

Analysis of the Structure of China's Services Exports

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Abstract: Trade in services has become a trend in the world, and it is an upgraded excess after trade in goods. The scale of China's service trade is growing, but the overall strength and competitiveness is weak, expanding the opening of service trade to the outside world has become an important part of China's promotion of a new round of high-level opening. Under the framework of Belt and Road and RCEP, service trade carries out radial cooperation. If we cultivate and make good use of the international platform for service trade exchanges and cooperation, optimising the export structure of service trade will certainly bring new development opportunities to China. This paper analyses the export structure of China's trade in services, and on the basis of the index analysis method, combines the actual theoretical analysis to find out the existing problems of the structure and puts forward its own countermeasure suggestions for the problems.

Keywords: Structure of Trade in Services Exports; Lawrence Index Analysis; Trade Concentration

1. Introduction

1.1 Background to the study

With the acceleration of China's internationalisation process, in terms of trade in services, although China's imports and exports have been increasing year by year, and the growth rate has been rising year by year, China has always been in a deficit position in terms of trade in services^[1]. Optimising the trade in services so as to reduce the trade in services deficit will provide a strong infrastructure support for China's development into a big country in terms of trade in services. The significance of the study is to make everyone clearly realise that if China wants to become a big trading nation, it cannot only look at the total volume of import and export trade, but also pay more attention to the smooth export structure behind the service trade. It is closely related to the development of the times, but is still in a weak position due to the late start of development. The traditional big service sectors such as transport and tourism services, in the total trade in services, have always accounted for a high proportion, but the competitiveness of the industry has gradually declined. In recent years, the scale of China's trade in services has been expanding, and it is known by the Ministry of Commerce data that in the past ten years, the import and export volume of China's trade in services has tripled, especially on the scale of imports, and the proportion of the national economic growth has continued to increase, and in 2018 China's total import and export volume of trade in services has reached 5.24 trillion yuan, an increase of 11.5% year-on-year, which is the highest rate of growth since 2011, and the scale has reached another record high. But the scale of exports has still fluctuated around 200 billion US dollars in the past decade, and the proportion of exports in the import and export volume is also relatively small. China, as a country with a large population and a vast territory, the service trade industry will also follow the diversified, nowadays China's service trade categories are processing services, maintenance and repair services, transport, travel, construction, insurance and pension services, financial services, intellectual property rights royalties, telecommunication, computer and information services, other business services, personal, cultural and recreational services, such as twelve categories, because of the needs of the So there is diversity, and the presence is getting stronger and stronger, playing a bigger and bigger role, its import and export growth rate is fast, in January-November 2018, knowledge-intensive services exports up to 777.7 billion yuan, up 26.2% year-on-year; imports of 735.7 billion yuan, up 15.6% year-on-year, which also demonstrates China's high-end scientific and technological capabilities of the progress as well as the rise in the demand for scientific and technological productive services, the emerging services In 2022, China's services import and export volume will reach \$889.1 billion, up 8.3% year-on-year, ranking second in the world for nine consecutive years. From "Made in China" to "Services in China", China's economy has been accelerating the transformation of kinetic energy. The development of international co-operation has rapidly promoted the development of China's trade in services, and the two have interacted with each other to become the driving force of each other's growth, and the develop-

ment of the Belt and Road is a multifaceted development of China's trade in services, and the international status has been enhanced^[2].

1.2 Review of relevant literature

Li Cuijuan^[3] (2010) analysed the export structure of China's trade in services by using the MI index and the Lawrence index, and found that the export structure of China's trade in services is developing fast, but the overall competitiveness is weak. Wang Li^[4] (2017), in analysing the export structure of trade in services, adopts the horizontal and vertical comparison method, the chart analysis method and the index analysis method to dissect the current situation of China's trade in services structure. At the same time, using theoretical analysis of empirical analysis, it is pointed out that the development of the service industry can be through the expansion of the scale of the service trade, technological progress, and the input of human capital and physical capital can optimise the structure of the export of service trade, but on the contrary, the openness of the service trade plays an opposite role in the optimisation of the structure. Zhao Xiaoxu^[5] (2018) first explores China's service trade structure by index analysis, and then establishes a diamond model, calculates the degree of association between various factors and China's service trade structure by diamond theory and grey correlation analysis, and finally conducts an empirical analysis by VERS model. The results point out that China's trade in services is mainly led by transport and tourism, while the development of other industries is relatively lagging behind. Production factors, demand factors, relevant supporting industries, enterprise strategies and competitiveness have a profound impact on the structure of trade in services^[6,7]. In comparison with other developed countries internationally, the competitiveness advantage is clearly insufficient^[8,9].

