What's more, the goals and strategic orientation of economic development in the zone during the "13th Five-Year Plan" period were determined, and several countermeasures and proposals were put forward.

Key words Binzhou economic and technological development zone; Assessment of economic development; Industrial structure; Development orientation

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Located in the new urban district of Binzhou City, Shandong Province, Binzhou economic and technological development zone is situated at the convergence of "two zones and two circles" (the efficient ecological economic zone in the Yellow River Delta, the blue economic zone in Shandong Peninsula, the economic circle around the Bohai Sea, and the urban agglomeration economic circle around the provincial capital Jinan). The zone is 189.2 km^2 in area and was upgraded to an economic and technological development zone in November 2013. In recent years, the transformation of economic development mode and adjustment of economic structure have been accelerated to promote the harmonious development of the three main industries in Binzhou economic and technological development zone, while its comprehensive strength and external influence have been heightened obviously. However, in comparison with other national development zones, it has some shortcomings such as small scale and lacking innovation ability. Therefore, how to evaluate economic situation according to local conditions and predict its development trend scientifically and rationally is a major issue that needs to be solved during the process of economic construction in Binzhou economic and technological development zone[1-2].

1 Current situation of economic development

1.1 Continualenhancement of comprehensive strength During the "12th Five-Year Plan" period, regional GDP in Binzhou economic and technological development zone increased from 7.167 billion to 15.006 billion yuan, and annual average growth rate was 19.38%, which was higher than the average of Binzhou City and Shandong Province. Per capita regional GDP exceeded 0.12 million yuan, higher than the average of Binzhou City and Shandong Province. Gross industrial output value exceeded 20 billion and 30 billion yuan continuously, and the proportion of economic aggregate in the zone in economic aggregate of Binzhou City rose from 3.94% to 6.37%. Local financial revenue in the zone increased from 0.575 billion to 1.070 billion yuan, and annual average growth rate was 18.76%. Fixed-asset investment rose from 5.608 billion yuan to 14.017 billion yuan, and annual average growth rate reached 20.11%. Annual average growth rate of regional GDP, gross industrial output value, industrial added value, financial revenue or total volume of foreign trade was higher than the average of Binzhou City. Rapid development, high output value and large proportion of high and new technology industries have become the important supporting point of economic growth in the zone.

1.2 Gradual optimization of industrial structure With the formation of a leading industry, industrial structure has been optimized in Binzhou economic and technological development zone. From 2011 to 2015, the proportion of primary industry in GDP continued to decrease from 7.3% to 4.1%; the proportion of secondary industry in GDP declined from 60.9% to 59.5%; the proportion of tertiary industry in GDP increased from 31.8% to 36.4%, showing that tertiary industry plays an obvious leading role in economic growth. The proportion of the three main industries was changed from 7.3:60.9:31.8 to 4.1:59.5:36.4 from 2011 to 2015.

Meanwhile, special tourism has developed rapidly. For instance, Qinhuanghe Tourism Scenic Area has been upgraded to a national AAAA scenic spot, and a series of tourism activi-

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ties such as sightseeing and leisure, wedding photography, fishing and entertainment have been developed, so it has become an ecological leisure tourist area. Rural tourism development in Shiziliu Village have been conducted orderly, and characteristic catering, water tourism and rural vacationing have been developed, so it has become a new highlight of rural tourism in Binzhou City. Finance plays a supporting role during the process of industrial development in the zone, and Qishang Bank, Huaxia Bank, *etc.* Have been built in the zone, thereby provide enough financial support for the optimization and adjustment of industrial structure in future.

Table 1 Changes of main economic indicators in Binzhou economic and technological development zone from 2011 to 2015 $\times 10^8$ yuan

Year	Regional GDP	Gross industrial output value	Fixed-asset investment	Financial revenue	Local financial revenue
2011	71.67	143.08	70.29	10.75	5.75
2012	80.13	161.58	85.09	12.43	6.63
2013	86.95	193.85	106.10	13.69	8.17
2014	94.94	217.38	120.27	15.77	9.31
2015	150.06	360.27	140.17	–	10.70
Annual average growth rate//%	19.38	29.14	20.11	–	18.76

1.3 Constant heightening of regional influence During the "12th Five-Year Plan" period, measures were adopted to improve administrative management mechanism and deepen the reform of administrative approval system to form simplified efficient management pattern. In addition, administrative charges were reduced gradually to alleviate enterprises' operation burden; convenience service channels were established at government websites to provide efficient, high-quality and convenient services for enterprises; the management system of economical intensive land use was implemented to promote the reform of rural construction land. Due to the implementation of these policies, a large quantity of enterprises were founded in the zone. In recent years, the zone has been awarded many honorary titles such as "a key service industry park in the province" and "the best investment park in Shandong".

