Analysis on the Influencing Factors of Undertaking Industrial Transfer in Western Region

Tiaoyan Hui\textsuperscript{a}, Yaqin Wang\textsuperscript{b,*}

School of Economics and Management, Xidian University, Xi’an 710071, China

\textsuperscript{a}14171012@qq.com, \textsuperscript{b,*}18894030837@163.com

Abstract

The ability to undertake industries in the western region is affected by a variety of factors. This article takes eleven provinces and cities in the western region as the object and uses panel data from 2006 to 2017 to establish a model from the level of economic development, market potential, production factor costs, and infrastructure construction. Analyze the impact of 10 important factors on foreign investment in the western region in terms of scientific and technological research and development capabilities, and environmental carrying capacity. The research results show that the consumption level of residents, the volume of goods turnover, the number of three patent applications and the land purchase cost are all at the 0.1 level, which have a significant positive impact on the undertaking of industries in the western region. Residents’ per capita disposable income and railway operating mileage have negative effects. Among them, railway operating mileage and urban residents’ per capita disposable income are significant at 0.5 level; above scale industrial cost expense profit margin, the GDP growth rate, the industrial pollution control completes the investment and so on influence effect is not remarkable.

Keywords

Western Regions; Industry Acceptability; Influencing Factors; Panel Data.

1. Research Background

In the wave of economic globalization, industrial transfer has become an important means of economic restructuring, upgrading of industrial structure, re-allocation of resources, and re-arrangement of spatial industries in various countries. Since the reform and opening up, the eastern region of my country has taken advantage of government policies and location advantages, and leveraged the power of developed countries to develop the economy in labor-intensive industries such as manufacturing and processing industries, attracting a large number of foreign industries to invest in China and introducing many advanced technologies. At the same time, it also solved the employment problem. However, with the rapid development of the economy, the eastern region has experienced major problems such as traffic congestion, rising land prices, shortage of resources and insufficient supply, and environmental degradation. To solve these problems, industrial transfer is the most important way. The western region is the first choice, coupled with the release of the strategic guidelines of the "Thirteenth Five-Year Plan for Western Development" and the support of the "One Belt One Road" policy, the development of industrial transfer in the western region is an inevitable trend for future industrial transfer.

The western region has restricted the development of regional economy due to its geographical location and climatic conditions. Moreover, the economy has always been at a middle-to-lower level, and there are widespread problems such as a single lagging industrial structure, overcapacity in resource-based industries, backward science and technology, and a shortage of
financial resources. However, the western region also has the advantages of abundant resources, low land prices, sufficient labor, and abundant resources. It can undertake the intensive processing industries in the eastern region, optimize the industrial layout, and adjust the industrial structure to promote the economic development of the western region. Therefore, in order to select the most suitable industrial undertaking site and ensure the healthy, coordinated and sustainable development of the regional economy, we must analyze the industrial undertaking situation in the western region, find out the important factors that affect the industrial undertaking capacity, and formulate a reasonable and optimal Undertake the program.

2. Literature Review

Industrial transfer, as an important way for the western region to improve the level of economic development, expand the scale of industry, adjust the industrial structure, narrow the gap between the rich and the poor, and achieve industrial upgrading in the eastern region, has received great attention from the government and scholars in recent years. A large number of scholars have conducted researches on it carrying capacity and influencing factors. Here are three categories.

