# PHÂN TÍCH NĂNG LỰC CẠNH TRANH VÀ TÍNH BỔ TRỢ CỦA THƯƠNG MẠI DỊCH VỤ GIỮA TRUNG QUỐC VÀ NHẬT BẢN

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## Tóm tắt

Quá trình toàn cầu hóa kinh tế, các cuộc cách mạng công nghệ mới và các ngành công nghiệp mới nổi đang phát triển nhanh chóng trên khắp thế giới khiến ngành công nghiệp cấp ba, đặc biệt là ngành dịch vụ, ngày càng đóng vai trò quan trọng trong việc nâng cao khả năng cạnh tranh của một quốc gia trong thương mại toàn cầu. Và rõ ràng là sự phát triển thương mại dịch vụ của các nước công nghiệp phát triển vượt trội hơn so với các nước mới nổi. Là nền kinh tế lớn thứ hai trên thế giới hiện nay, ngành dịch vụ của Trung Quốc đã phát triển nhanh chóng trong những năm gần đây, và khả năng cạnh tranh trong thương mại dịch vụ quốc tế cũng không ngừng được nâng cao. Tuy nhiên, với tư cách là nước đang phát triển lớn nhất thế giới, vẫn còn một khoảng cách lớn giữa trình độ phát triển ngành dịch vụ của Trung Quốc và các nước phát triển. Ngược lại, Nhật Bản có cơ sở công nghiệp tốt với tư cách là một nước phát triển công nghiệp tư bản cũ. Tuy nhiên, tiến bộ kinh tế Nhật Bản bị ảnh hưởng nặng nề khi bong bóng kinh tế những năm 1980 và 1990 sụp đổ. Để tìm ra những khiếm khuyết trong phát triển ngành thương mại dịch vụ của Trung Quốc, bài báo này chọn xuất khẩu dịch vụ, thương mại dịch vụ (% GDP), năng lực cạnh tranh thương mại dịch vụ giữa Trung Quốc và Nhật Bản để từ đó đề xuất một số biện pháp phát triển thương mại dịch vụ.

Từ khóa: Thương mại dịch vụ, năng lực cạnh tranh, tính bổ trợ, Trung Quốc, Nhật Bản.

# ANALYSIS OF THE COMPETITIVENESS AND COMPLEMENTARITY OF SERVICE TRADE BETWEEN CHINA AND JAPAN

### **Abstract**

Economic globalization, new technology revolutions, and emerging industries are developing rapidly around the world, which has made the tertiary industry, especially the service industry, play an increasingly important role in improving a country's competitiveness in global trade. And it is apparent that industrialized countries' service trade development is superior to that of emerging countries. As the second-largest economy in the world today, China's service industry has developed rapidly in recent years, and its competitiveness in international service trade has also been continuously enhanced. However, as the largest developing country in the world, there is still a big gap between China's service industry development level and that of developed countries. On the contrary, Japan has a good industrial base as an old capitalist industrial developed country. However, Japan's economic progress suffered greatly when the 1980s and 1990s bubble economy collapsed. To find out the deficiencies in the development of China's service trade industry, this paper selects service exports, trade in services (% of GDP), trade competitiveness, the comparison of export structure, and the index of export rise advantage to compare service trade competitiveness indicators between China and Japan so that propose some measures for the development of trade in services for reference.

**Keywords:** Service trade, competitiveness, complementarity, China, Japan. *JEL classification: F1: F12.* 

## 1. Introduction

German Firms in Service Trade (Kelle and Kleinert, 2010) said, services are increasingly important in modern economies and becoming more transferable as a result of technical advancements and deregulation and liberalization policies. Generally, International service trade is the process that service providers provide services to consumers from the territory of a country to another country through the commercial site or the natural person site, and obtain foreign exchange earnings. In the pattern of the world economy, the service economy has risen rapidly and become a significant feature of the world economic development. With the modernization of the global industrial structure and the transfer of international industries, services trade between different countries becomes one of the important symbols of the development of the service economy and more and more important as a part of international trade and investment which leads to three effects as follows: (1) The development of trade in service makes it become a link between trade activities around the world and transnational production and operation of enterprises. (2) the service industry plays an increasing role in a country's economic and trade activities, and service trade has become one of the most important factors in contemporary international competition. (3) the development of modern information technology has led to a breakthrough in many areas that can't trade before. Besides, it makes the effect of the service industry on global production continues to strengthen. What's more, the service industry has gradually become the base for the deepening of the overall internationalization degree, so the competitiveness of service trade is of great significance for enhancing the nation's ability to compete internationally.

