

Analysis on the Characteristics and Regional Differences of County Economy in Jilin Province-Based on the Comparison with Developed Areas

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Abstract. The county-level economy in Jilin Province plays a pivotal role in the province's development, yet faces multiple challenges including limited industrial clusters, a significant economic scale gap compared to developed regions, and uneven regional development. This study employs literature review and case analysis methods, utilizing planning documents and statistical yearbooks as data sources. It examines the actual conditions and characteristics of Jilin's county-level economic development while conducting comparative analyses with advanced provinces. Despite Jilin's advantages in distinctive industries, abundant resources, and innovation potential, these constraints hinder its progress relative to developed regions. To achieve high-quality development, strategies such as optimizing industrial structures, fostering industrial clusters, enhancing park construction efficiency, and promoting regional coordination should be implemented.

Keywords: Jilin Province, county economy, development advantage, realistic predicament.

1. Introduction

China's county economies are now at a critical juncture of transformation and upgrading [15]. While developed provinces have achieved leapfrog development through industrial clusters and innovation-driven strategies, Jilin Province's county economies—key drivers of regional coordinated development—currently face numerous challenges. Existing research predominantly focuses on economic indicators, lacking in-depth exploration of development models and innovation ecosystems. This results in reference experiences that lack both relevance and practical applicability. This study examines Jilin's county economies by first mapping their developmental foundations and characteristics, then expanding comparative dimensions to include county economies from developed regions. Through systematic analysis of comparative advantages and practical constraints, the research proposes targeted development strategies. These conclusions aim to provide effective solutions for overcoming bottlenecks and achieving high-quality development in Jilin's county economies.

2. The Realistic Foundation of County Economy Development in Jilin Province

2.1. The economic layout of Jilin Province

Jilin Province is located in the core area of China's northeast, covering a total area of 187,400 square kilometers. It borders Heilongjiang, Liaoning, and Inner Mongolia, serving as a key link for regional economic and cultural exchanges. The province administers 42 county-level administrative divisions, including 3 municipal districts, 16 counties, 3 autonomous counties, and 20 county-level cities [4]. Jilin Province is vast, divided into three regions: the east, central, and west. These regions have distinct characteristics and development directions, laying the foundation for the growth of county-level economies [10].

2.1.1. Eastern Green Transformation Region

Jilin Province's eastern region, centered around Changbai Mountain and connected by the Yalu River, enjoys distinct geographical advantages that have laid a solid foundation for industrial clusters [13]. This green transition zone boasts abundant agricultural and forestry resources [13]. In 2024, Zhenlai County achieved a rice yield of 548.6 kilograms per mu (approximately 0.067 hectares)

through soda salt-alkali soil greening techniques. Tongyu County's clean energy grid-connected capacity reached 5.86 million kilowatts. Regarding green management, Tonghua City maintains 6.57 billion cubic meters of total water resources, with forest coverage at 62.3% and standing timber volume of 7,213 cubic meters [14]. By leveraging green technologies and management measures, eastern Jilin has significantly boosted industrial development, optimized the ecological environment, and achieved remarkable progress in green transformation.

2.1.2. Core Area for Innovation and Transformation in the Central Region

The central region of Jilin Province plays a pivotal role in driving the province's innovative development. As the capital of Jilin Province, Changchun City is located in the central part of the province and serves as a key support for the "Belt and Road" northern route and the "China-Russia-Mongolia" economic corridor, creating favorable local conditions for Jilin's innovative transformation [12]. In 2024, the total R&D investment across the province reached 21.02 billion yuan. The central region has made significant contributions by hosting over 90% of the province's scientific and educational research institutions, along with 46 universities and 7 Chinese engineering research centers, providing intellectual support for innovation transformation [13]. The region has also demonstrated notable achievements in technological innovation, with 3,609 scientific and technological achievements successfully commercialized and technology contracts generating 24.009 billion yuan in transaction value, driving industrial upgrading and transformation [4]. From an industrial transformation perspective, traditional industries in the central region are accelerating their transition toward high-end and intelligent development, while actively incubating emerging industries to lead the province's innovation efforts.

2.1.3. Western Ecological Economic Zone

The western region of Jilin Province boasts a strategically advantageous location with abundant natural resources, providing an ideal foundation for developing an ecological economy [8]. Local authorities have actively implemented ecological conservation measures, adding 250 million cubic meters of water storage capacity to Baicheng's entire territory and restoring 640 square kilometers of wetlands. Significant progress has also been made in combating desertification. Through sustained implementation of projects like the "Three-North Shelter Forest Program," the forest coverage rate in Baicheng has risen from 9.8% in 2009 to 12.63% today, markedly reducing sandstorms. The ecological environment in Jilin's western ecological economic zone is showing overall improvement, laying a solid foundation for sustainable development.