The first category analyzes the core elements that affect the ability of industry to undertake from different perspectives. Yong Wu (2012) believes that gross domestic product is the most important factor affecting the transfer of interregional industries in the central and western regions. The scale of domestic and foreign markets, the level of undertaking infrastructure and industrial undertaking policies are also having an important impact on industrial undertaking, and compared with foreign markets, transferring companies pay more attention to the domestic market [1]. Guotao Zhai and others (2009) believe that the western region should vigorously cultivate vocational and technical talents, increase the degree of marketization, and expand the scale of infrastructure construction. We should actively undertake the transfer of industries from the east, realize the upgrading of economic growth mode and industrial structure, and promote the sustained and rapid development of regional economy [2]. Gang Fu (2017) studied the efficiency of undertaking industrial transfer in 10 eastern provinces and Heilongjiang Province from 2005 to 2014 based on the perspective of input and output. He believes that the overall economic development of Heilongjiang Province, import and export trade, and logistics are the three major determinants of the efficiency of its industrial transfer. The determinants of the efficiency of the industrial transfer of the ten eastern provinces and cities in my country are the overall economic status, trade volume, and government behavior. Efficiency [3]. Dandan Feng (2017) evaluated the industrial undertaking capacity of Hebei Province and the other five provinces. He believes that developed regions should consider the market potential of undertaking, the soft investment environment, industrial supporting facilities, technological innovation level, and financial services when transferring industries. Taxation and other related policy preferences [4]. Chun Chen et al. (2017) analyzed the factors influencing the industrial undertaking capacity of the six central provinces and found that financial support, labor costs, and technological innovation play a more prominent role in regional industrial undertaking, while economic scale, human resources, and agglomeration effects the impact on regional industry acceptance is relatively small [5]. Kehui Yu (2018) selected relevant indicators from the six aspects of technological innovation capacity, cost factors, market potential factors, industrial supporting capacity, regional development level and environmental carrying capacity based on the actual situation of the Beijing-Tianjin-Hebei region. The effect of industrial transfer is analyzed [6].

The second category is to discuss the construction of an evaluation system for the industrial undertaking capacity of various provinces (regions). For example, Baowei Zhan et al. (2006)
proposed that the acceptance of industrial transfer is the attraction of the transfer industry, the ability to identify the transfer industry, the support of the transfer industry, and the integration to enhance the development of the industry. Integrated system of force. Liping Tian (2016) based on the perspective of the coordinated development of the Beijing-Tianjin-Hebei region, using the principal component analysis method to study the industrial undertaking capacity of 11 cities in Hebei Province. He believes that the ability to accept industries in the south and east is significantly better than that in the north and west. Moreover, in terms of the improvement of industrial undertaking capacity, we should comprehensively plan to develop the overall industrial undertaking capacity in four aspects [7]. Jingmei Xue and Yinzhen Gao (2017) used the entropy fuzzy matter-element method to evaluate the industrial undertaking capacity of Hebei Province and its 11 prefecture-level cities, and proposed that the industrial undertaking capacity of Hebei Province showed signs of market potential, technological innovation capacity, and industrial support capacity. Continuous and stable improvement trend, but the ecological environment carrying capacity shows a trend of first increasing and then decreasing [8]. Hongbo Zhao et al. (2017) comprehensively used the minimum relative information entropy combination weighting method and multi-factor comprehensive evaluation method, etc., from the two aspects of the transfer of industries and the undertaking of the industry to carry out the ability of various cities in Henan Province from the perspective of time and space. Among them, the industrial development capabilities of central Henan and western Henan have been strong, and the industrial attractiveness of northern Henan has improved significantly and surpassed southern Henan; the ability of comprehensive information processing in eastern Henan has gradually increased [9]. Keyun Zhang et al. (2017) comprehensively applied the super-efficiency DEA method and principal component analysis method to evaluate the function transfer capacity of Tianjin and Hebei cities under ecological constraints from the two aspects of input and output. It found that some cities with better industrial foundations and market conditions in the Beijing-Tianjin-Hebei region (excluding Beijing) have problems such as environmental pollution and ecological destruction, which restrict their ability to undertake [10].