However, due to geographical differences, development stage and level, countries differ greatly in terms of scale and competitiveness of trade in services: developed countries occupy the dominant position while developing countries and regions have an increasing position in international service trade. But there is still a considerable gap in the overall scale of trade in services compared with developed countries.

This paper selects Japan and China, which are geographically close and culturally similar, to conduct a comparative study on the international service trade competitiveness of two countries. Because China was founded later than many developed countries, China's economic development strategy more focused on

industrialization for a long time which leads to relatively lagging development in service trade and a big gap in the competitiveness of international trade in services. On the contrary, Japan developed its industry and established its industrial system as early as the 19th century, so the development of the service industry in Japan is relatively complete. Especially in the modern information technology area, Japanese electronic chips and information services occupy a large proportion of the international market.

Although China's early service trade development is not as good as Japan's, the situation gradually changed. With the implementation of China's reform and openingup policy, China's economy developed rapidly, while Japan's economy is facing a serious crisis with the bursting of Japan's bubble economy. China's growing involvement in the global economy has helped to sustain global trade growth. China's purchases from all areas, notably in Asia, where China plays an increasingly significant role in regional specialization, have increased along with its exports' diversification and wider penetration into industrial country markets (Rumbaugh and Blancher, 2004). Since the late 1970s and the onset of high growth in China, the fraction of service trade to Gross Domestic Product (GDP) has grown steadily from 2% to 7% of GDP today (Chen and Whalley, 2014). This expansion of trade in services in the wider economy has reflected China's rapid growth of GDP and is parallel with the share ratio for other large developed economies including the US and Japan. As an important part of the economic structure, the service industry has also been affected. Based on its size advantage, China's economic aggregate surpassed Japan's and became the world's second-largest economy. In addition, China's economic growth rate is also higher than Japan's. However, as a developed and old capitalist industrial country, Japan is still better than China in many aspects.

Aiming to provide some useful advice for the development of Chinese service trade, we select five aspects of service exports, trade balance, trade in services, trade competitiveness, export structure and export growth rate to analyze the current situation and influencing factors of Chinese and Japanese current international competitiveness of service trade.

### 2. Literature Review

Research history review: Western scholars' discussion of the concept of trade in services began with the concept of "service" itself. Dating back to 1977, Hill (1977) first recognized the concept of service in the world. Hill pointed out: "Service refers to the change of a person or a thing belonging to a certain economic unit as a result of the activities of other units on the premise of prior consent. In the mid-1980s, Bhagwatti (1984), Sampson, and Snape (1985) expanded the definition based on Hall's concept of "services", the former defines trade in services in four ways, and the latter is largely consistent with Bhagwatti's classification, but propose that the recipient of the service can be either a person or a thing by. Shelp (1986) pointed out that trade in services is a sword to break down inherent barriers and a bridge between various industries, which can promote the effective integration of various industries and improve the adhesion between industries, thereby stimulating new growth engines. Feketekuty (1988) studied the difference between trade in goods and services, and it was noted that the development of trade in services could not replicate the methods and patterns of trade in goods. The most dynamic and advantageous area of international trade in the last 20 years has been the trade in services, which is appreciated by many nations and is expanding more quickly than the trade in goods. Developing countries and transition economies have played an increasingly important role in this area, increasing their share in exports of world services from a quarter to one-third over this period.