1.4 Historic changes of harmonious society construction During the "12th Five-Year Plan" period, ensuring and improving people's livelihood were as the basic starting points and foothold, and harmonious society construction were promoted on a big scale; most limited funds were used in respect of people's livelihood, and the effect was significant. In 2015, the general financial budget was 1.07 billion yuan in Binzhou economic and technological development zone, of which the expenditure on public safety and education reached 0.33 billion yuan, accounting for 30.8% of the total budget; the expenditure on general public service was 0.11 billion yuan, accounting for 10.3% of the total budget; the expenditure on social security and employment, health care, and urban and rural community affairs was up to 0.40 billion yuan, accounting for more than 1/3 of the total budget. After five years of construction, the proportion of provincial normalized schools reached 25%, while the proportion of municipal normalized schools was up to 100% in the zone, and the proportions were the highest in the city.

2 Problems

2.1 The history of the zone was short, and its economic base was weak In China, characteristics of national development zones are shown as follows: the proportion of economic aggregate in urban GDP is high, and its contribution to central and local finance is significant. According to statistics, in 2015, the GDP and fiscal revenue of a national economic and technological development zone averaged 26 billion and 3.85 billion yuan respectively, while they were 9.49 billion and 1.577 billion yuan respectively in Binzhou economic and technological development zone, accounting for 36.5% and 41.0% of the national average respectively. Among 15 national economic and technological development zones in Shandong Province, various indicators of Binzhou economic and technological development zone were at the lower level. Its economic aggregate accounted for 1/11 of that of Qingdao economic and technological development zone; its gross industrial output value accounted for 1/4 and 1/5 of that of Weifang coastal development zone and Dongying development zone respectively; its local fiscal revenue accounted for 1/2 and 1/3 of that of Weifang coastal development zone and Dongying development zone respectively.

2.2 The proportion of secondary industry was high, and high-tech industry fell behind During 2011–2015, the proportion of secondary industry in Binzhou economic and technological development zone showed a steady decline and was kept at about 60%, changing by 1%–3%. On the whole, the proportion of secondary industry was stable and was always the leading force to promote GDP growth. Seen from the output value of various industries in secondary industry in the zone, the output value of textile industry and transportation equipment manufacturing industry was 4.43 billion and 2.47 billion yuan respectively, accounting for 44.17% and 24.63% of gross industrial output value (10.03 billion yuan); the output value of medicine manufacturing industry, instrumentation and cultural office machinery manufacturing industry, and metal product industry was also high (Table 2). These industries except for medicine manufacturing industry and instrumentation and cultural office machinery manufacturing industry are traditional manufacturing industries. These traditional industries are located at the development end and lower reaches of industrial chains, and the technical level of their products is low, while added value is also low, so it is difficult to support the development of high-end service industry.

Table 2 Output value of main industries in secondary industry in Binzhou economic and technological development zone

Industry	Output value // $\times 10^8$ yuan	Proportion // %
Textile industry	44.3	44.17
Transportation equipment manufacturing industry	24.7	24.63
Medicine manufacturing industry and instrumentation	4.2	4.19
Cultural office machinery manufacturing industry	3.8	3.79
Metal product industry	3.5	3.49
Food manufacturing industry	3.3	3.29
Power, gas and water production and supply industry	3.1	3.09
Artware and other manufacturing industries	2.2	2.19
replication of printing industry and recording medium	1.8	1.79
Beverage manufacturing industry	1.6	1.60
Plastic product industry	1.6	1.60
Farm and sideline food processing industry	1.3	1.30
Nonmetallic mineral product industry	1.6	1.60

2.3 The proportion of tertiary industry was low, and the development of modern service industry fell behind In international market, the competition between countries for the development of modern service industry was dominant substantially[2-3]. According to the practice of economic development in developed countries, the development of service industry in a country must be accelerated if the country want to develop into a powerful production country. Modern service industry is an industry that can enrich people. During the "12th Five-Year Plan" period, the output value of service industry in Binzhou economic and technological development zone increased from 1.871 billion to 5.465 billion yuan, and its average mean growth rate was 23.9%, 5.1% and 18.4% higher than that of primary industry and secondary industry respectively. However, its proportion was only 36.4%, lower than the average in Binzhou City, Shandong Province and China (Fig. 1). Therefore, to keep the healthy development of economy, it is necessary to speed up the development of service industry, enlarge the scale of service industry, and improve the proportion of service industry in economy.

