

Economic Transformation And Development of Resource-Exhausted Cities Based on SWOT Analysis - Taking Baishan City as an Example

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Abstract. The economic development trend of Baishan city is comprehensively analyzed, and the corresponding development strategy is obtained according to the analysis conclusion by SWOT. SWOT analysis is a method of analyzing the strengths and weaknesses of an organization and the opportunities and threats it faces by synthesizing and summarising all aspects of the internal and external conditions of an enterprise. The strategic goal of Baishan's development is to complete the city's economic transformation and to achieve sustainable economic development in Baishan.

Keywords: SWOT;economic transformation; resource-exhausted cities.

1. Introduction

SWOT analysis, also known as situational analysis, were introduced by a professor of management at the University of San Francisco in the early 1980s as a way to analyze and study the reality of a unit more objectively and accurately. The SWOT four English letters represent respectively: advantage (Strength), disadvantage (Weakness), opportunity (Opportunity), and threat (Threat)[2]. In general, SWOT can be divided into two parts: the first part is SW, which is mainly used to analyze internal conditions; the second part is OT, which is mainly used to analyze external conditions. Using this method can find out from their favorable factors, worth carrying forward, as well as adverse to themselves, to avoid the things, find the existing problems, find out the solution, and clear the direction of future development. Through SWOT analysis, problems can be categorized according to their priority, and it can be clarified which are the urgent problems that need to be solved at present, which are things that can be delayed a little, which belong to the strategic objectives of the obstacles, which belong to the tactical problems, and these research objects are listed and arranged according to the matrix form, and then using the idea of system analysis, various factors are matched with each other and analyzed, from which a series of conclusions are drawn, which are usually of a decision-making nature, conducive to leaders and managers to make more correct decisions and planning[8].

2. Analysis of the strengths and weaknesses of economic development

2.1 Analysis of the advantages of economic development

Baishan city is very rich in mineral resources with a long history of exploitation. The main minerals are coal, iron, gold, copper, lead, zinc, diatomaceous earth, gypsum, dolomite, limestone, geothermal, mineral water, and so on. The city has discovered 100 kinds of minerals, including 36 kinds of minerals with proven reserves. There are 460 mineral production areas and 149 mineral deposits in the city, including 5 large deposits, 15 medium-sized deposits, and 129 small deposits. There are 28 proven mineral water sources.[7]

With its rich mineral resources, Baishan City has gradually formed several pillar industries and enterprise groups and has initially formed a more mature industrial base. The establishment and development of these mining enterprises have led to the development of related industries such as

electricity, processing and manufacturing, transport, and services, and have become a pillar industry in Baishan, making an important contribution to the economic development of Baishan and the province[7].

As a result of the steady and rapid growth in GDP levels, the city's fiscal revenues have increased significantly, from an annual GDP of RMB 37 billion in 2008 to an annual GDP of RMB 54.5 billion in 2011, following rapid growth in the industry. The strong fiscal revenue has provided a strong financial guarantee for the economic transformation of Baishan.

2.2 Disadvantage analysis of economic development

The city is typically mountainous and hilly, with little land available for construction, while the steep slopes of the mountainous towns also determine a serious shortage of land resources. Land resources are the most basic carrying capacity for social and economic development, and the constraint of insufficient land resources is bound to pose a major constraint on the development of Baishan's industries.

The ratio of primary and tertiary industries in Baishan is very small, while the economic linkages between the industries are not coordinated and do not allow for scale and long-term follow-on development capacity. The secondary industry is dominated by coal mining and processing, with very low added value. As coal mining is a typical resource-depleting industry, the replacement and development of the secondary industry in Baishan after resource extraction requires serious and long-term consideration and implementation.

Although the city is connected to the outside world by the Hunjiang-Baihe and Yuyuan-Dalizi railways, and the road network is well-connected by the 201 national highways and roads leading to cities and counties, the characteristics of the mountainous towns and their location determine the disadvantage of their relatively inconvenient traffic. However, the characteristics of the mountainous town and its location determine the disadvantage of relatively inaccessible transportation.

