

# The Status Quo of Service Outsourcing Development in Ningbo and the Countermeasures and Suggestions for Its Innovation and Development

Yanli Li

Department of Finance and Trade, School of Business, Ningbo Tech University, Zhejiang, China

**Abstract:** With the upgrading of consumption and the development of digital economy, China's economic development is changing with each passing day, which poses new challenges for the development of service outsourcing industry. As a model city for the development of national service outsourcing, Ningbo has experienced rapid development in service outsourcing in recent years. Based on the analysis of the current opportunities and difficulties faced by Ningbo service outsourcing, this paper proposes to leap to the high end of the service outsourcing value chain, enhance international competitiveness, build a sound talent system, and make good use of the "Belt and Road" construction opportunities as countermeasures and suggestions for promoting the development of Ningbo service outsourcing.

**Keywords:** service outsourcing; consumption upgrade; digital economy

## 1. Introduction

With the rapid development of new economic forms such as digital economy, the service outsourcing industry has ushered in new challenges and also new opportunities [1]. With the accelerated integration of digital technology into the real economy, China's economic model has changed, and the service-oriented trend of the manufacturing industry has accelerated, providing huge opportunities and broad space for the development of the service outsourcing industry.

At present, there is increasingly prominent trend of digitalization, platformization, and integration in the service outsourcing industry, and its position in the global value chain is increasing day by day. After the outbreak of COVID-19, the Ministry of Commerce put forward a new development idea of building a domestic big cycle as the mainstay, with domestic and international double

cycles promoting each other [2]. It is necessary to coordinate the promotion of offshore and onshore service outsourcing development, accelerate service outsourcing technology innovation, service model innovation and system mechanism innovation, promote the deep integration of service outsourcing and the real economy, and accelerate the transformation and upgrading of service outsourcing towards high technology, high value-added, high quality and high efficiency. For this reason, Ningbo's service outsourcing industry is also facing more challenges and opportunities [3].

## 2. The Innovation and Development Status of Ningbo Service Outsourcing

### 2.1 Ningbo Service Outsourcing is Growing Rapidly, But the Growth Rate is Declining

It can be seen from Table 1 that from 2009 to 2017, Ningbo's service outsourcing contract value increases from RMB 4.203 billion to RMB 29.085 billion, with an average annual growth rate of 27.35%. The value of offshore service outsourcing contracts increases from USD134 million in 2009 to USD1.812 billion in 2017. In nine years, the average annual growth rate reaches 38.48%, which is much higher than the growth rate of total value of service outsourcing contracts. Where, 2010 and 2014 have the fastest growth rate, 66.4% and 50.8% respectively. In general, the growth rate is on a downward trend, falling below 30% in 2016 and 2017.

After converting the amount of offshore service outsourcing contracts into RMB based on the annual average exchange rate of USD to RMB in the past years in Table 2, the proportion of offshore service outsourcing contracts is calculated. From 2009 to 2017, the amount of offshore service outsourcing contracts increases rapidly. The proportion rises from 21.71% in 2009 to 42.11% in 2017, a cumulative increase of about 20 percentage points in 9 years.

**Table 1.** The total amount of service outsourcing contracts and offshore service outsourcing contracts in Ningbo over the years.

Year	Total service outsourcing contract value (RMB100 million)	Growth Rate%	Offshore service outsourcing contract value (USD 100 million)	Growth Rate%	Offshore service outsourcing contract value (RMB 100 million)	Proportion
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2009	42.03	34.7	1.34	31.4	9.13	21.71
2010	65.4	40.6	2.72	66.4	18.01	27.54
2011	85.64	30.9	3.81	40.1	25.18	29.41
2012	114.56	33.8	5.32	39.8	33.25	29.02
2013	144.03	25.7	7.67	44.1	46.56	32.32
2014	140.64	30.1	9.10	50.8	55.06	39.15
2015	186.22	32.4	12.79	40.6	81.80	43.93
2016	211.52	27.8	14.53	29.6	96.54	45.64
2017	290.85	25.8	18.12	24.7	122.47	42.11

Note. The data comes from the website of Ningbo Municipal Bureau of Commerce. Where, the unit of data in 2017 is RMB 100 million, and the dollar amount is calculated according to the growth rate. The offshore service outsourcing contract amount is converted from USD to RMB, and the annual average exchange rate published by the Bank for International Settlements is used as the conversion rate.

