Research on the Relationship between the Development of Modern Service Industry and Employment--Analysis Based on the Employment Situation in Jinzhou

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ABSTRACT. The modern service industry is developing rapidly in my country as the "main force", combined with the development and transformation process of domestic and foreign service industries, analyze the relationship between service industry and employment, based on the statistical data of various yearbooks and economic census data in Jinzhou City, Liaoning Province, using the degree of structural deviation, Employment elasticity and comparative labor productivity to measure the relationship between modern service industry and employment. In the context of the party and the state actively calling for the development of modern service industries and supply-side structural reforms, relevant countermeasures and suggestions are put forward.

KEYWORDS: Modern service industry, Employment elasticity, Comparative labor productivity, Structural deviation

1. Introduction

The theory put forward by British economist CG Clark, as the per capita national income continues to increase, people's relative demand for agricultural products continues to decline, the relative demand for manufactured products rises first and then remains stable, while the demand for service products will continue to rise. As a result, the share of agricultural employment has dropped sharply, and the share of manufacturing employment has been synchronized with economic growth, but usually stabilizes when it approaches 40%, while the share of service employment has steadily increased[1].

Experts and scholars generally believe that the changes in China's employment structure follow Clark's conclusions. Since the report of the 15th National Congress of the Communist Party of China first proposed “modern service industry” in 1997, the development of modern service industry has been a strategic industry that transforms our country's economic development mode and optimizes the industrial structure. It is the realization of economic structural adjustment. Major strategic deployment.
Wei Zuolei (2004) used employment output elasticity calculations and found that since 1990, my country’s primary industry has been saturated with employment and has begun to exclude labor; the secondary industry’s capital and technology’s substitution for labor has gradually increased, and the ability to absorb employment has gradually declined; Has maintained a strong ability to absorb employment.[2] Scholars generally feel that compared with the 70% employment rate of the service industry in developed countries, China's service industry has great development potential.

2. Changes in the Number of Employees in the Tertiary Industry in Jinzhou

Here we select the data of employees in the tertiary industry from 1997 to 2018, and analyze the changes in the number of employees in the tertiary industry, the number of employees in the traditional service industry, and the number of employees in the modern service industry.

2.1 The Personnel Working in the Tertiary Industry Fluctuate Greatly

From the perspective of the overall number of employment in the tertiary industry in Jinzhou, from 1997 to 2004, the number of employment decreased year by year, reaching the bottom in 2004. From 2004 to 2016, the number of employed persons increased year by year, and then began to decline sharply. The total number of employed people has transitioned from 187,000 to 63,000. In the past 22 years, the average number of employment in the tertiary industry reached 115,000.

2.2 The Number of Employees in Traditional Service Industries Has Shown a Downward Trend

Traditional service industries include wholesale and retail; transportation, warehousing and postal services, as well as accommodation and catering. Before 2012, the traditional service industry fluctuated greatly, especially when it reached the bottom in 2004, which is indeed in line with the overall employment situation in the tertiary industry. (It is speculated here that Jinzhou City may have the lagging impact of SARS in 2004) After 2012, the traditional service industry has been decreasing year by year and tending to level off. Under the influence of the “Twelfth Five-Year Plan” and “Thirteenth Five-Year Plan”, the gradual transformation of the traditional service industry has become inevitable.

2.3 The Number of Employees in Modern Service Industries Tends to Rise Overall

With reference to the relevant statistical standards of the National Bureau of Statistics on “Modern Service Industry”, “Modern Service Industry” includes the following industries: information transmission, software and information technology service industry, financial industry, real estate industry, leasing and business service
industry, scientific research and technology Service industry, water conservancy, environment and public facility management industry, education, health and social work, culture, sports and entertainment industry, public management, social security and social organization. From 1999 to 2004, the modern service industry in Jinzhou City flourished for a period of time, and then rose year by year, until now, it has been stable and sustained high development. This proves that the modern service industry has gradually entered the mainstream market, and it has also led to an increase in employment opportunities. Regarding the difference between industries, it can be clearly seen that Jinzhou has more employees than other industries in public management, social security and social organization; culture, sports and entertainment industries; health and social work, and education.

