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Retraction

Retracted: Optimization of Economic Development Path in Western Region under Background of "the Belt and Road Initiative" Based on Intelligent Internet of Things

Security and Communication Networks

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] J. Jiao, "Optimization of Economic Development Path in Western Region under Background of "the Belt and Road Initiative" Based on Intelligent Internet of Things," *Security and Communication Networks*, vol. 2022, Article ID 9116484, 12 pages, 2022.

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Research Article

Optimization of Economic Development Path in Western Region under Background of "the Belt and Road Initiative" Based on Intelligent Internet of Things

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The Internet of things is a network that can realize the information interaction between all independent inanimate objects. It is a network that allows people to experience how to talk with objects. Its emergence is a milestone of world information technology. With the development of the Internet of things, more and more research is carried out on the basis of the Internet of things, and the economic development of the western region should seize the opportunity of the Internet of things and find a suitable development path. This paper mainly studies the optimization of the economic development path of the western region under the background of the "the Belt and Road" to help the western region develop rapidly. This paper puts forward the interactive development path of industrial clusters and new urbanization. Through the simulation data, the total GDP and per capita GDP of the western region in the next few years are analyzed and summarized. The data show that under this method, the total GDP and per capita GDP of the western region will increase by more than 30% every year in the next five years, and will continue to rise.

1. Introduction

With the development of society, the development of intelligent Internet of things has reached a new height. A large number of researchers have studied the Internet of things. It applies the Internet of things to all places and enables the rapid development of all parts of society. However, Western China has not been developed and its economy is underdeveloped. Inner Mongolia, Xinjiang, Yunnan, Guangxi, Tibet, and other border and western regions serve as the main strategic fulcrum of China's "the Belt and Road" construction. It is not only a leading area for China to establish a comprehensive opening-up layout, but also an important gateway and link for connectivity between China and many neighboring countries and Eurasian countries. It has a special strategic position and key significance in the national strategy. It is an important opportunity for the economic and social development of the central and western regions. Therefore, under the strategic opportunity of China's "the Belt and Road", it is very important for the western region to give full play to its regional advantages. This has led many researchers to start to study the "the Belt and Road" to find the optimal path for economic development, so that the economic development of central and Western China can develop rapidly under the background of the "the Belt and Road".

The content of this paper has far-reaching theoretical and practical significance. Firstly, in terms of basic theory, this paper tries to analyze the development opportunities and challenges faced by the central and western regions of China under the background of the "the Belt and Road" by using the circle structure theory. This paper studies the economic development path of mutual development between industrial clusters and new urbanization, determines the internal logical relationship between them, and makes an empirical analysis on the economic development level of central and western regions of China. It puts forward policy suggestions to improve the interactive effect between industrial clusters and new urbanization in central and Western China, so as to realize the overall improvement of

the competitiveness of industrial clusters and the quality of new urbanization. It is another attempt to expand the theoretical system of industrial clusters and new urbanization. In terms of social practice, due to the continuous improvement of the scale of industrial clusters and the level of new urbanization in various provinces and cities in the central and western regions, it still faces certain quality problems and development bottlenecks. It determines the future development trend of industrial clusters in the western region and a series of measures in the process of new urbanization. It can promote the efficient industrial upgrading and transformation in the western region. This paper provides a theoretical basis for the construction of new urbanization and provides support for China's regional coordinated development.

This paper mainly takes the total GDP and per capita GDP of the western region in previous years as the initial comparison. Then, it built models in Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi. Through the simulation of intelligent Internet of things, this paper analyzes the general situation and growth rate of total GDP and per capita GDP of Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi in the next few years. Then, the advantages and disadvantages of the initial development path of the new-type industrial cluster are compared with the feasibility of the new-type industrial cluster. The innovations of this paper are as follows. (1) This paper compares the total GDP and per capita GDP of the eastern and western regions and analyzes the problems existing in the western region. (2) Through some existing data, this paper constructs the model of the western region, and then makes a large-scale analysis of the situation of the western region in the next few years through the Internet of things. (3) This paper forecasts through the experimental data, and then gives the matters needing attention and suggestions in the western region under this development path according to the predicted data.

2. Related Work

At present, a large number of researchers have studied the intelligent Internet of things. Santos proposed an intelligent personal assistant based on the Internet of Things, which can be used to assist people in many daily activities [1]. Kim and Lee studied existing solutions for establishing and managing trust in network systems and proposed an efficient and scalable trust management approach for IoT based on locally centralized, globally distributed trust management [2]. Zhu et al. studied mass sports fitness based on the Internet of Things and smart systems. With intelligent information collection devices, digital terminals can monitor health status at any time [3]. Dan et al. used the Internet of Things technology to simulate the sports training model, and put forward a computer multimedia simulation sports training model design method based on fast exploration control of posture change space [4]. Sun et al. studied the network security technology of smart information terminals based on the mobile Internet of Things, and compared the current main encryption algorithms of mobile Internet [5]. But they are more expensive to make.

In addition, some researchers have studied the optimization of economic development path in the western region under the background of "Belt and Road". Wang et al. studied the logistics system of land and port from the point of view of belt and road, and put forward the comprehensive gravitational model of foreign trade between multiple land ports at the land intersection [6]. Zhang made a regression analysis on China's foreign direct investment and export trade data of Belt and Road countries [7]. But the subjects were not very persuasive. Yang et al. studied the path optimization of mobile sensor networks to improve the accuracy of estimating stationary targets [8]. Krishna et al. mainly studied the best reliable ordered routing path between source and destination nodes in MANET, and presented a hybrid algorithm [9]. But their methods are not comparative.