The third category is to conduct quantitative analysis from the perspective of specific industries. Guoqing Lu (2013) takes the logistics industry in Guangxi under the background of industrial transfer as the research object, uses factor analysis and fuzzy matter-element to discuss the development trend of Guangxi’s logistics capabilities from 2004 to 2013, and proposes measures to build logistics networks and improve the information level of logistics enterprises. Recommendation [11]. Chuan Liu and Xiaoming Song (2014) combined the inherent characteristics of the high-tech industry to construct an evaluation index system including industry acceptance carrier, acceptance technology acceptance cost and acceptance environment. Analyzed the ability of the central and western regions to undertake the transfer of high-tech industries, and put forward suggestions to improve the overall ability of industry to undertake [12]. Chao Dai and Kang Lu (2017) took Chongqing as object, studied the advantages of undertaking electronic information transfer and summarized the development model of the electronic information industry. They discussed the main factors affecting the development of the electronic information industry and put forward suggestions for undertaking industry improvement, and finally formed the results of product consultation, which providing reference for decision-making by local governments [13]. Ying Ma and Shuzhen Chu (2018) discussed the transfer capacity of the pharmaceutical industry in the central and western regions of my country, and promoted the adjustment and upgrading of the pharmaceutical industry structure. The study found that Henan, Hubei, Sichuan, Hunan, Anhui, and Jiangxi provinces have strong ability to undertake the transfer of the pharmaceutical industry. Analysis: The central and western regions give full play to their comparative
advantages in the process of promoting industrial transfer and focus on regional construction [14].

In a word, the current research focus on industrial acceptability is to establish an evaluation index system to make a quantitative analysis of regional industrial acceptability. Using principal component analysis, factor analysis, analytic hierarchy process, multi-objective comprehensive evaluation methods to conduct empirical research on the ability of regional industry to undertake. There are relatively few studies on the identification or differentiation of evaluation index systems. In order to have a deeper understanding of the degree of influence of various factors in the industry's ability to undertake, it is necessary to conduct a scientific quantitative analysis of its constituent elements. To this end, this article takes the western region as the object and uses Panel data analysis methodology to identify the factors that influence the industrial carrying capacity, and clarifies the key influencing factors and the degree of influence, to provide support for the strategic decision-making of the regional industry carrying capacity improvement.

3. The Construction of an Index System for Factors Affecting Industrial Undertaking Capacity

Industrial transfer is a major measure to promote the economic development of the western region, and it is an important means for achieving uniform development of the regional economy in our country. In order to avoid unreasonable development in the process of undertaking industrial transfer, we must scientifically and reasonably select factors that affect the ability of industrial undertaking.

At present, different scholars have analyzed from different perspectives, including market, cost, production factors, innovation and environment. In the past, scholars did not consider environmental factors in the analysis of industry acceptance. In sustainable development, the environment is not only an endogenous variable of economic development, but also a rigid constraint on the scale and speed of economic development. The western region must undertake the industries of the eastern and coastal regions under the preconditions of low-carbon economy and a "resource constraints and environmental friendliness", as far as possible to achieve economic growth while achieving coordinated development of the economy and the environment. Moreover, in the "Thirteenth Five-Year Plan for the Western Development" strategic guidelines, it mentioned that it is necessary to grasp the two key points of infrastructure and ecological protection, and to build a national ecological security barrier to ensure economic health and coordinated and sustainable development. In addition, in recent years, due to the rapid development of the Internet industry and e-commerce companies, the logistics industry has also risen rapidly, which has had a considerable impact on the economic development of various regions. Therefore, this article also considers the impact of logistics costs.

Therefore, under the principle of objective, comprehensive, and quantitative analysis, this article introduces environmental constraint indicators, and designs the following analysis indicator system for the factors affecting industrial acceptance in the western region. Including: economic development level, market potential, cost of production factors, infrastructure construction, scientific and technological research and development capabilities, and environmental carrying capacity.

The level of economic development. The level of economic development of a region is an important factor to measure the ability of the region to undertake industries. Studies have shown that industrial transfer occurs between developed and underdeveloped regions. Therefore, the level of regional economic development is a prerequisite for whether a region can attract the attention of industries outside the region. The higher the level of economic
development, the greater the attractiveness, and the more it can attract the attention of the industrial transfer area.

Market potential. Market potential is an important factor for measuring whether a region's economy can develop vigorously and in a coordinated manner. It is also the prerequisite and basis for industrial development and industrial transfer. The large market potential can attract new enterprises to enter the market continuously and expand the market scale. Companies will focus on this issue when looking for new development space.