2.4 People's Living Standards Have Improved Significantly

In 1997, the per capita disposable income of Jinzhou urban residents was only 436.12 yuan. By 2018, it had reached 32,490 yuan. It can be seen that the quality of employment has greatly improved and the people's living standards have also improved significantly. Based on the above content, although the number of employees in the tertiary industry in Jinzhou City has not increased, the rise of modern service industry is obviously higher than that of traditional service industry. At the same time, the modern service industry is more conducive to promoting the quality and quantity of employment. At the same time, the balanced development of various industries in the modern service industry, especially culture, sports and entertainment, public management, social security and social organizations, should increase investment in order to be more conducive to improving the modern service industry’s tremendous employment promotion potential. In addition, my country's modern service industry is still in its infancy and its development potential has only just emerged. With the continuous deepening of the upgrading and transformation of my country's national economy, the marginal investment and employment promotion capacity of the modern service industry will gradually expand.

3. Analysis of the Relationship between Service Industry and Employment

3.1 Employment Flexibility

Employment elasticity refers to the change in the percentage of employment for every one percentage point change in GDP. In economic theory, employment elasticity is generally used to analyze the difficulty of employment. Generally speaking, as the economy continues to mature, the elasticity of employment will gradually decrease. The continuous decrease in employment elasticity shows that the incremental amount of labor required to create an incremental value has become smaller, which actually means an increase in labor productivity. There are two main ways to improve labor productivity: one is technological progress, and the other is the change of employment structure corresponding to the economic structure. Due to
technological progress, the work that used to be done by two people can now be done by one person, and employment flexibility will inevitably decrease.

If the index is positive and the value is larger, the economic growth has a stronger effect on employment. If the indicator is negative, there are two situations: if the economic growth is positive and the employment growth is negative, then the industry has the phenomenon of surplus labor transfer to other industries; if the economic growth is negative and the employment growth is positive, the industry is expanding. At this stage, there is a certain attraction for labor migration.

Employment elasticity $\alpha = \frac{\text{Employment growth rate}}{\text{GDP growth rate}}$

$$\text{Employment elasticity} = \frac{L_{t+1} - L_t}{L_t}; \quad \text{GDP growth rate} = \frac{G_{t+1} - G_t}{G_t}$$

Among them, $L_t$ represents the number of jobs in year $t$, and $G_t$ represents GDP in year $t$.

We selected the employment growth rate and GDP growth rate of Jinzhou from 1998 to 2018, and further calculated the employment elasticity data. In the early years, the positive and negative values of employment elasticity fluctuated greatly, indicating that the tertiary industry's ability to absorb labor was higher or lower. However, in recent years, employment elasticity has been negative, proving that economic growth has had a crowding-out effect on employment. It shows that Jinzhou's tertiary industry's ability to absorb labor is improving, and the development prospects of the service industry are considerable.

Because the Party Central Committee currently proposes to promote supply-side reforms in the overall situation of our country and the entire industry. The service industry, especially the modern service industry, has become a key industry for my country's vigorous development, and has increasingly become the main traction of my country's total industrial volume. Supply-side reforms also require intensified supply-side reforms in the service industry, especially the modern service industry. How the service industry, especially the modern service industry, realizes the supply-side reform is based on analyzing the fundamental point of the demand side of the service industry-how many people obtain employment and gain benefits in the service industry, especially the modern service industry. So, next, we will use structural deviation and comparative labor productivity to further analyze.

### Table 1 Statistics of employment elasticity in Jinzhou from 1998 to 2018

<table>
<thead>
<tr>
<th>Years</th>
<th>Employment growth rate</th>
<th>GDP growth rate</th>
<th>Employment flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>-0.318</td>
<td>0.038</td>
<td>-8.258</td>
</tr>
<tr>
<td>1999</td>
<td>0.022</td>
<td>0.001</td>
<td>22.295</td>
</tr>
<tr>
<td>2000</td>
<td>-0.180</td>
<td>0.049</td>
<td>-3.676</td>
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</tr>
<tr>
<td>2016</td>
<td>0.014</td>
<td>-0.222</td>
<td>-0.061</td>
</tr>
<tr>
<td>2017</td>
<td>-0.451</td>
<td>0.0432</td>
<td>-10.421</td>
</tr>
<tr>
<td>2018</td>
<td>-0.309</td>
<td>0.107</td>
<td>-2.899</td>
</tr>
</tbody>
</table>
3.2 Structure Deviation

The degree of industrial structure deviation is used to measure whether the industrial structure and the employment structure are balanced. The smaller the deviation, the more balanced the development of each industry; on the contrary, the more unbalanced the employment structure and industrial structure. When the industrial structure value is less than 0, it means that the proportion of output value is less than the proportion of employment; on the contrary, the proportion of output value is greater than the proportion of employment. If the absolute value of the structural deviation of a certain industry is greater, the employment structure and industrial structure are more asymmetrical.