3. West Area "Belt and Road" Method under the Intelligent Internet of Things

3.1. Intelligent Internet of Things. The concept of the Internet of Things first appeared in people's view in the 1990s. The development of the Internet of things is mainly divided into four stages. The first stage is the primary stage of the Internet. The second stage is the development stage of the Internet. The third stage is the expansion stage of the Internet; The fourth stage is the embedded development stage. The emergence of the Internet of Things has enabled the world to realize the legend that all things in the world can be freely connected. It is not an accident. Many researchers have studied the Internet, radio frequency identification RFID, code standards for electronic products, and wireless communication technology to find their commonalities. Based on these technologies, the Internet of Things has become a powerful and vital information technology [10]. Ultimately, the Internet of Things is a network that enables the exchange of information among all independent inanimate objects, as well as a network that enables people to experience how to talk to objects. Its appearance is a milestone in world information technology [11]. It is used in many areas, as shown in Figure 1.

Each of these areas accounts for as shown in Table 1.

The Internet of Things is built on the basis of the Internet, which not only has a variety of characteristics of the Internet, but also extends its more prominent features. The basic features of the Internet of Things are perception, reliability, and intelligence. It is mainly reflected in the following three aspects [12, 13]. (1) Perceptibility is mainly reflected in the identification and communication of the Internet of Things. Throughout the Internet of Things, there are a large number of sensors, each of which is a source of information. The sensor accepts information and identifies it through a specific protocol meter. (2) Reliability is mainly reflected in the reliability of information transmission. Through cloud computing, fuzzy identification, and other technologies, it can reliably transmit and issue timely instructions corresponding to the changes of various things. (3) Intelligent Internet of Things is the communication between things. It is not interfered by people, that is, not

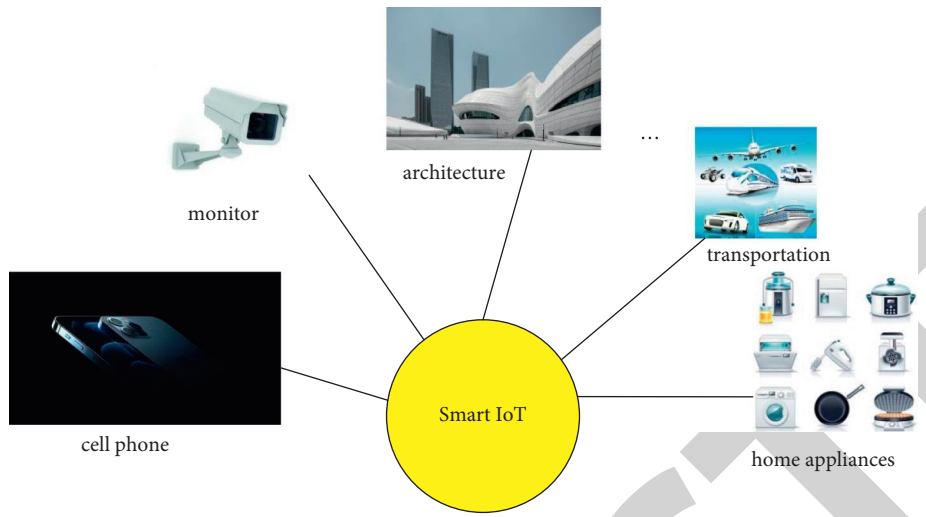

Figure 1: Internet of Things domain map.

authorized by people, but only a kind of conscious control. The Internet of Things transmits, analyses, and processes information through various technologies, and ultimately makes intelligent decisions through intelligent control.

The Internet of Things involves many technical fields such as software, hardware, communication, and security. Its main technology includes three aspects: identification technology, communication technology, and network technology. Coding technology can be said to be a supporting technology of the Internet of Things. The implementation of the Internet of Things can be achieved on the basis of coding technology. The identification technology applied in the description of the device is based on the characteristics of the item; it is the physical implementation of the item code. Communication protocol means that the delivery of communication services must comply with the rules already stipulated. In the process of communication, the communication protocol plays a major role as a standard specification. Both parties follow the communication rules agreed upon beforehand to ensure the secure recognition of language in the computer-network connection. It can be seen that the communication protocol is essential in the communication process. Networking technology is a combination of Ethernet technology and ATM LAN technology. Ethernet is very flexible and convenient; it can combine many different topological structures of the object media into one. It is a dominant network technology currently widely used [14]. Because of the Internet of Things, technology is related to free space loss. All fields are pursuing the ideal omnidirectional antenna, whose free-space loss calculation formula is

$$\frac{p_i}{p_r} = \frac{(4\pi fd)^2}{c^2}, \tag{1}$$

where p_i represents the signal power of the transmission antenna, p_r receives the signal power of the antenna, D represents the distance between antennas, C represents the speed of light, and f represents the carrier frequency.

The Internet of Things (IOT) system is complex in structure and uses many fields of technology, such as computer software, electronics, and sensors. Depending on the direction of data flow and processing, the hierarchy is divided into three layers: the perception layer, the network transport layer, and the application layer [15]. The perception layer is located at the bottom, which is the of perception data. The network transport layer is located in the second layer, which is used to transmit data. It is used to transfer and process information. The application layer is at the top, which is the content. By analyzing and processing information and using intelligent control, it realizes intelligent decision-making and transmits data, as shown in Figure 2.

Table 1: Percentage in all fields.