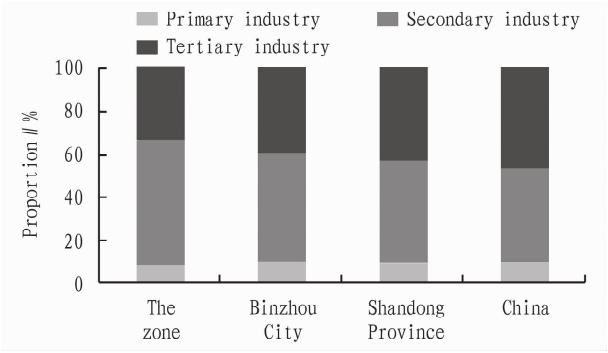

Fig. 1 Proportion of service industry in Binzhou economic and technological development zone

3 Countermeasures and suggestions

3.1 Constructing "4321" new industrial system and improving core competitiveness It is necessary to insist on five development concepts (innovation, coordination, greening, openness and sharing), paying equal attention to the improvement of traditional industries and development of strategic emerging industries, integration development of industrialization and informatization, actively promoting digital and intelligence of industrial production, and integrated and coordinated development of "the three major industries". In addition, it is necessary to promote the coordinated development of traditional industries, strategic emerging industries and modern service industry, realize transformation, optimization and upgrading of industrial structure system, and establish "4321" new modern industrial system. According to the development patterns of scale and intensification, it is necessary to actively develop four major strategic emerging industries (high-end equipment manufacturing industry, new material and new technology industry, high and new biomedical industry, and efficient energy conservation and environmental protection industry) and three major modern service industries (productive modern service industry, living modern service industry and agricultural modern service industry), optimize and upgrade two major traditional industries (home textile industry and efficient ecological agriculture)[3-4], and prioritize the development of cultural tourism industry to make it develop into a new industrial growth point in Binzhou economic and technological development zone and make the proportion of its output value in GDP reach 5%.

3.2 Insisting on innovative development and building modern development zones Firstly, it is necessary to speed up the construction of innovative platforms and carriers, improve innovative incubation chain and optimize innovative incubation environment. During the "13th Five-Year Plan" period, it is necessary to strive to build provincial entrepreneurship innovation demonstration bases. In 2020, the quantity of innovative carriers will be up to 100. Secondly, it is necessary to construct a series of public technology platforms that can break through key generic technology and drive industrial upgrading to provide professional services for enterprise innovation. In 2020, the number of public technology platforms will be five, and there will be 15 national research and development institutions and 15 national innovation service institutions, while 100 transformation projects of major scientific and technological achievements will be implemented in the zone. In addition, it is necessary to encourage all kinds of talent to conduct innovation and entrepre-

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3.2.4 Implementing talent training strategy of marine cultural industry. To make full use of the advantages of professionals during the development process of marine cultural industry, talent strategy should be implemented to cultivate high-quality compound professionals. Enterprises should establish reasonable talent introduction mechanism and build a variety of talent introduction channels to attract outstanding marine cultural talent to work in marine cultural industry and then promote the development of the industry. Meanwhile, effective incentive mechanism for talent should be established by means of income distribution, benefit, honors and awards to arouse marine cultural talent's enthusiasm for working. Besides, enterprises should talent training and use mechanism, develop various types of training activities to cultivate different kinds of talent. It is necessary to innovate income distribution system and adopt flexible income distribution ways to meet actual demands of workers, improve their satisfaction with enterprises and then arouse workers' enthusiasm for working. At the same time, it is needed to form talent market of marine cultural industry, broaden the limit on talent flow, absorb outstanding talent as much as possible[11], and enhance the core competence of marine cultural talent.

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neurship and provide good policy environment and development for talent introduction, strengthen the construction of innovation team and talent team, and deeply implement "the recruitment program of global experts", "innovative talent promotion plan", and "Taishan scholar blue industrial leader program" of Shandong Province to cultivate a series of innovation team and talent team with influence at home and abroad.

3.3 Accelerating municipal infrastructure construction and optimizing urban environment Focusing on the construction of characteristic parks, urban-rural integration and beautiful rural tourism, urban and rural roads and supporting projects, rural traveling paths and supporting projects, urban and rural riding green roads and supporting projects should be built to establish a three-dimensional transportation network system integrating production, living, tour and sightseeing. During the "13th Five-Year Plan" period, it is needed to build roads and bridges of Qinhuanghe ecological science and technology park and supporting projects, rural tourism projects around Shiziliu and the Yellow River ancient village style zone. And efficient ecological agriculture "one corridor and eight parks", roads and bridges, traveling paths and supporting projects, urban and rural riding green roads and supporting projects according to green travel. Meanwhile, it is necessary to strengthen underground and overground infrastructure construction in a city, build a sponge city, speed up the renewal of shanty towns and dilapidated buildings, implement comprehensive control of old housing estates, and heighten planning, layout and construction of urban parking lots.

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