2.2. Characteristics of County-level Economic Development in Jilin Province

According to the 2024 Statistical Yearbook of Jilin Province, by the end of 2023, the total land area of counties in Jilin Province reached 172,785.5 square kilometers, accounting for nearly 93.5% of the province's total land area. The total population in these counties totaled 17.4937 million, representing almost 74% of the province's total population. The concentration of vast land resources and a large population in these counties has laid a solid foundation for their economic development.

2.2.1. County economy is growing

In terms of GDP scale, Jilin Province achieved a regional GDP of 1.353119 trillion yuan in 2023, representing a 31.7% increase compared to the projected 1.027411 trillion yuan by 2025. The province's economy has undergone complex transformations. From 2015 to 2018, its industrial structure was heavily reliant on traditional sectors like automotive manufacturing, agricultural processing, and petrochemicals. The slowdown in the automotive industry in 2015 led to a deceleration in provincial economic growth, constraining both corporate production capacity and investment potential. This economic stagnation resulted in reduced employment opportunities and a brain drain, while the lack of technological support for industrial upgrading hindered growth. However, since 2019, with the sustained implementation of Northeast Revitalization policies, Jilin's GDP has shown a steady upward trend, with an improving development outlook [5].

2.2.2. The industrial structure is gradually being optimized

Prior to the industrial structure optimization initiative, Jilin Province's county-level economy operated at a low industrial structure level [3]. While prioritizing food security and maintaining agriculture as the primary focus, the province saw sustained growth in efficiency agriculture, green agriculture, and specialty agriculture, which kept the primary sector's share relatively small. In this context, the secondary sector lacked distinctive features, whereas the tertiary sector maintained a disproportionately high share compared to the primary sector, failing to sustain overall economic growth [5]. As Jilin's county-level economy progresses, its output value and sectoral proportions have been dynamically evolving. The industrial structure has transitioned from being primarily driven by agriculture, through secondary sector dominance, to tertiary sector leadership [5]. From 2015 to 2023, Jilin Province's economy experienced fluctuations with a recovery in 2023, though still below 2021 levels. The primary sector's share declined annually as industrial and service sectors grew faster than agriculture. The secondary sector saw significant volatility: decreasing from 2015 to 2019, showing a slight rebound in 2020, and entering negative growth in 2022 amid industrial transformation pressures. The tertiary sector expanded from 3.7% to 3.9% between 2015 and 2021, then declined in 2022 before rebounding in 2023. While the province implemented dynamic structural adjustments toward tertiary sector dominance, challenges like unstable growth and sectoral setbacks persisted.

2.2.3. The per capita disposable income of farmers in county area is increasing

With the continuous improvement of county-level economy in Jilin Province, the per capita disposable income of farmers has increased, leading to a rise in demand for various goods. This trend has significantly boosted market activity [7].

From 2015 to 2023, Jilin Province witnessed steady income growth for both urban and rural residents. By 2023, the per capita disposable income of urban residents reached 37,503 yuan, while rural residents' per capita disposable income stood at 19,472 yuan, marking a 7.4% year-on-year increase. Leveraging resource advantages and diversified approaches like tourism development, county-level administrations in Jilin have effectively boosted rural residents' income levels, with urban-rural industrial integration achieving a high degree of synergy [2].

3. Comparative Analysis of County Economy between Jilin Province and Developed Areas

3.1. Industrial clusters

Industrial clusters enable enterprises within a county to reduce production costs through shared infrastructure, centralized procurement, and joint sales. For instance, in the Dehui Food Processing Industrial Cluster, numerous companies collaborate to secure bulk purchasing discounts on raw materials and share logistics facilities during transportation. This synergy boosts production efficiency, achieves economies of scale, and ultimately enhances the competitiveness of their products in the market.

In 2022, Jilin Province had only one specialized industrial cluster for small and medium-sized enterprises (SMEs), while Jiangsu Province boasted two such clusters, demonstrating its slight advantage in cultivating distinctive industrial clusters. From a traditional industrial perspective, Jilin's county economies are dominated by agriculture and heavy industry, exhibiting a notably homogeneous structure with underdeveloped emerging sectors. Jiangsu, however, demonstrates stronger growth in light and medium industries as well as high-tech sectors, with a higher proportion of the tertiary industry in its industrial structure. This more balanced industrial composition has significantly enhanced the vitality and competitiveness of its economic development.

3.2. Base Park

Base parks provide enterprises with comprehensive infrastructure and supporting services, reducing construction and operational costs. This attracts numerous businesses to settle in the parks. Successful base parks can enhance a county's reputation and influence both Chinesely and

interChinesely, drawing in external resources such as investments, professionals, and cutting-edge technologies, thereby further boosting the county's economic development.