Area	Transportation	Home appliances	Mobile phone
Proportion	16.4%	34.8%	9.8%
Area	Surveillance	Building	Others
Proportion	8.5%	23.5%	7%

3.2. Western Regions in the Background of Belt and Road. In the "Belt and Road" strategy, "Belt" refers to the "Silk Road Economic Zone" and "Road" refers to the "Maritime Silk Road of the 21st century". The ancient Silk Road has always played a decisive role in trade between China and other countries. It is a bridge and channel to promote cultural exchange among countries [16]. The Silk Road Economic Zone is not only a way of economic trade and cultural exchange, but also a new mode and policy of cooperation. The development of the Silk Road Economic Zone has undergone a long period of exploration, and there is a more consistent view on the division of Chinese regions. Through the full communication and docking of economic policies of countries along the "the Belt and Road", they jointly participate in the formulation of guidelines and policies to promote regional cooperation. It enables the problems in mutual cooperation to be solved in consultation. It provides policy support for practical cooperation and the implementation of large-scale projects, as well as through cooperative school

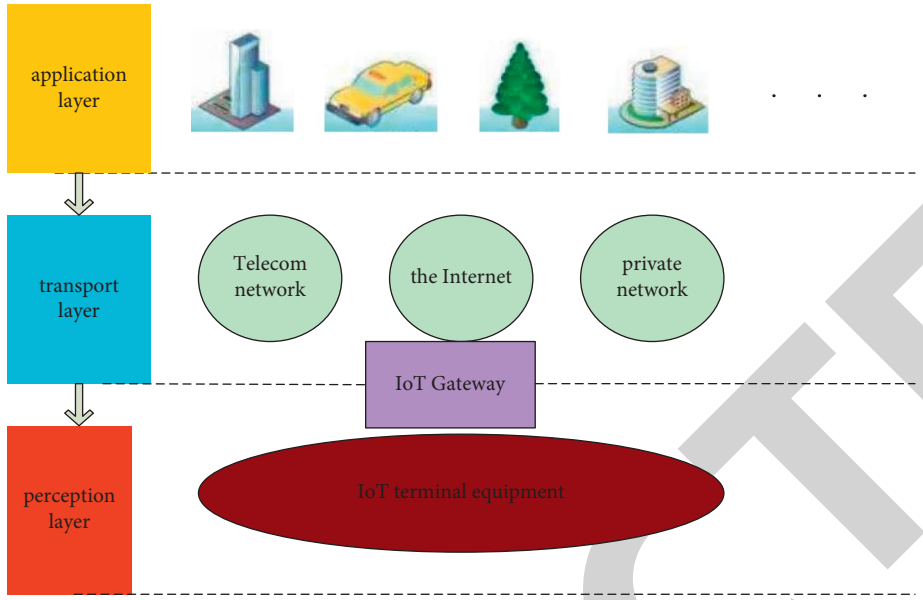

Figure 2: Internet of Things system architecture.

running, tourism cooperation, scientific and technological cooperation, information communication of infectious diseases, and other measures. It promotes friendly exchanges between countries along the line and lays a public opinion foundation for deepening bilateral and multilateral cooperation.

The "Belt and Road" strategy regards economic and trade cooperation as the cornerstone and principal axis of the national strategy and adheres to the concept of open and inclusive cooperation. It utilizes the strategic cooperation of government agencies along the line, the network of infrastructure, the cooperation of investment and operation, the establishment of currency and investment and financing systems, and the extensive economic interaction and cooperation of the people in the region. It will encourage all regions to make full use of their respective resources, cooperate and complement each other, and jointly promote pan-Asian and Eurasian regional cooperation to a new height [17].

The western region includes 12 provinces in China. Since the strategic concept of the Silk Road Economic Zone was put forward in November 2013, the western region is still in the initial stage from the overall framework to the specific implementation. At present, a considerable amount of policy support and regional planning have been issued, and the effect of implementation needs to be improved. However, there is a large gap compared to the east, as shown in Figures 3–5.

It can be seen that the total GDP in the eastern region is more than twice as high as that in the western region, and the growth rate of GDP in the western region continued to decrease from 2016 to 2021. GDP per capita is also growing slowly, much less than the eastern region. Therefore, the western region should seize the opportunity of the Internet of Things and find a good economic development path to increase GDP.

3.3. Optimizing Economic Development Path. This paper mainly analyses the two methods of new urbanization and industrial cluster, and then summarizes and optimizes the interactive development of industrial cluster and new urbanization, which is a more comprehensive economic development path.

Industrial cluster refers to the clustering of complementary or competitive enterprises in a certain geographic location, with the same industrial links and internal industrial division among enterprises. It is different from both market relations and internal relations of enterprises, and it is a new form of organization [18]. There are many ways to measure industrial cluster index, such as spatial Gini coefficient, location quotient, enterprise clustering index, and index system. Among them, the larger the spatial Gini coefficient is, the higher the degree of industrial clusters, which is a simple and universal method. However, there are some drawbacks. When there are large enterprises in a region, the spatial Gini coefficient is also very large, but it does not form an industrial cluster, so it is not very common now. Enterprise clustering index is evolved from "rough industry clustering index". It takes into account the impact of industry enterprise size and regional hierarchy. The construction of the index system is basically measured by the number of enterprise units, industrial value-added, the number of employees, sales income, and so on. Location quotient is an improved method based on the spatial Gini coefficient. It is used to evaluate regional excellent industries, also known as specialization rate. That is, the proportion of the relevant value (output value, employment number, etc.) of an industry in a region divided by the total output value or employment number in a region in the whole country, which is compared with the national average level. When the location quotient is greater than 1, it shows that it leads the national level and has a higher degree of industrial cluster, which is also the commonly used method now. Based on the

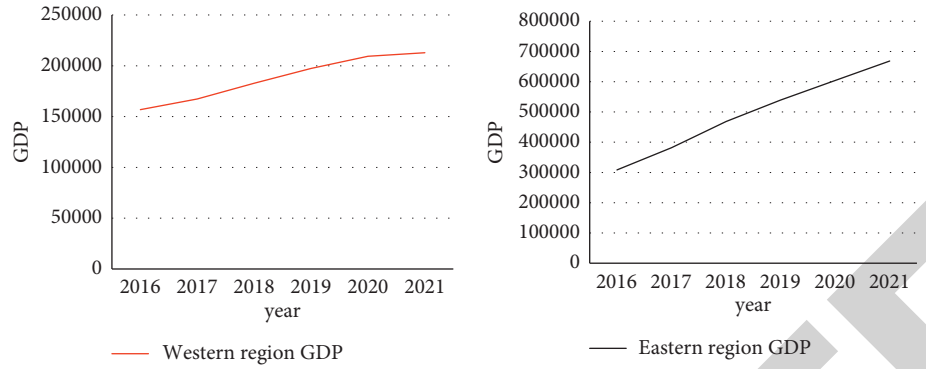

Figure 3: GDP in the East and West ($100 million).