**Table 2.** Annual average exchange rate of USD against RMB over the years.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Annual average exchange rate	6.81	6.622	6.61	6.25	6.07	6.05	6.396	6.6444	6.7587

Data source: Bank for International Settlements

## 2.2 The Proportion of KPO Continues to Grow

It can be seen from Table 3 that in the overall composition of Ningbo's service outsourcing, ITO, BPO and KPO each have a relatively fast growth rate. Where, ITO increases from USD1.716 billion in 2009 to USD12.145 billion in 2016, with an average annual growth rate of 32.25%; BPO increases from USD2.6 billion in 2009 to USD5.742 billion in 2016, with an average annual growth rate of 11.98%; KPO increases from USD1.01 billion in 2011 to USD4.242 billion in 2016, with an average annual growth rate of 33.48%.

Among the three types of service outsourcing, ITO has the largest amount and accounts for the largest proportion, BPO amount is in the middle, with a medium proportion, KPO amount is the smallest with the smallest proportion. However, seen from the perspective of growth rate, KPO has the fastest annual growth rate and the proportion growth rate is accelerating. ITO has low average annual growth rate, with its proportion getting smaller and smaller. The proportion of KPO in the city's completed outsourcing execution value increases from 11.3% in 2011 to 18.34% in 2016; the proportion of KPO in offshore service outsourcing increases from 9.20% in 2012 to 15.52% in 2016, a very rapid increase.

**Table 3.** Ningbo service outsourcing structure Unit: USD100 million.

Year	2009	2010	2011	2012	2013	2014	2015	2016
ITO (100 million)	17.16	24.87	35	50.06	77.78	75.76	93.50	121.45
ITO Offshore ITO	/	/	/	3.26	4.85	5.94	8.20	9.78
BPO (100 million)	26	39.4	40.63	54.08	45.39	42.68	58.72	57.42
Offshore BPO	/	/	/	1.57	1.88	1.92	2.74	4.12
KPO (100 million)	/	/	10.01	10.41	20.86	22.20	32.20	42.42
Offshore KPO	/	/	/	0.49	1.04	1.45	1.85	2.55
KPO proportion in the city's completed outsourcing execution value	/	/	11.3%	9.10%	14.50%	15.80%	17.30%	18.34%
KPO proportion in offshore service outsourcing	/	/	/	9.20%	13.40%	18.60%	14.40%	15.52%

Note: The data comes from the website of Ningbo Municipal Bureau of Commerce.

## 2.3 The Number of Enterprises Engaged in Service Outsourcing in Ningbo Has Increased and the Number of Employed Workers Has Increased

From 2009 to 2016, the number of service outsourcing companies in Ningbo continues to grow. As shown in

Table 4, it increases from 394 in 2009 to 1,275, a cumulative increase of 881. The number of employed workers in the service outsourcing industry in Ningbo has also continued to grow. From 2009 to 2016, it increases from 17,200 to 49,900, a cumulative increase of 32,700.

**Table 4.** Number of service outsourcing companies and employees in Ningbo over the years.

Year	Number of new enterprises this year	Total number of enterprises	Number of newly employed workers this year	Total employment
2009		394		1.72
2010	126	521	5343	2.25
2011	81	608	3220	2.57
2012	115	723	3241	2.91
2013	206	928	7355	3.64
2014	133	1065	4723	4.14
2015	135	1201	5276	4.67
2016	74	1275	3498	4.99