Cost of production factors. Factors of production refer to the various resources needed for social production and business activities, including various natural resources, land, labor, technology, and capital. The production factor is the basic element of various business activities, and it determines whether all industrial activities complete smoothly. Therefore, the abundance of production factors is also an important factor in industrial transfer. For undertakings with abundant resources, the attractiveness of industrial transfer may be relatively greater. Because the price of production factors usually affects the profit and development of enterprises to a certain extent, and affect the price by the abundance of production factors.

Infrastructure. Regional infrastructure construction is the basic condition for the survival and development of enterprises, and sound infrastructure construction can enable enterprises to carry out operations smoothly. Generally, large-scale processing enterprises need to have convenient transportation facilities, which can not only carry out activities smoothly, but also reduce the transportation cost of the enterprise. In the western region, due to its geographical location and topography, the construction of transportation facilities in many areas is not perfect.

Technology research and development capabilities. Scientific research and development determines the long-term development capability of an industry. Scientific research and development capability refers to obtaining certain results and conclusions from scientific research and experiments, or introducing advanced technology from outside, creating and designing new products, establishing new processes and systems, and making substantial improvements to the traditional industries of the enterprise, to realize the long-term development of the enterprise. Moreover, technological innovation can reduce the production cost of the industry, increase the income of enterprises, adjust the industrial structure and promote industrial upgrading. In a word, the scientific and technological research and development capabilities of the western region are weaker than eastern and coastal regions, while the eastern and coastal regions have advanced in electronic technology and software industries. Therefore, when undertaking technology-based industries in the eastern and coastal regions, the scientific and technological research and development capabilities of the western region will be the decisive factor.

Environmental carrying capacity. Environmental carrying capacity refers to the carrying capacity of a region in terms of resources and environment shown on the carrier of industrial transfer. It relates to the long-term sustainable development of the transferred industry. The environmental carrying capacity of an area is limited, and the production and operation activities of an enterprise must be within the limit of it carrying capacity. When the impact of the social and economic activities of an enterprise on the environment exceeds the limit that the environment can support, the region will face severe environmental problems and hinder the sustainable development of the enterprise. In terms of environmental pollution, if it manages in time, then the environmental crisis will not come so quickly, and enterprises can achieve sustainable development. Therefore, the environmental carrying capacity is an important factor in the transfer of industries.
<table>
<thead>
<tr>
<th>First-level index</th>
<th>Indicator variable</th>
<th>Index explanation</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>level of economic development</td>
<td>Economic benefit</td>
<td>Profit margins on industrial costs and costs above scale</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Economic development rate</td>
<td>GDP growth rate</td>
<td>+</td>
</tr>
<tr>
<td>Market potential</td>
<td>Disposable income per capita</td>
<td>Per capita disposable income of urban residents</td>
<td>+</td>
</tr>
<tr>
<td>Consumption level</td>
<td>Resident consumption level</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Production factor cost</td>
<td>Land cost</td>
<td>Land purchase cost</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cargo turnover</td>
<td>+</td>
</tr>
<tr>
<td>infrastructure</td>
<td>Transport infrastructure</td>
<td>Railway operating mileage</td>
<td>+</td>
</tr>
<tr>
<td>Technology research and development capabilities</td>
<td>Technological strength</td>
<td>The proportion of science and technology undertakings in fiscal expenditures in the local budget</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Scientific research and innovation ability</td>
<td>Number of three types of patent applications granted</td>
<td>+</td>
</tr>
<tr>
<td>Environmental carrying capacity</td>
<td>Environmental governance capability</td>
<td>Industrial pollution control completed investment</td>
<td>+</td>
</tr>
</tbody>
</table>