By the end of 2022, Jilin Province had only one Chinese-level industrial park within its county-level administrative regions, while Jiangsu Province boasted 12. This stark contrast highlights Jiangsu's more diversified platforms and carriers for county-level economic development, along with stronger support for industrial clustering and growth. It also demonstrates that Jiangsu's county economies enjoy more favorable foundations in industrial agglomeration, innovative resource integration, and policy safeguards.

3.3. Innovation and Development

The distribution of Chinese innovative counties by province and the 2022 Chinese Intellectual Property Power County Demonstration Project, as released by the Chinese Intellectual Property Administration, reveals that Jilin Province has only 3 Chinese innovative counties, ranking relatively low among all provinces. This reflects that Jilin started developing innovative county initiatives later than some developed regions and may lack sufficient momentum in implementation. The province also has only 2 Chinese Intellectual Property Power County Demonstration projects, indicating its lagging progress in advancing the initiative. Further efforts are needed to strengthen intellectual property creation, utilization, and protection. Jilin's county-level economy shows relatively underdeveloped capabilities in innovation and intellectual property, requiring increased policy support and resource allocation to foster innovation entities and achieve high-quality development.

Jiangsu Province leads China with 14 Chinese Innovative Counties, a record high among provincial-level regions. This achievement highlights the province's remarkable success in county-level innovation development, fueled by its robust economic foundation, abundant scientific resources, and a thriving innovation ecosystem. The province also boasts 14 Chinese Intellectual Property Power Counties, ranking first nationwide. These accomplishments demonstrate Jiangsu's outstanding performance in building innovative counties and its leading position in intellectual property protection and utilization. Such progress not only strengthens the core competitiveness of local enterprises and accelerates industrial upgrading, but also provides strong support for the sustainable and healthy development of county economies. This highlights Jiangsu's commitment to innovation and intellectual property protection as a key driver of high-quality economic growth in its counties.

4. Comparative Advantages and Practical Difficulties of County-level Economic Development in Jilin Province

4.1. Advantages

4.1.1. The foundation of specialized industries

Several counties in Jilin Province have successfully cultivated distinctive industries. In the healthcare sector, Meihekou City has attracted numerous renowned pharmaceutical companies through advanced R&D technologies and a comprehensive industrial ecosystem. The city has achieved remarkable success in drug development while maintaining strong production scale advantages. Gongzhuling City has established a complete industrial chain for automotive components, covering R&D, manufacturing, and sales. Its high-quality, technologically advanced auto parts hold a dominant position in China's automotive parts market. As the core area for ginseng cultivation, Fusong County operates scientifically standardized planting bases with strict quality control. Leveraging its unique ginseng resources, the region has built a highly competitive industrial cluster, enjoying significant influence in both domestic and interChinese ginseng markets.

4.1.2. Resource endowment advantages

Jilin Province boasts exceptionally abundant natural resources that form a solid foundation for economic development. The region features the Golden Corn Belt and Soybean Belt, alongside rich forestry resources [11]. The Changbai Mountain area contains substantial forest specialty resources, where diverse rare wildlife not only serves as an ecological treasure trove but also provides high-quality materials for processing forest specialty products and eco-tourism industries. In terms of mineral resources, some counties are endowed with significant reserves of non-ferrous metals and non-metallic minerals, offering raw material support for mining and related processing industries. Certain areas enjoy widespread and stable distribution of clean energy resources like wind and solar power. Tongyu County, for instance, has fully tapped into its abundant wind energy resources by constructing large-scale wind farms, attracting numerous wind power equipment manufacturers. This has fostered a new energy industry cluster integrating R&D, manufacturing, installation, and maintenance of wind power equipment, injecting fresh momentum into regional economic development while aligning with the requirements of green development in the modern era.

4.1.3. Potential for innovative development

Jilin Province has achieved notable progress in the Chinese Innovative County and Chinese Intellectual Property Power County demonstration initiatives, with several pilot counties demonstrating valuable expertise in scientific innovation investment, platform development, and talent cultivation. These regions have established industry-university-research collaboration frameworks, deepened partnerships with universities and research institutions, and accelerated the commercialization of local technological achievements [1]. Notably, enterprises in these counties have partnered with Jilin University and Northeast Normal University to tackle technological challenges, yielding breakthroughs in pharmaceutical R&D and agricultural product processing. These innovations have significantly enhanced industrial technological sophistication and market competitiveness. By further integrating resources and intensifying innovation incentives, the province can effectively transform these foundational capabilities into tangible productivity. Such efforts will undoubtedly drive industrial upgrading and transformation across Jilin's counties, propelling the province toward high-quality economic development.