Data source: website of Ningbo Municipal Bureau of Commerce

2.4 The Source of Awarded Contracts is Wide

In 2011, Ningbo's service outsourcing sources came from 82 countries and regions; in 2012, the source of offshore service outsourcing came from 123 countries and regions, of which 8 countries and regions had outsourcing execution value exceeding USD 10 million. In particular, the outsourcing execution value of Hong Kong and the United States exceeded USD50 million. In 2013, the source of offshore service outsourcing came from 125 countries and regions, of which 13 countries and regions had outsourcing execution value exceeding USD10 million, an increase of five countries and regions over the previous year, accounting for 66.1% of the city's offshore outsourcing execution value. Where, Hong Kong's outsourcing execution value ranked first in the city's offshore execution value, with the offshore execution value exceeding USD 100 million, accounting for 17.8% of the city's total. In 2014, the city undertook offshore service outsourcing businesses from 134

countries and regions, an increase of 9 over last year. Where, 19 countries and regions had offshore execution value exceeding USD 10 million, an increase of 6 over last year.

It can be seen from Table 5 that Ningbo undertakes increasingly scattered service outsourcing in general, and the source is increasingly wider. Not only does the number of sources increase year by year, but also there are more and more sources above the designated size each year, increasing from 8 countries and regions with more than USD 10 million in 2011 to 23 countries and regions with more than USD 10 million in 2015. Seen from the perspective of national and regional sources, it is mainly the United States and Hong Kong. With the advancement of the "Belt and Road" policy, more and more countries along the "Belt and Road" also get involved, becoming the main service outsourcing sources for Ningbo.

Table 5. Number of international and regional sources of service outsourcing undertaken by Ningbo over the years.

Year	2011	2012	2013	2014	2015	2016
Number of countries and regions	82	123	125	134	143	131
Main contract awarding countries/regions	United States, Germany	Hong Kong, United States	Hong Kong, United States	Hong Kong, United States	Hong Kong, United States	Hong Kong, United States, countries and regions along the "Belt and Road"

Data source: website of Ningbo Municipal Bureau of Commerce

3. Ningbo Service Outsourcing is Facing New Development in China's Economy

3.1. The Connotation of Service Outsourcing Expands Further

The early definition of service outsourcing is economic activity in which "the enterprise separates the basic, common, non-core IT business and opportunistic IT business process originally provided by itself in the value chain, and then outsources it to the external professional service provider for completion". The 2015 edition is defined as intermediate room economic activity with sustained investment in which "professional service providers provide services to the organization through contracts to complete the organization's existing or new business processes". The 2018 edition is defined as "a productive business activity that creates and enhances value for organization, in which, professional service

providers complete the internal service activities or service processes customized by the organization in a contract based on the commission or authorization of organizations including enterprises, governments, societies". It can be seen from this that the connotation and extension of service outsourcing have changed profoundly with the further transformation and appreciation of the industry, and the business scope has become wider and wider. Service outsourcing has become an independent "production and operation activity", and the covered business scope goes deep into more industries in the national economy.

3.2. China's Consumption Upgrade Provides Assistance to the Development of Service Outsourcing

In recent years, China's total social consumption has grown rapidly, which is mainly reflected in service consumption. Domestic service consumption has grown rapidly. Therefore, business process-related service

outsourcing (BPO) is greatly promoted, and service outsourcing business has significantly greater growth than offshore business, which promotes the adjustment of the proportional structure of onshore and offshore service outsourcing business.

Consumption upgrades will also further promote the diversified development of service outsourcing formats. Liquid companies such as new retail, major logistics, high-end manufacturing, and major health will further promote the active transformation of traditional service companies, with the differentiation of services between companies becoming more and more obvious.

Consumption upgrades will also create a positive impact on key service outsourcing industries. For example, the real estate industry, transportation warehousing and postal industry, accommodation and catering industry, information transmission, software and information technology service industry, manufacturing industry, culture, sports and entertainment industry will be simultaneously affected.

### 3.3. The Development of the Digital Economy will Accelerate the Development of Service Outsourcing

The rapidly developing digital economy, as a part of knowledge-intensive high-end services, is providing huge opportunities for the transformation and development of service outsourcing. The digital economy will promote the digital transformation of industries and will further promote the upgrading of information technology outsourcing. The field of service outsourcing will also change accordingly. High-end knowledge process outsourcing will develop more and more rapidly. Some new business opportunities, especially cloud services, digital services and other opportunity data services are changing the entire ecology of service outsourcing faster and faster. In addition, China's success in the latest IT technology will promote the globalization of China's solutions and be accepted and adopted by more and more countries.