Compared to the numerous analyses on the competitiveness of different countries or economic cooperation organizations, the comparative research about trade in services of two countries remains in its infancy. A capital constraint has been inadequate data directly presenting the comparative advantages and complementary of trade in the services sector, particularly in Asian countries. Furthermore, the prior study lacked a comparison component because it was focused on a single nation and other particulars. On the one hand, Zhou (2009) explored that China's service trade competitiveness index has been below zero in the long term, with a certain increase in 2004, which indicates China's services trade was still at a disadvantage in the international competition despite it maintained a fast growth rate. Huang (2016) suggested the overall competitiveness of China's service trade is relatively low, and there are still sharp structural contradictions in service trade. Traditional laborintensive and resource-intensive industries dominate the service sector, whereas capital- and technologyintensive industries have weak competitiveness. On the other hand, Jiang (2011) showed that although Japan's service sector does not meet the degree of the world average, it has significant comparative advantages over China in construction, royalties, and licensing fees, other commercial services, finance, and other industries, Japan is in a dominant position in the areas of knowledge-intensive, technology-intensive and capital-intensive trade in services. However, Japan is at a competitive disadvantage in travel, insurance, computers and information, and personal, cultural, and recreational services.

Research perspective innovation: However, due to the changes in the economic situation and the development of the international pattern, more and more scholars vastly realized that these successful researches are no longer suitable and useful for modern economic analysis and countermeasure research nowadays. More recent work tends to pay more attention to specific countries and sectors. Some of the above research results chose developed countries like the United States, Germany and so on as research objects, others chose the large developing countries, such as China and India as the research objects. Unlike the existing literature, this paper from the perspective of China's service trade chooses to conduct a comparative analysis between China and Japan

to provide useful suggestions for the development of China's trade in services. The main reasons are as follows, firstly, China and Japan are countries with geographical proximity, which exists fierce competition in services trade in Asia and even the whole world, so it is necessary to conduct a comparative analysis of Japan's trade competitiveness to maximize China's strengths and avoid China's weaknesses. Secondly, although China's services trade started later than Japan's, it is growing quickly, making a comparison between the two countries possible. Japan has a long history of expanding trade in services and it's a strong country in this area. More so than during the 2008-2009 financial crisis, quarantines and lockdowns are projected to cripple output, causing the global economy to decline by 3%. (Shrivastava, Sharma, and Banik, 2021). Lastly, under the bad background of COVID-19, although China is the only country to achieve positive trade growth, we still need to identify our strengths and weaknesses to better respond to the severe situation of the COVID-19 pandemic to formulate rational development policies and achieve steady economic development.

### 3. Discussion

# 3.1. Service exports (BoP¹, current US\$)

The value of service exports can most intuitively reflect the competitiveness of a country's international service trade. The larger the value, the more developed the country's service trade exports and the stronger the production capacity of service products.

**Table 1:** Service exports (BoP, current US\$) of China and Japan from 2021 to 2019

Country Name	2012	2013	2014	2015	2016	2017	2018	2019
Innan	136,973,	135,398,	163,793,	162,672,	175,703,	186,848,	194,249,	209,453,
Japan	987,462	403,064	003,423	975,122	547,794	568,320	761,810	322,145
China	201,575,	207,005,	219,140,	217,399,	208,403,	213,063,	233,566,	244,359,
China	599,552	802,689	751,664	035,857	830,208	558,171	761,810 32 , 233,566, 24	155,291

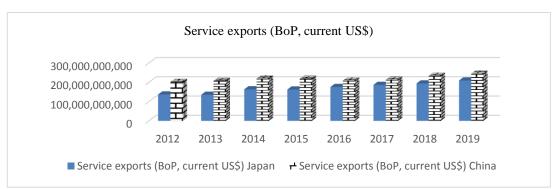


Figure 1: Comparation of service exports (BoP, current US\$) between China and Japan

(1) As figure 1 shows, the service trade exports of Japan and China from 2012 to 2019 generally showed an upward trend. It demonstrates two nations' growth trends are reasonably steady, that market prospects are also one of the reasons. favorable, and that there is stable economic momentum for the future.