1.3 Innovations and shortcomings

The innovation of this paper is to focus on the analysis of the structure, but not to analyse more than the structure of the problem. This paper is a more specific and data-supported research on the structure as a whole from the stability of the structure, changes in structural components and changes in the proportion of important structural elements. In the field of services trade export structure research, most studies are directed towards the analysis of the competitiveness and advantages of the services trade structure, ignoring the basic problems of the structure itself and the purpose of optimising the structure, i.e., optimisation is not only to improve competitiveness but also to improve the overall strength. The purpose of optimisation is not only to improve competitiveness, but also to improve the overall strength. The shortcoming of this paper is that the scope of data for index analysis is not sound enough, such as the data needed for the Lawrence index, which can only be found in recent years, so for long-term research, this paper is not sufficient, and the research can only focus on the development in recent years. In addition, the ability to deal with foreign language literature is not high enough, and at the same time, in the link of empirical research, it can't solve the problem well.

2. Analysis of the structure of China's exports of services

The structural concentration of trade in services exports is the proportion of China's total trade in services exports accounted for by each service industry in the point of export, in fact, it is a conversion of the market concentration of industrial economics, the formula for which is:

$$CR_k = \sum_{i=1}^k X_i / X$$

X_i/X in the formula refers to category i services trade industry exports accounted for the proportion of China's total exports of trade in services exports, this formula means that the sum of k category i industries mastered the share of the overall industry. The degree of concentration of k categories of trade in services. Table 2 is the CR3 table, CR3 means the concentration of the first three industries including transport, tourism and business services, from the data in the table, China's trade in services export concentration fluctuates around 70%, the concentration is moderately high, indicating that the first three industries occupy the majority of the market share. Table 3 shows the CR6, i.e. the top six industries, including transport, travel, construction, processing services, telecommunications, computer and information services and other business services. The data in the table shows that from 2012-2017, the concentration of the export structure of China's top six service industries was above 90%, but the concentration showed a decreasing trend over the years, and the concentration dropped from

96.35% to 90.53% in 2012-2017. The declining concentration indicates that there are other industries that are influencing the current structure and that the current stable structure is out of balance. The gap between emerging services and traditional services can be seen by the data in the table, emerging services have good prospects for development, but now it is still in a competitive disadvantage, and the proportion of traditional services is always high. Emerging service industry is the industry of the knowledge economy era, is a derivative of the information age, China's consumption structure continues to upgrade as well as the social division of labor is becoming more and more clear and refined, emerging service industry came into being. China's science and technology has been upgraded, but there is no mature operation mechanism in the emerging service industry, so it is not perfectly combined with Chinese characteristics.

Table 2.1 Concentration of export trade in China's top three sectors of trade in services, 2010-2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
CR3	0.6908	0.6987	0.6943	0.7079	0.6899	0.6494	0.6498	0.6021

Table 2.2 Concentration of export trade in the top six sectors of China's trade in services, 2010-2017

year	2012	2013	2014	2015	2016	2017
CR6	0.9635	0.9544	0.9497	0.9369	0.9258	0.9053

2.1 Analysis of the structure of the Lawrence Index

The Lawrence Index provides a more objective analysis of the export structure. The Lawrence formula is:

$$L = (1/2 \sum_i^n) | S_{i,t} - S_{i,t-1} |$$

$S_{i,t}$ represents the share of exports of product i in the total trade exports of the country in year t . The expansion is $S_{i,t} = X_{i,t} / \sum_i^n X_{i,t}$, and $X_{i,t}$ represents the total trade volume of product i in year t . The size of Lawrence's index is only between 0 and 1, and the closer the Lawrence's index is to 0, the more stable the object of study is; on the contrary, the closer it is to 1, the more unstable the object of study itself is. As can be seen from Table IV, during the seven years from 2011 to 2017, the numerical fluctuation of China's export structure of trade in services is relatively stable, and relative to the highest export Lawrence index of 0.15 in 2014, the index is relatively low in other years, close to 0, which indicates that China's overall export structure is still relatively stable.

Table 2.3 Lawrence Index of China's Trade in Services Exports, 2011-2017

norm	2011	2012	2013	2014	2015	2016	2017
Lawrence Index	0.11	0.09	0.07	0.15	0.1	0.07	0.11

2.2 Structure of trade in services exports - a factor-intensive perspective

Most service industries are knowledge- and technology-intensive, but the scale of trade in services plays a far less important role than that of traditional labor- and capital-intensive industries. From the above analysis and the data in the table, China's service industry export trade volume has been increasing every year, but the growth rate has been declining, structural imbalance. The growth rate of emerging industries is higher, indicating that the traditional industry is over to the emerging service industry, the structural integrity of the industry is improving, but the overall structure is still relatively weak. The total number of knowledge- and technology-intensive industries is relatively small, and industries closely related to technological information have a certain lag in applying them to the real industry when technology is constantly being innovated, resulting in fast technological development and slow industrial upgrading^[10,11].