It is generally believed that the degree of structural deviation is equal to zero, indicating that the industrial structure of the industry is balanced with the employment structure; the degree of structural deviation is less than zero, then the industry has hidden unemployment; the degree of structural deviation is greater than zero, the industry has failed to achieve full employment, and further Ability to absorb labor.

\[
C = \frac{P}{E} - 1
\]

Among them, C represents the degree of structural deviation of the service industry, P represents the percentage of service industry output to GDP, and E represents the percentage of employment in the service industry.

![Fig.1 The Structural Deviation Chart of Jinzhou City from 2012 to 2018](image)

Here we select the relevant data of Jinzhou from 2012 to 2018, and do the following analysis of the degree of structural deviation. Here we see that the C value is negative, which proves that the output value ratio is less important than the...
employment ratio. However, we also made a trend assessment of the C value and found that its absolute value tends to decrease year by year, indicating that the employment structure and the industrial structure are symmetrical. It proves that although the development of the tertiary industry in Jinzhou City is not very fast, its trend is still relatively good.

3.3 Comparative Labor Productivity

The so-called comparative labor productivity of the tertiary industry is the ratio of the GDP proportion of the tertiary industry to the employment proportion of the industry. When the comparative labor productivity approaches 1, the labor productivity level of the industry is relatively reasonable; if it is greater than or less than 1, the industry will transfer surplus labor to other industries or absorb labor transferred from other industries.

\[ B = \frac{P}{E} \]

Among them, B is the comparative labor productivity of the service industry, P is the proportion of service industry output value to GDP, and E is the employment proportion of the tertiary industry. We selected data from 2012 to 2018 and found that the comparative labor productivity of Jinzhou City from 2012 to 2018 was rising year by year, and gradually tended to 1, which proves that the tertiary industry of Jinzhou City is still in the process of absorbing labor. The future development trend of Jinzhous' tertiary industry is on the rise.

Combining the above data, we can actually find that in the process of the gradual rise of the modern service industry in Jinzhou, it does provide many new jobs for
Jinzhou, but the overall employment rate in Jinzhou is not as fast as expected, but the overall appearance The upward trend proves that there is still much room for development, especially in public management, social security and social organizations; culture, sports and entertainment; health and social work, and education. Jinzhou City must seize opportunities and appropriately do business in these areas. Good control and appropriate investment, and vigorously develop key industries, and increasingly become the main traction of the total industry. This is also in line with the original intention of the supply-side structural reform, that is, how many people obtain employment and gain benefits in the service industry, especially the modern service industry.

4. Conclusion

In view of the current development of modern service industry in Jinzhou, the following suggestions are put forward. It is necessary to vigorously develop the tertiary industry. Although my country’s service industry has entered a rapid development track, there is still a big gap compared with developed countries. The development of the service industry should be regarded as the main focus of development, and the service industry should be regarded as the engine and leading industry of economic development. In particular, Jinzhou, as the second largest coastal city in Liaoning, a regional logistics center city in Liaoning Province, and a city in the coastal economic belt of Liaoning, should set an example.

One is to go hand in hand with the development of the manufacturing industry and integrate the traditional service industry with the advanced manufacturing industry. We should seize the opportunity of further expansion of opening to the outside world and the gradual acceleration of the internationalization of the service industry, and take advantage of my country’s manufacturing industry to develop supply chain management, modern logistics and commercial circulation, accelerate the development of third and fourth party logistics, and promote The integration and interaction of service industry and manufacturing industry.

Second, take the development of the Internet economy as an opportunity to vigorously improve the development level and level of the service industry. The “Internet+” economy is developing rapidly. For the development of urbanization and consumption upgrading, we must not only deepen modern service industries such as education and tourism, but also actively develop education, elderly care, health and other service industries to adapt to many aspects of today’s society. development of. In particular, Jinzhou City can fully develop its tourism industry with the help of its unique geographical conditions, and it can also vigorously develop its modern service industry.

The third is to relax the service industry access mechanism and accelerate the marketization of the service industry. The government should focus on purchasing public services, accelerate the legislation of public welfare legal persons, and actively give play to the unique role of public welfare social organizations in the field of public services. At the same time, accelerate the socialization and
marketization of public resource allocation, fully introduce a competition mechanism in the transfer of franchise rights, fully standardize and improve government procurement, and improve the formation of a new pattern of full opening of the service industry market to social capital.[3]

References