(2) Comparatively speaking, the growth trend of Japan's service trade exports is more stable, while China's service trade exports have experienced large fluctuations from 2012 to 2019. Japan's service trade exports have a small change that just more than 1000 billion in 2014-2015. However, China's service trade exports fell significantly between 2014 and 2016. And 2016's trade export of USD208,403,830,208 is even near to 2013's trade export of USD207,005,802,689, indicating that China's service trade sector faced some upheaval between 2014 and 2016. These are related to the fact that China's service trade export structure is facing transformation and the economies of emerging market countries have slowed significantly so that the demand for service products in the

Source: WITS-Country Profile international market has dropped significantly. In addition, the exchange rate of RMB against the US dollar depreciated by nearly 10% from 2014 to 2016, which is

(3) In terms of total service exports, China's economy is much larger than Japan's. As table 1 shows that China's service trade export volume in 2012 reached USD201,575,599,552 which is more than 200000 billion while Japan's service trade export in 2018 only reached USD194,249,761,810. improvement of China's overall economic market in recent years played a vital role. Especially after entering the 21st century, China has entered an era of rapid development. With high-quality development and gradual upgrading of industrial structure, China has gradually surpassed Japan to become the world's second-largest economy which also includes trade-in services.

Based on table 1, we used the simple moving average method (interval is 3 years) to forecast the

(IMF) abbreviated Balance of Payments Manual. "Services" under the current item in the BOP refers to transactions in services between residents and nonresidents.

<sup>&</sup>lt;sup>1</sup> BoP means Balance of Payments. Each member shall submit their own (regional) balance of payments statement according to the statistical scope and item classification of the International Monetary Fund's

service trade export volume of China and Japan in 2014-2019. As figure 2 and figure 3 show, the actual value of China and Japan's service trade export value is

not significantly different from the predicted value. The development of service trade in China and Japan has been in a normal state in recent years

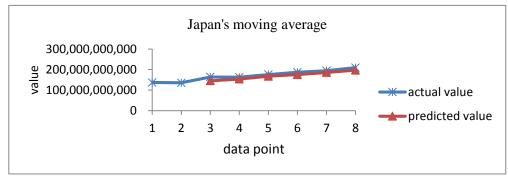
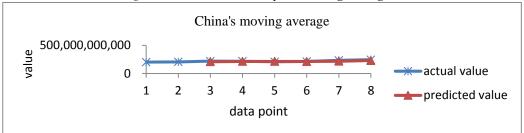


Figure 2: Japan's service exports moving average

Source: WITS-Country Profile

Figure 3: China's service exports moving average



Source: WITS-Country Profile

We also used exponential smoothing (damping coefficient is 0.3) to predict the trend of service trade export of China and Japan. Figure 4 reflects that the actual value for Japan is significantly higher than the predicted value which shows the trend of Japan's service trade export is more positive than predicted. The

development of Japan's service trade industry is in good condition. There is little difference between the actual value of China's service trade export index and the predicted value according to figure 5. China's service trade industry develops steadily.

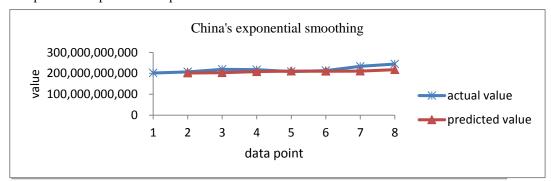


Figure 4: Japan's service exports exponential smoothing

Source: WITS-Country Profile

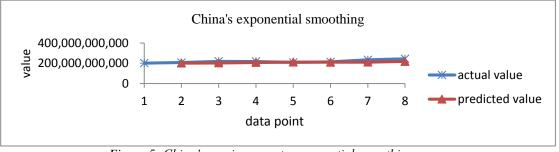


Figure 5: China's service exports exponential smoothing

Source: WITS-Country Profile

# 3.2. Trade balance (BoP, current US\$)

The trade balance is one of the important points of view to reflect mutual trade influence between two economies. The figures, trends, and properties of positive and negative of trade balance are all closely related to an economy's trade influence.