### 4. Empirical Analysis of the Factors Affecting Industrial Undertaking

#### 4.1. Analysis of Explained Variables

For a long time, my country's industrial transfer has been advancing gradually, forming a situation in which international industries transfer to the eastern and coastal economic regions of my country, and the eastern and coastal economic regions transfer to the central and western regions. In particular, the eastern and coastal areas have always been the main force in attracting foreign investment, and foreign direct investment maintain at more than 80%. However, due to the rapid economic development, the prices of production factors have continued to rise, the population has increased sharply, resources are tight, and the environmental carrying capacity has declined. Some industries need to transfer outwards. The implementation of the Western Development Strategy and the promulgation of the State Council's "Guiding Opinions on Undertaking Industrial Transfer in the Central and Western Regions" have led to a rapid expansion of the industrial undertaking scale in the western region. Promoting the accelerated transfer of industries in the eastern coastal areas to the central and western regions has become my country's policy orientation for promoting coordinated regional development. Industrial transfer is to realize the cross-regional flow and recombination of capital, technology, labor and other production factors through direct investment of enterprises, forming new production capacity and industrial scale. The net inflow of FDI (foreign direct investment) in the western region increased from 4.9% in 2006 to 9.97% in 2011, 8.9% in 2012, 6.85% in 2013, and 6.2% in 2017. The actual use of foreign capital in 2017. The amount is 33.57 billion U.S. dollars, so foreign investment is still the main theme of undertaking industrial transfer in the western region. In this paper, the amount of foreign capital used (funds in place) is used as an explained variable to characterize the capacity of inter-regional industries, and the influencing factors are discussed. The amount of foreign capital is converted according to the exchange rate of the current year.

From 2006 to 2017, the actual amount of foreign investment in the western region increased from US$594,894 million to US$33.53.54 million, with an average annual growth rate of 18.81%. Among them, Sichuan and Chongqing are in the first echelon, and the total amount of foreign investment introduced by the two accounts for about 57.1% of the total amount of western
China. Among them, Chongqing has achieved remarkable results in attracting investment. In 2009, the amount of foreign investment successfully surpassed Sichuan, and has been ranked first in the western region since then; Inner Mongolia and Shaanxi are the second echelon, and the total amount of foreign investment in 2006-2017 is between US$2.6-9.1 billion; Guangxi, Guizhou, and Yunnan are the third echelon, while other provinces have relatively little foreign investment.

4.2. Model Establishment

People usually use cross-sectional data as observations and use simple regression analysis techniques to analyze influencing factors. The simple cross-sectional regression analysis method ignores the possible heterogeneity in time, which leads to deviations in the analysis results. The spatial measurement model based on panel data is effective for solving the heterogeneity of space and time.

Based on this, this article takes the western region as the object and uses Eviews7.0 software to study the factors that affect the industry’s ability to take over by using the spatial panel data method. Among them, the amount of foreign capital actually utilized is the explanatory variable, using 10 indicators defined in the index system of the influencing factors of industrial acceptance capacity as explanatory variables, and the data of 11 western provinces and cities from 2006 to 2017 as samples to establish a panel data model. Among them, due to the small scale of industry undertaking in Tibet and the lack of statistical data for many research variables, no research conduct on this.

Panel data models usually divide into constant coefficient models without individual influence, variable coefficient models and variable intercept models. We use the F test, which shows that the variable intercept model. In order to compare the fixed-effects model and the random-effects model, conducting the hausman test. The results showed that the null hypothesis rejected, that is, the fixed-effects model was different from the random-effects model. Regions affect the industrial acceptance capacity of the western region, and there are obvious regional differences. The model form is as follows:

$$Y_{it} = \alpha_0 + \alpha_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_k X_{kit} + \mu_t$$

Among them, i=1,2, ..., N(N=11), which means the cross-sectional individual, that is, the western provinces and cities that undertake industrial transfer; t=1,2, ..., T(T=7), which means the time period is from 2006 By 2017. $\alpha$ represents the mean intercept term; represents the individual intercept term of the section, that is, the deviation of the section members from the mean $\alpha$, which reflects the characteristics of the actual utilization of domestic capital in each province; represents the error term.