3. Problems in the structure of China's services exports

3.1 Lack of rationality in the internal structure of trade in services

In the analysis of the export categories of trade in services, the immature mechanism of the emerging industries restricts their development, while the advantages of the traditional service industry with solid foundation and mature mechanism remain. Has been China's trade in services mainly rely on the transport industry, tourism and other commercial services to drive economic growth, trade in services industry categories, in addition to the three major industries, the remaining industries should also pay attention to. Because the trend of the times has

changed today, the traditional service trade industry can not support the long-term development. China's knowledge- and technology-intensive trade in services industry does not account for a high proportion, the division of labor between each industry is not very clear, and the role played is not targeted^[12].

3.2 Weak development force of trade in services

The development of trade in services in China and the national conditions of China are somewhat related. The overall development power is weak because of the imbalance of the focus point, from the above analysis, the traditional industry sectors and the development of emerging service industry is a huge difference, and the development of emerging service industry is slow, like the short board effect, emerging industries can not be developed, then the overall development power of the trade in services will also not be high. At the same time, China's trade in services management system exists in the multiple management and the problem of the various departments do not contact each other, restricting the management of the high efficiency of the service industry under the management of the problem of irregularity, the development of the power of the various sectors and industries need to cooperate with each other in order to enhance.

3.3 China's service trade export deficit continues to grow

According to the data of the past two decades, China's service trade deficit is on an upward trend. As shown in Figure 3 and Figure 4, China's service trade deficit situation. Mainly in the transport industry and tourism industry deficit, other industries also have a deficit, accounting for a relatively small. The deficit in the transport industry stems from the fact that total imports are high and imports are growing fast. Tourism deficit stems from domestic residents outbound travel and study tours, etc., the growth of the deficit can be understood to a certain extent as China's trade in services has a new development, but the continued growth of the deficit will damage the impetus for the growth of trade in services.

3.4 Lack of service trade talents

Service trade export industry type, can be subdivided into more than 150 sub-sectors, each sector is very strong between the professionalism and involves the practical operation, and thus high requirements for practitioners, so in terms of talent is very lack of composite talents is scarce. The various management mechanisms of the trade in services industry are not very sound and mature, so in the early training of talents, is not very concerned. And in colleges and universities, trade in services has not been opened, and in terms of professional training, enterprises to carry out less.

4. Conclusions and recommendations for countermeasures

In the above data analysis, China's export structure of trade in services from a few years to see is relatively stable, but the imbalance still occurs. From the services trade export industry classification accounted for the proportion of the structure of its own problems affecting the development of trade is greater, the traditional services industry to look at the growth at the same time also pay attention to the problem of increasing the deficit, to solve the structural problems to be addressed with both hands. Labor-intensive industries accounted for the largest proportion of knowledge-intensive industries accounted for a relatively small proportion, in the knowledge economy era, the development of service trade exports between the two should follow the trend of the times, and constantly carry out technological innovation, to improve the development of knowledge-intensive industries and exports, more conducive to the completeness of China's export structure of trade in services and stability. In view of the problems found in the study, this paper mainly puts forward structural optimisation countermeasures from the aspects of talent cultivation, service trade development environment and service trade product categories.

4.1 As for the structure of service trade product categories

The importance of China's top three service trade industries cannot be underestimated, so in the development of each service industry, not only should we maintain the important advantages of the three major service industries, but also, on its basis, we should carry out the

development of other industries and balance the development of each industry. In the tourism industry, China has a unique natural advantage, the characteristics of the landscape of the north and south, coupled with the country's large population, the development of tourism can be guaranteed. In the transport industry, strengthen the innovation of management and improve efficiency. Promote the development of new industries and use capital and technology to innovate them and change their lagging development. At the same time, knowledge- and technology-intensive industries need to be emphasised, and the stability of the structure is closely related to the role of each industry. Technology is the first productive force, service trade exports also need to strengthen the innovation and development of the corresponding technology.

4.2 The introduction and training of professionals

The transformation and upgrading of the service trade export structure and the optimisation of the industrial structure require a team of talents with excellent professional knowledge and technology. For the cultivation of high-precision innovative team, the first step can be from the scientific research institutions or major universities to select talents. The second step in the process of talent training or introduction, give the talent certain rewards, incentives, such as policy subsidies, housing subsidies and other aspects, based on talent protection. Accelerating digital talents and cross-border e-commerce talent development programmes to seize the opportunity of digitisation of trade in services^[1, 7, 13, 14].

4.3 Improve the basis for the development of trade in services

China absorbs foreign advanced technology and experience, innovates a development model with Chinese characteristics, and vigorously introduces foreign investment. At the same time, it optimises the domestic investment environment for trade in services, attracts foreign investment and improves the standards of the service industry. What the relevant departments need to do is to create a fair and just business environment. In the long run, some monopolistic service industries can be gradually liberalised, so that the industry has the space for free competition and free growth. Relevant departments also need to pay attention to the problem of service industry infrastructure, the diversification of the mode of trade in services can not be separated from a country's infrastructure, service efficiency is also closely related to a country's infrastructure, the construction of infrastructure can be used in the form of co-financing in cooperation with enterprises, which to a certain extent can not only stimulate the growth of the internal consumption of the economy, but also play a good service industry infrastructure construction.

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