The trade balance between China and Japan is gradually shrinking according to figure 6. Relying on the advantages of its large economy, China has always been larger than Japan in service trade exports. However, Japan is closing the gap between the two countries in services trade exports. The role of China's advantage in economic size is gradually diminishing

which means China needs to make adjustments and upgrades in other aspects.

Although the gap is narrowing, it is undeniable that the trade balance is always positive. Numerous labors, abundant resources and advantageous geographical location have provided a good foundation for the development of China's service trade. While thinking about how to improve the structure of service products, China can also amplify these existing advantages. For example, although China has a large labor force, the quality is not high enough. We can strengthen educational attainment to improve workforce quality to provide a human base for the high-quality development of service trade.

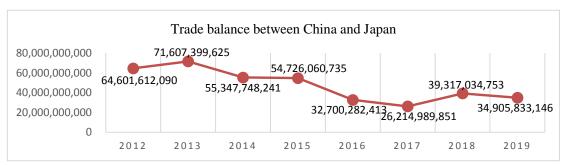


Figure 6: Trade balance (China's service export - Japan's service export) between China and Japan

Source: WITS-Country Profile

# 3.3. Trade in services (% of GDP)

The proportion of service trade in GDP reflects a country's economic structure. Service trade belongs to

the tertiary industry. The larger the proportion of service trade, the higher the level of economic development of a country to a certain extent.

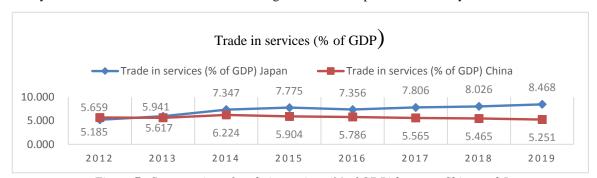


Figure 7: Comparation of trade in services (% of GDP) between China and Japan

According to figure 7, we can analyze the proportion of China and Japan's service trade in the country's GDP from the following aspects:

(1) From 2012 to 2019, Japan's percentage of service trade in GDP was consistently greater than China's. According to figure 7, Japan's percentage of service trade in GDP is more than 3 percent greater than China's in 2019. Based on national conditions, Japan is a strong manufacturing country but also a country lacking natural resources so Japan needs to import a large number of living materials from abroad. To maintain the balance of the international current account and insufficient domestic demand, Japan will also export a lot. In addition, Japan's international trade is developed as facing the sea on all sides. Therefore, the development of Japan's export trade has laid a good foundation for the export of service products. Moreover, Japan experienced the second industrial revolution which made Japan has a

Source: WITS-Country Profile good industrial foundation, and its industrial structure is better than China, so the tertiary industry accounts for a larger proportion. On the contrary, China has a relatively short period to develop the service industry, and its industrial base is weaker than Japan. Furthermore, because China has a huge population, it has a comparatively significant domestic market demand but a relatively small fraction of exports.

(2) In terms of the changing trend of the proportion of trade in services to GDP, the proportion of Japan has generally shown an upward trend, while China has shown a downward trend year by year (except 2012-2014) as figure 7 shows. This has a strong relationship with the country's development policy. For example, China implements the development strategy of industrialization and pays more attention to the development of manufacturing and the real economy. Although China's service trade export volume is

expanding year by year, the service sector's development rate is slower than the manufacturing industry while other industries are also developing rapidly. Japan is a developed country, which means the tertiary industry accounts for a large proportion of its industrial structure. In addition, the lack of demand in Japan's domestic market has made the Japanese economy very dependent on international trade.

### 3.4. Trade competitiveness (TC)

Trade Competitiveness Index is one of the commonly used measurement indicators in the analysis of international competitiveness. The formula is TC= (export value - import value) / (export value + import value). As a relative value to the total trade, this indicator removes the impact of fluctuations in macro factors such as economic expansion and inflation. No matter what the absolute volume of imports and exports is, the indicator is between -1 and 1.

Figure 8 shows that both in China and Japan, the service trade index competitiveness is less than 0 which means the import value of service trade in these two countries is greater than the export value.