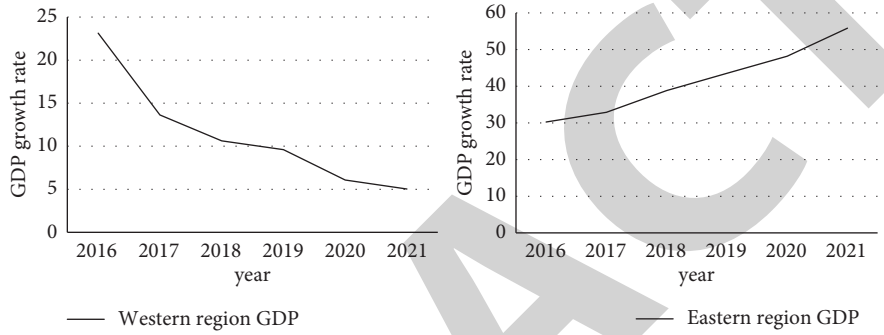

Figure 4: East-West GDP growth (%).

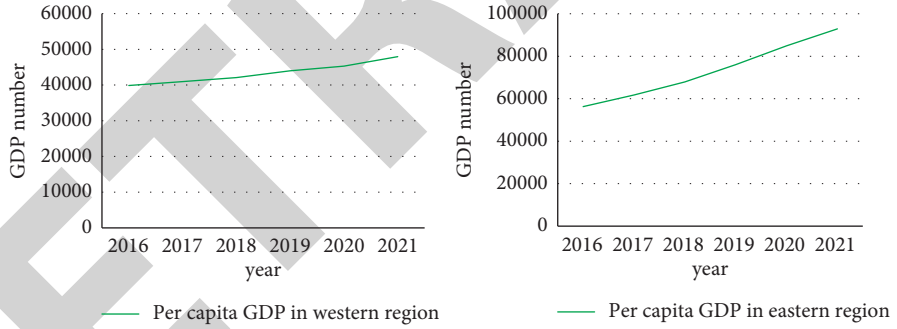

Figure 5: GDP per capita in the East and West (Yuan).

availability and operability of data, this paper takes the method of location quotient. The formula for calculating the location quotient is

$$Q = \frac{N_1/A_1}{N_0/A_0}. \tag{2}$$

Among them, N_1 represents regional specific industry income, N_0 represents regional industrial business income above scale, A_1 represents national specific industry business income, andA_0 represents national industrial business income above scale.

When $Q > 1$, we can think that the degree of industrial centralization in this region is higher, when $Q < 1$, the degree of industrial cluster is lower, and the value of location quotient can reflect the relative specialization level of an area.

Based on the formula of this location quotient, the location quotient of some provinces in Western China from 2016 to 2021 is calculated, as shown in Table 2.

Urbanization is characterized by a large number of people concentrated in cities and towns, so it was also called Population Urbanization in the early years. New urbanization is a new pattern of urbanization proposed on the basis of this imbalance and unsustainable development. The main focus is on the improvement of the quality of life, the optimization of living environment, and the vigorous construction of infrastructure. It is not only a population gathering, but also an industrial gathering and adequate supply of urban facilities [19]. In the process of urbanization, urbanization is the key initial stage. New urbanization can not only solve the problem of unbalanced and uncoordinated development, but also promote

Table 2: Location quotients of Western provinces, 2016–2021.

Years	2016	2017	2018	2019	2020	2021
Inner Mongolia	0.21	0.20	0.24	0.19	0.23	0.22
Xinjiang	0.17	0.19	0.17	0.20	0.18	0.16
Sichuan	0.82	0.80	0.91	0.86	0.81	0.88
Yunnan	0.19	0.20	0.22	0.18	0.19	0.26
Shaanxi	0.67	0.62	0.71	0.68	0.72	0.66

the overall development of urban and rural areas. It is the key channel to alleviate urban diseases. It is also an important road to achieve economic transformation and upgrading [20]. It fills part of the data with SPSS missing value analysis. It calculates the weight by the entropy method, and then calculates the comprehensive score of the new urbanization in 2016–2021. The results are shown in Table 3.

Among them, the entropy method is an objective weighting analysis method. It was originally derived from thermodynamic analysis and has since evolved into a measurement method for calculating weights. It mainly determines the index weight according to the information size of the objective value, which can effectively avoid subjective judgment, and is calculated as follows.

Because there may be a lot of data, there needs to be a standard, data standardization:

$$\begin{aligned} &X_{ij} - \min\{X_j\}, \\ &X'_{ij} = \max\{X_j\} - \min\{X_j\}. \end{aligned} \tag{3}$$

Once the data is standardized, it has to calculate the percentage of each indicator for each region:

$$p_{ij} = \frac{X'_{ij}}{\sum_{i=1}^{m} X'_{ij}}. \tag{4}$$

Then, the information entropy is calculated according to the proportion of the index:

$$e_j = -K \sum_{i=1}^{m} \left(p_{ij} \times \ln p_{ij}\right), \tag{5}$$

where i represents the sample and j represents the indicator. To some extent, the upper-form information entropy can be used as a scale of comparison for these data, but there may be a lot of errors, and then their weights can be calculated for comparison.

$$W_j = \frac{d_j}{\sum_{j=1}^{n} d_j}, \tag{6}$$

where d_j is derived from information entropy, i.e.,

$$d_j = 1 - e_j. \tag{7}$$

The e_j in formula refers to the information entropy of the j th index. The higher the score, the better the development.

$$Y_{ij} = W_j \times X_{ij}, \tag{8}$$

where i is the sample, j is the indicator, and X_{ij} is the jth indicator for the ith region.