3. Analysis of opportunities and threats to economic development

3.1 Analysis of opportunities for economic development

In the country, especially in the northeast demand for coal has always increased in recent years, while the continued significant expansion of total economic indicators, a more relaxed monetary policy, and an active fiscal policy provide more room for the growth of other energy consumption. The high-quality mineral water produced in Baishan is also gradually being recognized both domestically and internationally, and demand will grow, with a broad market outlook.

In 2006, the "Several Opinions of the State Council on Promoting the Sustainable Development of Resource-based Cities" was issued. As of 2011, China has identified 69 resource-depleted cities (counties and districts) in three batches. According to the estimation, the central government's transfer payments to resource-depleted cities nationwide will be close to RMB 100 billion during the 12th Five-Year Plan period, and together with the provincial matching funds, the 69 resource-depleted cities are expected to receive over RMB 500 billion during the 12th Five-Year Plan period. "During the 12th Five-Year Plan period, 69 cities with depleted resources are expected to receive more than RMB 500 billion in financial support[5].

3.2 Threat analysis of economic development

Like other non-renewable resources, coal, iron, and gold are also depleting resources. The challenge is how to develop Baishan after the depletion of its resources. At this level, although mineral resources are now the basis of the city's economic development, their finite nature, and impending depletion are always serious threats to the city.

The three subsystems of tectonic and rock environment, soil environment, and water environment make up the composition of the geological environment system in Baishan. On the one

hand, the topography of Baishan City creates a special geographical environment for the formation of geological environmental problems; at the same time, the irrational exploitation of mineral resources and the irrational land use layout of human beings have also caused environmental problems in Baishan City. This will lead to a relative and long-term limited environmental capacity in Baishan City.

The management of environmental problems in Baishan requires a large amount of capital investment, increasing the expenditure of enterprises and the state treasury. For example, the remediation of rivers, the geological environment of mines, the treatment of tailings ponds and gangue dumps, the restoration of vegetation, and the relocation of migrants require corresponding financial support, which has already affected economic development and has become a major, long-term threat to the economic development of Baishan.

4. Analysis of the strategic orientation of mining economic development

4.1 SO, ST, WO, and WT strategies for economic development

By analyzing the Strengths, Weaknesses, Opportunities, and Threats [2.]of the development of the mining economy in Baishan City, the SO, ST, WO, and WT strategies for the development of the mining economy in Baishan City were summarised (Tables 1-4).

Table 1. SO Strategies for Economic Transformation and Development in Baishan City

| SO Strategy | S1:Rich in mineral resources, some of which are among the highest in Jilin Province in terms of retained mineral reserves | S2:Strong industrial base and huge development potential | S3:Strong financial support and adequate funding sources |
|--|---|--|--|
| O1 : Increased demand for coal and high quality mineral water in the domestic market | S1 O1 | S2 O1 | S3 O1 |
| O2 : National policy and financial support for cities with depleted resources | S1 O2 | S2 O2 | S3 O2 |

Table 2 ST Strategies for Economic Transformation and Development in Baishan City

| ST Strategy | S1:Rich in mineral resources, some of which are among the highest in Jilin Province in terms of retained mineral reserves | S2:Strong industrial base and huge development potential | S3:Strong financial support and adequate funding sources |
|---|---|--|--|
| T1 : Mineral resources are limited and will sooner or later be depleted | S1 T1 | S2 T1 | S3 T1 |
| T2 : Limited environmental capacity is already affecting economic development | S1 T2 | S2 T2 | S3 T2 |

Table 3 WO Strategies for Economic Transformation and Development in Baishan City

| WO Strategy | W1 : Bottleneck constraints at transport hubs | W2:Severe shortage of land resources and limited space for | W3:Underdevelopment of the successor industry |
|-------------|---|--|---|
|-------------|---|--|---|

| | | development | |
|--|-------|-------------|-------|
| O1 : Increased demand for coal and high quality mineral water in the domestic market | W1 O1 | W2 O1 | W3 O1 |
| O2 : National policy and financial support for cities with depleted resources | W1 O2 | W2 O2 | W3 O2 |

Table 4 WT Strategies for Economic Transformation and Development in Baishan City

| WT Strategy | W1 :bottleneck constraints at transport hubs | W2 : Severe shortage of land resources and limited space for development | W3 : Insufficient development of the successor industry |
|---|--|--|---|
| T1 : Mineral resources are limited and will sooner or later be depleted | W1 T1 | W2 T1 | W3 T1 |
| T2 : Limited environmental capacity is already affecting economic development | W1 T2 | W2 T2 | W3 T2 |