(1) According to figure 8, Japan's service trade competitiveness is fully stronger than China's, as Japan's service trade competitiveness indices are all in [-0.15, 0], but China's service trade competitiveness index has recently been in [-0.4, -0.3). It shows that the competitiveness of China's service trade is weaker than Japan's. Japan's service trade competitiveness index is close to 0 and the import and export of Japan's service trade have been relatively balanced. However, China's service trade competitiveness is insufficient compared to Japan. The import and export of China's service trade are not balanced and need to be improved.

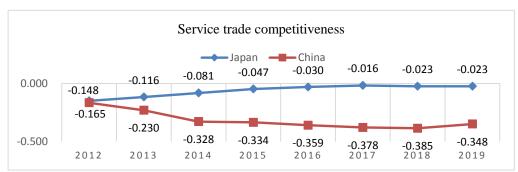


Figure 8: Comparation of service trade competitiveness between China and Japan (% of GDP)

Source: WITS-Country Profile

(2) From the point of view of the index trend as figure 8 shows, Japan's service trade competitiveness index is relatively stable and on an upward trend from 2012's -0.148 to 2019's -0.023 while the volatility in China is large, and it is on a downward trend from 2012's -0.165 to 2019's -0.348. Japan had well-controlled the import and export of service trade and made it into balance. While the import and export structure of China's service trade has always been irrational from 2012 to 2019. From 2018 to 2019, China's service trade competitiveness index showed a slight upward trend. However, China's service trade competitiveness continues much behind that of wealthy countries such as Japan.

# 3.5. The comparison of exports structure between China and Japan

Generally, the export structure of trade in services refers to the proportion of a country's exports of a kind of service in total services trade exports in a certain period. If the total exports of a certain type of service trade account for a large proportion of the total service trade, which shows that the export competitiveness of the service trade is relatively strong, and vice versa.

According to the availability and timeliness of the data, this paper mainly analyzes the proportion of China and Japan's transportation services, travel services, construction services, insurance financial services, telecommunications, computer and information services, intellectual property royalties services, and other commercial services in the export volume of service trade.

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Year/Service category	Transportation	Traveling	Construction	Insurance financial	Telecommunications, computer, and information services	Intellectual Property Royalties	Other business services
2012	19.30%	24.80%	6.05%	2.58%	8.04%	0.50%	25.30%
2013	18.16%	24.98%	5.17%	3.48%	8.26%	0.43%	27.63%
2014	17.43%	20.08%	7.03%	4.15%	9.22%	0.32%	31.45%
2015	17.66%	20.59%	7.64%	3.34%	11.80%	0.50%	26.72%
2016	16.13%	21.19%	6.06%	3.53%	12.65%	0.57%	27.64%
2017	16.26%	16.97%	10.52%	3.38%	12.19%	2.10%	26.96%
2018	15.85%	14.81%	9.97%	3.15%	17.65%	2.10%	26.20%
2019	16.22%	12.17%	9.87%	3.07%	19.01%	2.36%	25.88%

Year/ Service category	Transportation	Travel	Construction	Insurance financial	Telecommunications, computer, and information services	Intellectual Property Royalties	Other business services
2012	31.50%	10.70%	8.50%	3.11%	1.70%	23.40%	18.69%
2013	29.40%	11.22%	7.18%	3.50%	2.01%	23.48%	21.18%
2014	24.51%	11.64%	6.97%	5.49%	1.98%	23.12%	23.23%
2015	21.88%	15.43%	6.63%	7.43%	2.01%	22.55%	21.07%
2016	18.23%	17.68%	5.37%	8.02%	2.22%	22.50%	22.58%
2017	18.44%	18.23%	5.60%	8.40%	2.73%	22.53%	22.25%
2018	15.09%	21.94%	4.82%	7.29%	2.39%	23.72%	21.96%
2019	12.75%	22.43%	5.15%	8.08%	3.40%	22.82%	22.71%

(1) Table 2 indicates that China's share of other business services consistently ranked first from 2012 to 2019, though the proportion of the three traditional service industries has shown a downward trend year by year, their total share is relatively high, because China has attached great importance to the development of transportation, travel and construction industries since the reform and opening up, and formulated a variety of strategies to promote its development. In addition, the proportion of telecommunications, computer, and information services is rising, which means that competitiveness of the industry is increasing. What's more, other lines develop a little bit slowly, which only account for a small share.