Table 3: Comprehensive score of new urbanization from 2016 to 2021.

Years	2016	2017	2018	2019	2020	2021
Inner Mongolia	0.50	0.51	0.48	0.45	0.44	0.46
Xinjiang	0.46	0.44	0.45	0.48	0.46	0.45
Sichuan	0.44	0.43	0.42	0.43	0.45	0.44
Yunnan	0.31	0.29	0.27	0.25	0.24	0.25
Shaanxi	0.52	0.46	0.45	0.48	0.44	0.45

Then this paper studies the circle structure based on these theoretical studies. Among them, the circle structure theory mainly regards the city as a dynamic and developing entity with spatial form, with a certain population size (except agricultural population). They participate in various economic activities spatially and in the form of multiparty relations. There is a threadlike relationship between the levels of the circle, which is influenced by the spatial "distance decay law". The whole region has gradually evolved into a kind of aggregation and diffusion in one, the core area is mainly the regional pattern of built-up areas. As the circles continue to expand to the surrounding areas, the changes from urban to rural areas are also reflected in different aspects of life, entertainment, living environment, and so on, showing a very regular derivative change. The city and its surrounding areas are basically divided into three parts: inner circle, middle circle, and outer circle. The inner circle is the center of the city, the most densely populated area with the best economic development. It is dominated by the tertiary industry. The middle circle is a compromise between urban and rural areas, which is between the two, and it is dominated by the secondary industry. The outer circle is dominated by the primary industry, which is the gathering place of agriculture, animal husbandry, and ecological environment.In the primitive society, hunting and harvesting dominated, and tribes began to form. Because of the different living environment and resources, the tribes have different characteristic industries. In the agricultural era, small villages and towns appeared. The production mode of large machines has gradually replaced the handicraft workshops, and the production has achieved scale, showing the characteristics of high efficiency. Articles are abundant, industry-centric cities are gradually forming, populations are clustered in the same area, sharing the same infrastructure and social services. With the rapid development of these cities, the downstream industries of these industries develop simultaneously in the surrounding areas. Peripheral agriculture is supplied to the city, and products of the city are supplied to the periphery. With the development of economy, income disparities and other factors that meet human needs have caused cities to expand. The cost of living and production of enterprises in cities with secondary industry as the main factor increases. As industries move out to surrounding cities, the crowding out effect of cities appears, forming a middle circle. The central circle begins to develop the high value-added stage of the industrial chain, that is, the tertiary industry such as financial industry and service industry [21], as shown in Figure 6:

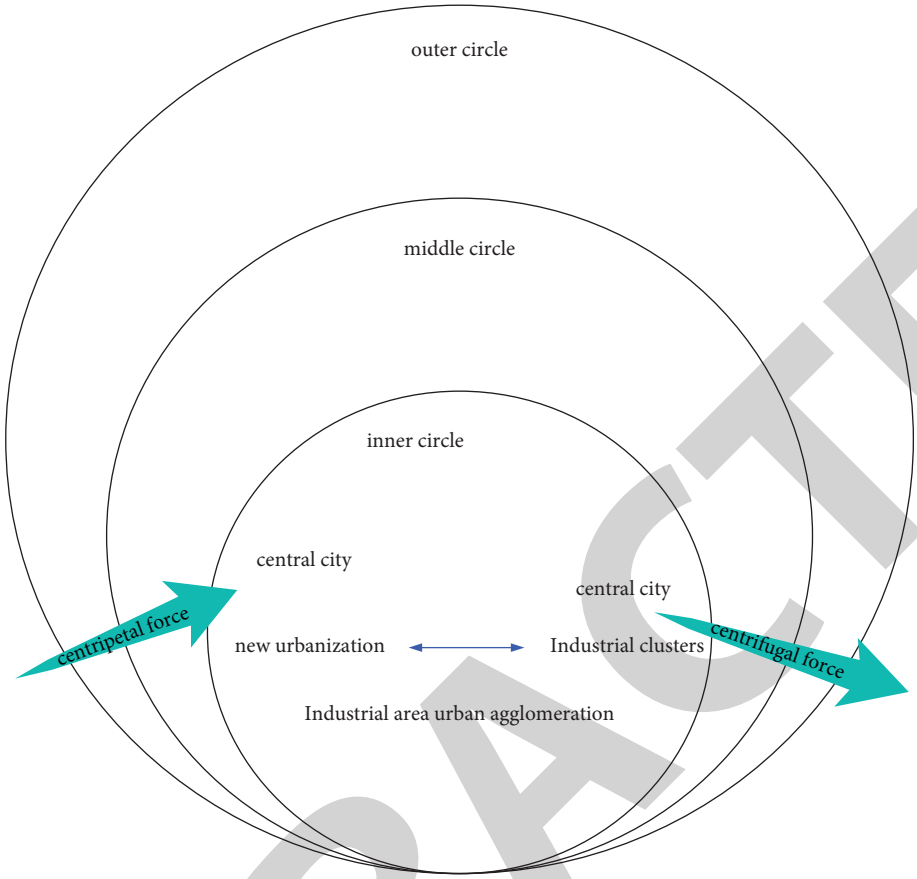

Figure 6: Structure.