4.3. Empirical Analysis

4.3.1. Establishment of Panel Data Model

This article analyzes eleven western provinces (Inner Mongolia, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang) and cities. The data comes from the 2006-2017 China Statistical Yearbook and various provinces. Statistical Yearbook. Use EViews software to perform fixed-effect variable intercept regression analysis on the above model, and the results are in the table below. The model F value is 51.27498, the significance level is 0 (<0.05), and the model fitting degree is 0.902332, indicating that the model fitting degree is high, the regression equation is significant, and the model can be established at the 0.05 significance level.
### Table 2. Panel data regression analysis results of fixed-effect variable-intercept model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>178819.1</td>
<td>105978.8</td>
<td>1.687309</td>
<td>0.0944</td>
</tr>
<tr>
<td>The profit margin of industrial costs and expenses above designated size</td>
<td>65.42861</td>
<td>3599.737</td>
<td>0.018176</td>
<td>0.9855</td>
</tr>
<tr>
<td>GDP growth rate</td>
<td>322490.7</td>
<td>198624.9</td>
<td>1.623617</td>
<td>0.1073</td>
</tr>
<tr>
<td>Per capita disposable income of urban residents</td>
<td>-31.75113</td>
<td>9.722308</td>
<td>-0.018176</td>
<td>0.9855</td>
</tr>
<tr>
<td>Resident consumption level</td>
<td>51.83153</td>
<td>13.53367</td>
<td>0.018176</td>
<td>0.9855</td>
</tr>
<tr>
<td>Land purchase cost</td>
<td>269.7225</td>
<td>150.0572</td>
<td>1.797464</td>
<td>0.0750</td>
</tr>
<tr>
<td>Cargo turnover</td>
<td>55.69612</td>
<td>23.44571</td>
<td>2.375536</td>
<td>0.0192</td>
</tr>
<tr>
<td>The ratio of expenditures for science and technology under the local fiscal budget to fiscal expenditures</td>
<td>-78170.66</td>
<td>51129.80</td>
<td>-1.528867</td>
<td>0.1291</td>
</tr>
<tr>
<td>Number of three types of patent applications granted</td>
<td>11.36713</td>
<td>1.987060</td>
<td>5.720580</td>
<td>0.0000</td>
</tr>
<tr>
<td>Railway operating mileage</td>
<td>-384328.0</td>
<td>196300.6</td>
<td>-1.957855</td>
<td>0.0528</td>
</tr>
<tr>
<td>Industrial pollution control completed investment</td>
<td>0.099714</td>
<td>0.129497</td>
<td>0.770012</td>
<td>0.4429</td>
</tr>
</tbody>
</table>

Cross-section fixed (dummy variables)

| R-squared  | 0.902332 | Mean dependent var | 226747.1 |
| Adjusted R-squared | 0.884734 | S.D. dependent var | 307324.2 |
| S.E. of regression | 104339.3 | Akaike info criterion | 26.09359 |
| Sum squared resid  | 1.21E+12 | Schwarz criterion | 26.55222 |
| Log likelihood | -1701.177 | Hannan-Quinn criter. | 26.27996 |
| F-statistic | 51.27498 | Durbin-Watson stat | 0.648270 |
|_prob(F-statistic) | 0.000000 |

4.3.2. Analysis of Research Results

The results of the study show that 6 of the above 10 explanatory variables have a significant impact on the western region’s industrial carrying capacity (under the 10% significance level). Regarding the level of economic development, the profit rate of industrial costs and expenses and the growth rate of GDP for industries above designated size have a positive impact on industrial transfer, but the effect is not significant. Regarding market potential, urban residents’ per capita disposable income and resident consumption levels both have a significant impact on the western region’s industrial undertaking capacity at the level of 0.05, indicating that the two are important factors affecting industrial transfer. Regarding the cost of production factors, land purchase costs and goods turnover are all at the level of 0.10, which have a significant positive impact on the industrial acceptance capacity of the western region, but the impact of land purchase costs is opposite to the predicted direction. Regarding scientific and technological research and development capabilities, the number of three patent applications granted at the 0.5 level has a significant positive impact on industrial transfer, while the ratio of scientific and technological expenditure to fiscal expenditure in the local fiscal budget has no significant impact on industrial transfer. Regarding the environmental carrying capacity, the investment in industrial pollution control has a positive impact on the undertaking industries in the western region, but the impact is small.