(2) Table 3 shows Japan's transportation services, travel services, and other commercial services also account for a large proportion, but the prominent point is that the proportion of exports in its intellectual property fee industry has always been large, which means that the industry has a long history of development, a long development time, a solid foundation for the development and its strong competitiveness over the world.

(3) All in all, these analyses above suggest that China and Japan have certain similarities in the export structure of trade in services, and China is facing tremendous pressure from industrial upgrading and structural optimization. China should pay more attention to the development of modern service industries.

### 3.6. The index of export rise advantage

The so-called export growth advantage index refers to the difference between the export growth rate of a certain product in the industry and the total export growth rate of the industry, reflecting the transfer in the export advantage and strength of a country's product. The larger the index, the faster the exports of the products.

This article uses Di=Gi-Gt, where Gi represents the growth rate of countries' service trade exports, and Gt represents the growth rate of total exports of goods and services trade of various countries. When the export growth advantage index of a product is greater than 0, it indicates that the international competitiveness of the country's products is in an upward period; conversely, it indicates that its international competitiveness is in a period of decline. And the calculation results are shown in Table 4.

**Table 4:** The index of export rise advantage

Year/country	China	Japan	
2019	3.43	1.31	
2018	6.48	-3.04	
2017	0.91	2.69	
2016	3.22	1.34	
2015	2.51	-1.49	
2014	-0.12	-2.47	
2013	-4.66	2.63	
2012	-6.89	-1.53	

As table 4 shows, the export growth advantage index of China and Japan's service trade showed an upward tendency, which means the international competitiveness of both countries has improved to a certain extent. China, the largest developing nation in the world, has historically been dominated by trade in exports of goods, and the relative development of service trade is lagging. In recent years, the state has introduced several policies and measures to promote the development of service trade, which has promoted the rapid growth of China's service trade. China's growth rate was much higher than Japan's, which is related to the current stage of development of both China and Japan. However, Japan is steadily

transforming into a "service-oriented" society and economy as a developed nation.

# 4. Conclusion

To adapt to the new trend that service trade is becoming more and more important in international trade competition in the 21st century, China had paid a lot to improve its strength in the service trade industry such as preferential policies, low tariffs, and so on. These efforts have achieved good results: China's service trade exports have grown year by year and occupy a larger and larger share of the international market.

China is the most populous country in the world and rich in resources. The rapid development of China's service

trade industry is inseparable from the help of demographic dividends. However, there is still a big gap between China and developed countries like Japan in other aspects of the service trade industry. Although China's service trade has obtained fast development in recent years, they also have many problems (Sheng and Wang, 2012).

# **4.1. Problems in the development of China's service trade** 4.1.1. Development of the service industry is insufficient

Currently, in the international classification of industries, they are divided into three sectors: primary (agriculture, mining), secondary (processing industry), and tertiary (services or social sector) (Yavmutov Dilshod Shoimardonkulovich, 2020). As 3.2 described, the output of the service industry accounts for a small proportion of China's economic structure. Primary and secondary industries are diminishing in relevance, whereas tertiary service sectors are rapidly expanding in importance (Grünfeld and Moxnes, 2003). As an important part of the tertiary industry, service trade plays a vital role in a country's international trade competitiveness. Therefore, we should take some active measures to support the development of the service industry and increase the proportion of the tertiary industry in the economic structure.

# $4.1.2.\ Trade\ in\ the\ services\ sector\ structure\ is\ irrational$

China implements the strategy of becoming a strong industrial country and the manufacturing industry is very the developed. Furthermore, above-mentioned demographic dividend has had a significant impact on the growth of China's service trade business. Data has become an important foundation for the development of manufacturing materials and technologies due to the rapid development of current information technology (Wang, Yang, Wang, Sherratt, and Zhang, 2020). However, according to 3.4, labor-intensive sectors make for a considerable share of China's service trade export structure, while technology-intensive and capitalintensive service industries account for a tiny amount. Although this has brought great benefits to China, it can't maintain the long-term development of the service trade industry. China's service trade industry must be transformed and upgraded to maintain long-term highspeed development.