According to the circle structure theory, the effect of cities on economic growth decreases with the increase of spatial distance, that is, the areas far away from cities are subject to more spatial restrictions, and the leading role of cities is less. In the process of mutual promotion and development between the new urbanization and industrial clusters in the western region, the industrial structure changes of the central cities in the western region will also synchronize with the development progress of the new urbanization. It is a problem that can be alleviated by "Belt and Road" to break the limit of space distance and promote the city to achieve economic development on a larger scale. It can promote good interaction between new urbanization and industrial clusters [22]. As a national initiative, Belt and Road focuses on creating an open market environment in the Inland areas, especially in the western regions. The western region has been lagging behind the eastern region for a long time due to natural characteristics, factor endowment and other factors, market size and demand are limited, economic growth is slow, and industrial structure transformation is lagging behind. It provides a good external environment for the industrial development and transformation in the western region. As China's bridgehead connecting the Middle East and Europe, the western region is easier to form industrial clusters and improve the competitiveness of industrial clusters in the face of large-scale international market demand and fierce international competition. The research shows that there are two formation modes, endogenous industrial cluster and exogenous industrial cluster. Endogenous reasons generally refer to the interest-driven industrial clusters, that is, first of all, with increasing market demand, key enterprises entering the market, and enterprises pursuing external and scale economy. Its gradually concentrated production of this growth-oriented industry is easier to drive other industries throughout the region, and it promotes related industries to gradually develop and cluster in a certain region. The comparative advantage between regions and historical factors together promote the formation of industrial clusters in a region. The exogenous factors mainly consider the industrial clusters formed after the guidance of government policies. So on the one hand, the "the Belt and Road" is an exogenous factor; on the other hand, the "the Belt and Road" initiative has opened up the international market [23].

4. Optimizing Economic Development Path of Western Region under Background of "Belt and Road"

4.1. Route Evaluation. Through analysis and evaluation path, it needs to build evaluation index, collect data, determine index weight, as well as calculate score. This paper determines the route results by sorting the values, as shown in Figure 7.

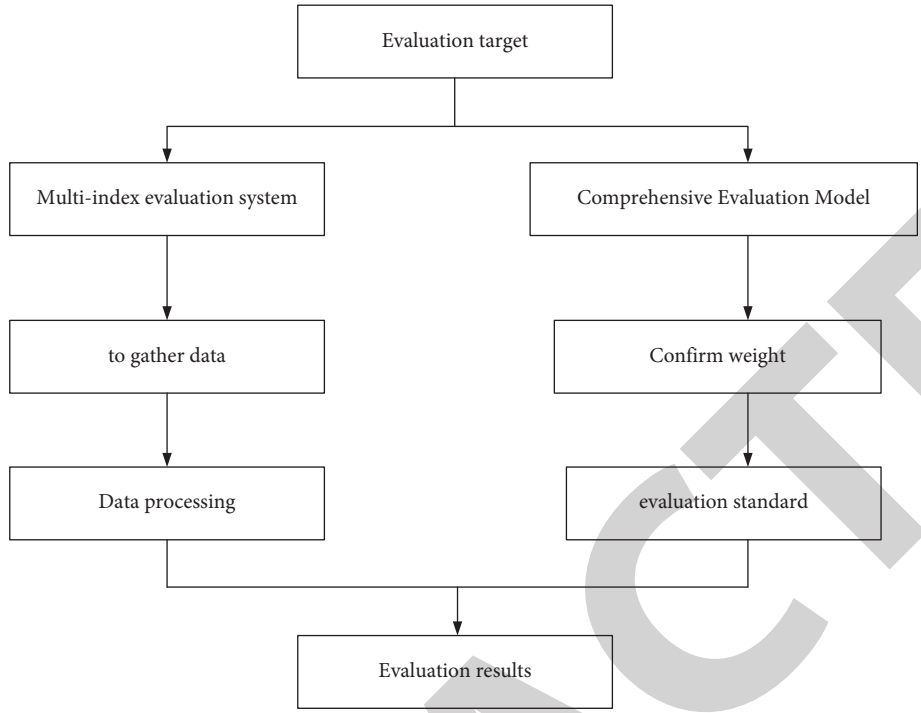

Figure 7: Evaluate route flowchart.

In this paper, the preprocessing of evaluation index is to make different dimensions of the index can be converted into the same type. The preprocessed indicators become the same type of data that can be added or multiplied. This paper mainly builds and analyses the models of Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi, and the model formulas are as follows:

$$\begin{aligned} \text{NUNMG} &= 0.35 + 0.41 \times \text{ICNMG} + u, \\ \text{NUXJ} &= 0.42 + 0.41 \times \text{ICXJ} + u, \\ \text{NUSC} &= 0.26 + 0.41 \times \text{ICSC} + u, \\ \text{NUYN} &= 0.28 + 0.41 \times \text{ICYN} + u, \\ \text{NUSX} &= 0.18 + 0.41 \times \text{ICSX} + u, \end{aligned} \tag{9}$$

where u refers to the random interference term.

Moreover, the consistency method adopted in this paper is to use linear transformation to change the inverse index into positive index, such as x_i as the inverse index and y_i as the transformed index:

$$y_i = \frac{1}{x_i}, \quad (i = 1, 2, 3, \ldots, n). \tag{10}$$

Before using the index system to make the evaluation, there is still an important basic work to be done, no dimension. In this paper, before converting the actual value of the index, the critical value of the corresponding index needs to be selected. It then uses the threshold value to compare with the actual value of the index, and uses such a linear transformation formula to transform the actual value of the index into the evaluation value. Generally, they are transformed by the following formulas:

$$y_i = \frac{\max x_i - x_i}{\max x_i - \min x_i}. \tag{11}$$

or

$$y_i = \frac{x_i - \min x_i}{\max x_i - \min x_i}. \tag{12}$$

The evaluation value decreases with the increase of the index value, which is used to reverse the dimensionalization of the index.