5. Conclusion

Various factors affect the industrial undertaking capacity in the western region. The research results show that the consumption level of residents, the volume of goods turnover, the number of three patent applications and the land purchase cost are all at the level of 0.10, which have a significant positive impact on the undertaking of industries in the western region. The ratio of expenditures on science and technology in the local fiscal budget to fiscal expenditures, urban areas Residents’ per capita disposable income and railway operating mileage have negative effects. Among them, railway operating mileage and urban residents’ per capita disposable
income are significant at the level of 0.5; the profit margin of industrial costs and expenses, GDP growth rate, and industrial pollution control for industries above designated size. The impact of the completion of investment is not significant.

Regarding the level of economic development, the profit rate of industrial costs and expenses and the growth rate of GDP for industries above designated size have a positive impact on industrial transfer, but the effect is not significant. It may be because processing and technological transfer industries pay more attention to other factors. Because the western region has only begun to carry out large-scale development in recent years, the level of economic development is not very high, so the effect is not outstanding.

Regarding the market potential, urban residents’ per capita disposable income and residents’ consumption levels are both at the 0.05 level, which has a significant impact on the industry's ability to undertake industries in the western region. In recent years, under the guidance of national policies and guidelines, economic development in the western region has achieved certain results. People’s living standards have gradually improved, and their material and spiritual needs have been greatly improved. Therefore, the consumption level of residents is getting higher and higher, and the market potential is increasing, which has a great role in promoting industrial transfer. However, the direction of influence on the per capita disposable income of urban residents is opposite to predict, and further research is important.

Regarding the cost of production factors, the cost of land purchase and the turnover of goods are all at the level of 0.10, which have a significant positive impact on the industrial capacity of the western region. In recent years, some labor-intensive and resource-intensive industries in the eastern and coastal regions have shifted to the western region, and the transfer of industries has driven the growth of demand for factors. Therefore, the land cost is in the opposite direction of the predicted impact. Goods turnover is significant at the 0.05 level, indicating that logistics costs have a relatively large influence on industrial transfer, and various industries will involve logistics, so they have a certain boost to the development of enterprises.

Regarding scientific and technological research and development capabilities, the number of authorized patent applications for the three types of patents has a significant positive impact on industrial transfer at a level of 0.5. The number of three kinds of patent applications granted can generally represent the scientific research and innovation ability of a region. A large number of patent applications grants a strong scientific research ability and a high level of science and technology. Therefore, in the process of industrial transfer, the region's scientific and technological research and development capabilities will affect the efficiency of industrial transfer, and it is an important factor in attracting industrial transfer. The impact of the ratio of expenditures on science and technology to fiscal expenditures in the local fiscal budget is negative, contrary to the predicted impact. The western region wants to strengthen the development of science and technology research and development, so the investment in science and technology is relatively large, but the investment in other areas is relatively small, which leads to an imbalance in the structure of fiscal expenditure and affects the development of other areas.

Regarding the environmental carrying capacity, the investment in industrial pollution control has a positive impact on the undertaking industries in the western region, but the impact is small. The western region has not vigorously developed the economy and has not destroyed environmental resource. The impact may be relatively small. However, environmental carrying capacity is the prerequisite and foundation for economic development. If we want economic health, coordinated and sustainable development, we must attach great importance to the protection of environmental resources and take preventive measures in advance.

To sum up, the ability to undertake industries is subject to many factors and needs to consider in all aspects. First, it is necessary to improve the quality of life of local residents, raise their
consumption levels, stimulate consumption, and further stimulate economic growth. Secondly, comprehensively improve the level of education, encourage independent innovation, actively enhance technological innovation capabilities, build technological intelligent industrial parks, and attract foreign investment. Finally, actively innovate, introduce new management models, improve the infrastructure environment, and make transportation convenient.

Acknowledgments

Supported: Social Science Planning Fund Program of Shaanxi(2018D21); The Soft Science Research Program of Xi’an City(201911813RKX002SF006-3).

References