# 4.1.3. China's service trade competitiveness is at a disadvantage

The value of imports and exports determines service trade competitiveness. 3.3 shows that China's service trade competitiveness is at a disadvantage which means the import and export of China's service trade are not balanced. The import value of China's service trade is higher than the export value which leads to the fact that China's services trade competitiveness is below-average level. Therefore, China should take certain measures to encourage the export of service trade and promote the balance of imports and exports.

# 4.1. 4. The quality of the labor force in China's service industry is low

In China's service trade export structure, laborintensive industries account for a large proportion, which means that the quality of labor required is not high. High-quality labor is the support for the development of technology-intensive service trade industries (Li et al., 2021). Therefore, improving China's service trade export structure first requires high-quality labor.

## 4.2. Suggestions are put forward for reference

4.2.1. Expand opening up to the world and learn from international experience

Considering that developed countries have a long history and rich experience in the service industry, China can speed up the pace of opening up services. Like Japan, which has greatly deepened the openness of the insurance services industry and financial services industry, flexibly applied it by introducing advanced science, technology and management experience of other countries and combining it with its national conditions, finally formed a unique model to maintain its relative comparative advantages. Given this, we should vigorously attract foreign investment and develop service outsourcing. Through this, we can effectively alleviate difficulties such as shortage of funds, backward technology, insufficient management experience, and poor production efficiency, and then upgrade China's service industry (Heydari et al., 2019; 2020; 2021). Additionally, China needs to fully grasp the dual circulation pattern between the domestic international markets, boost international exchanges and cooperation, and raise the level of the domestic service sector's development.

### 4.2.2. Give play to the synergistic role of related industries

On the whole, China's exports of trade in goods are huge, and trade in services is still far from its development. Besides, the demand for related service trade generated by the favorable advantages of China's trade in goods exports is also huge. Jiang, L (2020) also pointed out that productive services organically combine trade in services. Consequently, we can take advantage of the chance to highlight the complementary roles of related industries, rely on trade in goods to advance trade in services, raise the level of trade in goods through trade in services, and further encourage the natural integration of trade in goods and trade in services.

# 4.2.3. Consolidate traditional trade in services and develop modern and innovative trade in services

As a global health and humanitarian crisis, the COVID-19 pandemic affected society at the macro and micro levels (Finsterwalder and Kuppelwieser, 2020). Service innovation to improve existing services and create new ones is one way of coping with the crisis (Heinonen and Strandvik, 2020). The Japanese government has formulated a series of policies to support new service sectors, and developed industries with the great inherent potential to exert its linkage effect to promote the development of related industries and greatly enhance its international competitiveness. Chen, J. (2021) stated briefly China's service trade was still in deficit, which indicated that the export of service trade isn't in a favorable position. In response to this, on the one hand, we should continue to consolidate China's favorable position in the traditional service trade industry, and use the advantages of resource endowments to reduce costs. On the other hand, China should vigorously develop modern and innovative service

industries with high added value such as knowledgeintensive, Technology-intensive and capital-intensive modern service industries to alleviate the imbalance in the export structure of China's service trade.

4.2.4. Attach importance to education and build a heterogeneous human capital system

Human beings are the most active elements of the productive forces, and human capital is increasingly becoming a key factor in economic development. Yingchang, X. (2021) recommended that it's essential to cultivate professional talents. In Japan, both the

government and corporate organizations attach great importance to the training of professional talents, such as the organization of employee training, and the study of expatriate employees abroad. For China, our government should increase investment in education, improve the level of education, promote the quality of education, cultivate all-round and high-ability talents, and promote the construction of a free-flowing talent market and the balance between talent supply and demand. Besides, the government should take efficient measures to hold back the severe brain drain.

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