Among them, the mutual gravity between cities is an important factor to measure the degree of economic ties between cities, and it is also an important indicator of regional economic spatial development. In this paper, the gravitational model is used to select 10 major node cities and calculate the strength index of economic connection between the two places to further analyze the economic and spatial status of the Northwest region. The index of strength of spatial economic links is

$$F_{ij} = \frac{P_i Y_i + P_j Y_j}{D_{ij}^2}. \tag{13}$$

Type P is nonagricultural population (10,000 people), Y is nonagricultural value (100 million yuan), D_{ij} is the straight-line distance between the two places (kilometers), and F_{ij} is the strength of economic connection between cities. Some of the following city names are denoted by A, B, C, etc. Figure 8 shows the distance between the two cities.

As shown in Table 4, it is mainly the economic quality and attractiveness of some cities.

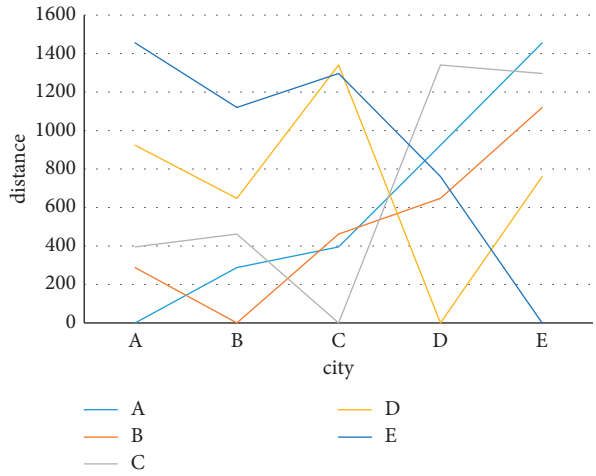

Figure 8: Distance map of two cities.

Table 4: Economic quality and gravitation.

City	A	B	C	D	E	F
Economic quality	684	152	97	150	386	453
Economic gravity	0.42	0.19	0.07	0.25	1.14	0.81

As shown in Figure 8 and Table 4, the distance, economic quality, and economic gravity between the two cities are clearly given, which can help with the subsequent experimental data.

4.2. Data on Economic Development Path Optimization. Based on the good interaction between new urbanization and industrial clusters, this paper establishes a multi-index evaluation model. It then simulates the experiment under the Internet of Things and analyzes the data. In addition, a questionnaire has been prepared, as shown in Table 5.

This paper conducts a simple questionnaire through the Internet. After about two or three weeks, the questionnaire is collected and the data is analyzed. A total of about 3,000 questionnaires were collected, of which 60% were in the East and only 40% were in the west. Figure 9 shows the specific data.

It can be seen that most people in the eastern and western regions think this method is feasible.

These data are then used for simulation experiments, and then compared with GDP and GDP per capita over previous years, as shown in Figures 10 and 11.

Based on the above data analysis, it can be seen that more than 75% of people think that the interactive development of new urbanization and industrial clusters is more than 50% feasible. In fact, the simulation analysis also shows that the development of this method in the next few years is very good, GDP continues to rise, and the growth rate is more than 15% higher than in previous years. And the annual growth is expanding. In the sixth year, it will reach more than 40%, which may be improved in the future, so that the western region can develop rapidly. Therefore, the interactive development method of new urbanization and industrial clusters can play a role in the development of the western region.

4.3. Recommendations. The western region, as the core area of "Belt and Road", is a representative region in China's inland open economy. It is an important area for China to achieve economic connectivity and road interconnection in the Middle East. It is the most important part to undertake industrial transfer in the eastern region. In order to successfully complete the 13th Five-Year Plan and realize industrialization and urban-rural integration, the development of the western region should be supported by the "Belt and Road" strategy and policy. It actively promotes the good interaction between new urbanization and industrial clusters and creates a perfect external environment. This paper will elaborate policy recommendations and strategies from the following aspects.

4.3.1. Enhancing the Promotion of New Urbanization by Industrial Clusters in the West. By adjusting the industrial structure, it can promote industrial transformation and upgrading. The industrial structure in the western region is mainly secondary industry, the proportion of primary industry is still large, and the tertiary industry is developing slowly. Traditional industries are mainly extensive. It mainly depends on the excessive consumption of resources, low-cost labor force, and so on to promote economic development. With the progress of society and the increase of labor costs, the country has joined the global economic division of labor system. The extensive economy has been hampering the development of the western region's economy. By vigorously developing strategic emerging industries, they will transform to tertiary industry on the basis of their unique industrial base and resource advantages in the western region. It takes high-tech and other high-output, high-quality, high value-added development models as the core. On the one hand, it can attract enterprise clusters and solve the employment problems in the process of new urbanization. On the other hand, it can speed up industrial transformation and promote rapid economic growth.

4.3.2. Enhancing the Promotion of New Urbanization to Industrial Clusters in the West. It takes urban agglomerations as its carrier and rationally arranges the hierarchy of cities and towns. In the layout of urban group planning, there is no close connection between cities, and there is a phenomenon of faults. Radiation-driven effect of central cities is not obvious. Therefore, the government should rationally arrange the hierarchy of cities and towns with urban clusters as its carrier. First, it needs to clarify the central and surrounding cities. Through the study of the geographic location and surrounding environment of the central city, it can rationally plan the city functions and build a characteristic city. Secondly, considering the relationship between the central cities, it maximizes the coordination mechanism between cities and rationally arranges the urban hierarchy. On the one hand, the construction of urban

Table 5: Questionnaire.