4.2 Strategic orientation of economic transformation and development

Through a comprehensive analysis of the strengths, weaknesses, opportunities, and threats to the development of Baishan's mining economy, we can identify a strategic approach to the development of Baishan's mining economy that should build on its strengths and avoid its weaknesses, seize opportunities, capitalize on its strengths and reduce threats. Using a systematic and integrated approach, the various environmental factors that were ranked and considered were matched to each other and combined to construct alternative countermeasures for economic transformation and development in Baishan. [3.]From Tables 6-1, 6-2, 6-3, and 6-4 it follows that

S-O strategy: grasping policy support and extending the industry chain.

S-T strategy: unified planning, rational layout, and optimization of the regional spatial environment.

W-O strategy: relying on the power of science and technology innovation, intensive and economical use of mineral resources.

T-O Strategy: Leveraging strengths and promoting succession industries.

5. Conclusion & Outlook

5.1 Grasp policy support and Extend the industry chain

Baishan is a pilot city for economic transformation, a pilot city for a circular economy, and a city with depleted resources, forming a policy overlap with China's famous specialty city and China's mineral spring city. At the same time, Baishan is also a national comprehensive experimental zone for sustainable development, the main functional planning area, the implementation of forest ecological protection and economic transformation planning, and other important planning, will also bring a rare policy opportunity for Baishan. A series of policy overlays will maximize policy support and financial support at the national level.To maximize the benefits of valuable resources, it is imperative to upgrade products and extend the industrial chain.

5.2 Unified planning and Rational layout to optimize the regional spatial environment

By seeking policy funding, optimizing the regional spatial environment, rationalizing the layout, and increasing the infrastructure construction between individual mining areas. Guiding industries to concentrate in agglomerations, land to scale operations, and population to towns and communities, scientific layout planning, transformation and upgrading of spatial structure, adjustment and optimization of industrial layout, promotion of spatial concentration of factors, and promotion of intensive industrial development.

5.3 Relying on the power of science and Technology innovation, intensive and economical use of mineral resources

Through technological innovation, promote changes in the way resources and energy are used, reasonably control total energy consumption, intensively and efficiently use resources, and improve resource output efficiency. We should accelerate the establishment of a circular industrial system, encourage key industries such as extractive industries, building materials, metallurgy, and chemical industries to optimize their production processes, promote circular industrial combinations, encourage the construction of cross-industry and cross-enterprise resource recycling industrial systems, and promote the use of industrial raw materials, energy laddering, and efficient output.

5.4 Leveraging strengths and Promoting succession industries

Focusing on the "three, five, two" industries established by Baishan City, we highlight the special industries with strong growth, obvious advantages, and broad prospects.

First, is the tourism industry. The largest single domestic investment in tourism projects - Changbaishan International Tourism Resort demonstration drive, improve the Chinese private economic development forum and another external exchange platform, opening a new Changbaishan tourism "Western Slope era". Secondly, the mineral water industry. Focusing on giving full play to the resource advantages of one of the world's three mineral water-rich areas, we will further strengthen large-scale cooperation with international and domestic strategic partners, upgrade the level of the industry and expand its scale. The third is the ginseng industry. We will accelerate the "second venture" of the ginseng industry, promote standardized cultivation, improve the quality of ginseng, strengthen scientific research, develop ginseng food, medicine, health care products, and cosmetics, introduce strategic investment bodies, integrate ginseng brands, and truly show the advantages of the main ginseng producing area and core area. At the same time, we will closely grasp the industrial trends and policy guidance, and strive to make the first breakthrough in new energy, new materials, biomedicine, energy conservation, and environmental protection, to seize the first opportunity for the development of new industries and build a modern industrial system with comparative and competitive advantages. The fourth is the special agricultural product cultivation industry. Focus on the characteristics and seize the key points to form a characteristic industrial belt. Through the mode of forming various professional cooperatives, cultivating demonstration households and demonstration bases, the characteristic industries can form a scale, reduce costs, form competitiveness, and increase the ability to resist market risks.

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