4.2. Disadvantages

4.2.1. There are few industrial clusters

According to 2022 statistics on specialized industrial clusters for small and medium-sized enterprises (SMEs), Jilin Province has only one cluster, with limited numbers and scattered spatial distribution [4]. Developed provinces have leveraged numerous industrial clusters to achieve high-level industrial agglomeration and coordinated development, building formidable competitive advantages. In contrast, Jilin's county-level clusters demonstrate weak synergistic effects. The absence of a dominant industry leads to fragmented enterprise clustering—while some counties host corresponding clusters, they exhibit excessive interdependence without forming dense industrial or supply chains. These clusters merely aggregate production without generating economic returns [6].

4.2.2. There are few Chinese-level parks

By 2022, Jilin Province had a relatively low number of Chinese-level industrial parks at the county level. These parks serve as crucial platforms for industrial clustering, investment attraction, and innovation resource aggregation, offering advantages in policy support, funding, and technology. The insufficient number of such parks has left Jilin's counties at a disadvantage in attracting large-scale corporate investments, facilitating the relocation of high-end industries, and engaging in interChinese cooperation. This lack of effective platforms for high-end industrial development hinders the recruitment of top-tier talent, advanced technologies, and quality capital, thereby impeding the transformation of industries toward higher-end, intelligent, and green development. As a result, the region faces a competitive disadvantage in regional economic development.

4.2.3. The economic scale and competitiveness are weak

In the Chinese ranking of top 100 county economies, Jilin Province's overall performance falls short. Compared to developed provinces, its county economies demonstrate significantly smaller economic scales. Typically, developed provinces' counties feature multiple large enterprise groups and industrial giants with substantial economic output. In contrast, Jilin's counties exhibit weaker economic strength and less competitive edge in the market. They invest relatively less in product R&D, brand building, and marketing, resulting in low added value and limited market share. Enterprises in these counties lag behind developed regions in technological innovation, management, and talent reserves, making it difficult to compete with strong competitors in domestic and interChinese markets. This situation hinders the further development and growth of county economies.

4.2.4. Industrial structure needs to be optimized.

Jilin Province's underdeveloped industrialization has become a major obstacle to its sustainable development. The province's economy remains small in scale, with weak infrastructure development. Many county-level regions dominated by traditional industries lack leading enterprises, suffer from weak brand promotion capabilities, and struggle with market expansion [6]. The imbalanced development of primary, secondary, and tertiary industries has created economic challenges for county-level regions, while the industrial chain remains short in length [9]. State-owned enterprises dominate the economy, private enterprises underdevelop, and the economic growth model remains stagnant, reflecting an unscientific economic structure [7].

5. Recommendations

5.1. Cultivating industrial clusters

Leveraging Jilin Province's transportation advantages and regional strengths, we will strengthen industrial clusters between the central area and surrounding regions, consolidate existing achievements, and actively promote the clustering of the province's specialty industries and cultural industries. This will ensure rational distribution, boost economic growth, and enhance infrastructure development to foster a positive development momentum [6].

5.2. Striving to establish and develop the industrial park

Given the scarcity of Chinese-level industrial parks and their generally subpar standards, the government should rationally allocate land use, develop distinctive industrial parks to drive the growth of three key industries, and implement preferential policies to attract more social resources. This collaborative effort will accelerate park development and yield more substantial economic benefits [6].

5.3. Optimize the industrial structure

Jilin Province should prioritize the optimization of its industrial structure, with particular emphasis on the transformation and upgrading of traditional industries and the adjustment of the three major industries. The government should introduce relevant policies to leverage the development of the secondary industry to drive the progress of the primary industry. As for the tertiary industry, it should strengthen the cultivation of the foundation of traditional and characteristic industries, thereby achieving optimization and adjustment [6]. In line with the Belt and Road Initiative, Jilin Province's development strategy, and the unique characteristics of each county, plans should be formulated to align with the current development status [7].

6. Summary

Jilin Province's county-level economy is built on a solid foundation, supported by its unique geographical location, abundant resource reserves, differentiated regional layouts, and positive economic trends. Key achievements include optimized industrial structures, improved fiscal performance, and increased farmer incomes. While demonstrating strengths in specialized industries, resource advantages, and innovation potential compared to developed regions, the province still faces challenges such as limited industrial clusters, insufficient Chinese-level industrial parks, weaker economic scale and competitiveness, structural industrial improvements, and regional development imbalances. These practical difficulties highlight the gap between Jilin's county-level economy and advanced regions. Identifying the intrinsic connections between strengths and weaknesses, and understanding the root causes of disparities, is crucial for bridging development gaps, overcoming obstacles, and achieving qualitative leaps in county-level economic growth. Moving forward, leveraging regional resource endowments to cultivate specialized industries and enhancing inter-regional collaboration to strengthen sectoral synergy will provide a solid foundation for sustainable development.

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