1. How feasible do you think the interactive development of new urbanization and industrial clusters is in the western region?
A. 75–100% B. 50–75% C. 25–50% D. 0–25%
2. If the western region adopts the interactive development method of new urbanization and industrial clusters, how much will the GDP of the western region increase in the next few years?
The first year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The second year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The third year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The fourth year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The fifth year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
3. If the western region adopts the interactive development method of new urbanization and industrial clusters, how much will the per capita GDP of the western region increase in the next few years?
The first year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The second year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The third year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The fourth year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
The fifth year: A. 100–200% B. 75–100% C. 50–75% D. 25–50% E. 0–25%
4. Are you from the eastern region or the western region?
A. Eastern region B. Western region

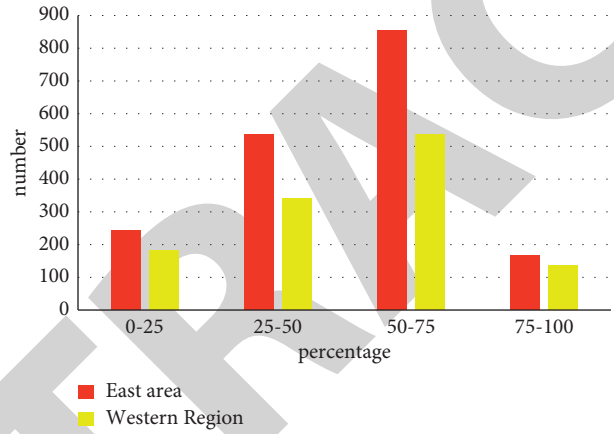

Figure 9: Data maps considered viable in the East and West.

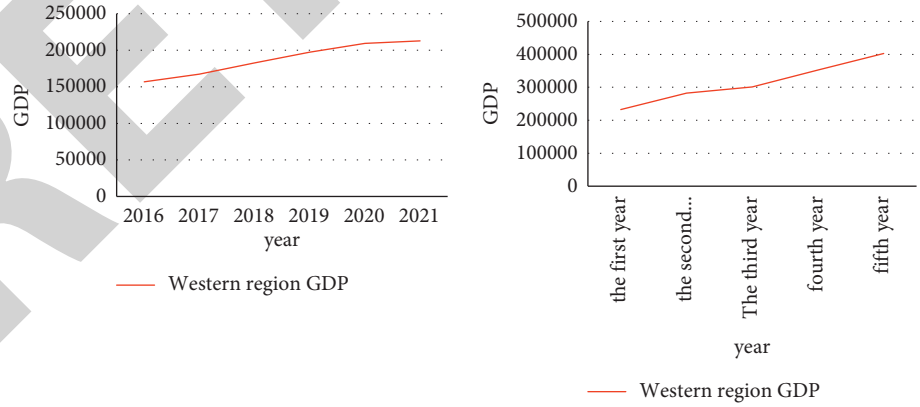

Figure 10: Comparison of GDP in West China.

agglomerations can promote the links between industries, achieve regional coordinated development, lengthen the industrial chain, and promote industrial clusters. On the other hand, the establishment of urban hierarchy can optimize the industrial layout and realize industrial ladder development. With the government as the leading role and the market mechanism as the guide, it will increase the support of infrastructure construction and public service platform. It uses rich information exchange, the wisdom and technology of colleges and universities to attract enterprises to enter. It creates more employment opportunities and realizes economic prosperity.

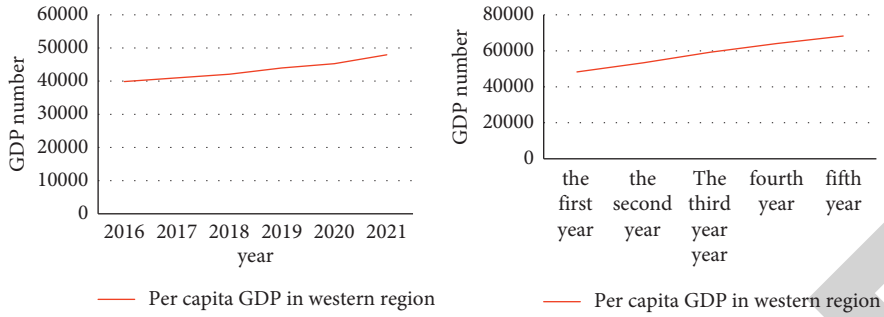

Figure 11: A comparison of GDP per capita in the western region.

5. Discussion

This paper mainly takes the gross GDP and per capita GDP of the previous few years in the western region as the initial comparison, and then conducts a large-scale survey through the questionnaire method to analyze the questionnaire data. Then this paper builds models in Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi. The general situation and growth rate of gross and per capita GDP in Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi in the next few years are simulated and analyzed by the Intelligent Internet of Things. This paper then compares with the initial quantity to compare the advantages, disadvantages, and feasibility of the economic path of the interactive development of industrial clusters and new urbanization. However, there are still some deficiencies in this paper. This paper mainly analyses the gross and per capita GDP of Inner Mongolia, Xinjiang, Sichuan, Yunnan, and Shaanxi from 2016 to 2021. This may lead to some errors in model building and data analysis. In addition, the questions in the questionnaire can be more detailed. There are also data based on the Internet of Things, which may be different from the actual, but the reliability is still high.

6. Conclusion

This paper analyses the difference between the gross and per capita GDP in the East and West. The gross and per capita GDP in the West are significantly lower than that in the East in 2016–2021. This paper then simulates the development of the western region based on the interactive development of industrial clusters and new urbanization through the Internet of Things. The experimental data show that in this way, the gross and per capita GDP of the western region will increase by more than 30% annually in the next few years. This is still the first simulation data, and may increase by more than 50% in many years. Moreover, in the future, there will be more and more research on the optimization of economic development path in the western region under the background of "Belt and Road", and the western region will also develop better and better.

Data Availability

No data were used to support this study.

Conflicts of Interest

The author declares that there are no conflicts of interest regarding the publication of this article.

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