### 3.4. The Service Industry will Increase Its Opening to the Outside World and Promote the Upgrading of the Service Outsourcing Industry

As China enters the middle and late stages of industrialization, the development of the service industry gets increasingly important, and the development of the service industry is also expanding. The expansion of the service industry will, on the one hand, further attract foreign investment projects to land in China and promote the development of international service outsourcing. Foreign-funded enterprises are an important part of China's service outsourcing and also the main position to undertake international service outsourcing. The expansion of the service industry will inevitably promote the development of China's international service outsourcing. The expansion of the service industry will also further promote the rapid development of the producer service industry, and will promote the development of China's producer service industry, thus providing better services for the production and operation

activities of enterprises with better insourcing capabilities.

### 3.5. The Servitization of the Manufacturing Industry Provides New Growth Points for Service Outsourcing

Currently, the boundaries between manufacturing and service industries have become more blurred. Many traditional manufacturing enterprises have accelerated the pace of product innovation and upgrading, and have gradually become "intelligent manufacturing" enterprises. Product research and development, design, and service account for a large part of the output. In the past, they provided mass production to customers, but now they provide "solutions". Many traditional R&D, software outsourcing companies do not only provide a development contract, but also provide a complete set of solutions. The boundaries between manufacturing companies and service companies have become blurred and the trend of integration development is becoming increasingly prominent.

Manufacturing industry servitization is the direction of industrial transformation and upgrading. The servitization of the manufacturing industry will make a breakthrough in both quality and quantity for China's service outsourcing industry in the future. In the future, the integrated development of manufacturing and the leading high-end service industry represented by service outsourcing will produce superposition, aggregation, and multiplication effects with broad prospects and huge potential. In the process of transformation and upgrading, the manufacturing industry will inevitably release huge re-pressing business, thus achieving a double breakthrough in quality and quantity for China's service outsourcing industry in the future. In the future, China's service outsourcing industry will usher in huge strategic opportunities and will become the most eye-catching new growth pole in the international outsourcing market. Service-oriented manufacturing will become a new growth pole for the transformation and upgrading of service outsourcing.

## 4. Problems Faced by the Innovation and Development of Ningbo's Service Outsourcing Industry

### 4.1. Service Outsourcing Companies are Mainly Small and Medium-Sized

Regardless of the national data or the status quo of Ningbo, SMEs account for 99% of the total number of service outsourcing companies, and most of the related companies are mainly engaged in domestic businesses. A few companies set up delivery centers abroad and participate in international mergers and acquisitions, with comprehensive benefits and internationalization degree mainly located in the mid-low end of the value chain, and high-end service supply capacity is weak. Most companies lack overall solutions, have weak supply capabilities, lack overall problem-solving solutions, system services and integration capabilities, with drawbacks in business standardization. Companies have weak independent innovation capabilities, insufficient

innovation investment, have difficulty in enjoying national major bidding project policies and participating in major national scientific research projects, which have restricted the improvement of enterprises' technological innovation capabilities.

#### 4.2. Rising Overall Costs Have Increased the Burden on Enterprises

The labor cost in service outsourcing accounts for 60%-70% of the total enterprise cost. Since 2010, service outsourcing has shifted from first-tier cities to second- and third-tier cities, but the cost advantages of second- and third-tier cities are also declining. The labor shortage in Ningbo and the constantly high real estate prices in recent years have led to an increasing cost burden for enterprises. Compared with Southeast Asian countries, there are weaker and weaker advantages in undertaking service outsourcing.

#### 4.3. The Supply of Mid-High-End Talents is Seriously Insufficient

Mid-high-end talents are the main force deciding the competitiveness of enterprises in undertaking international service outsourcing. However, due to the difficulty in training talents in the industry and the inadequate salary of enterprises, it is difficult for the service outsourcing industry to hire outstanding mid-high-end talents, resulting in insufficient talent supply, which is un conducive to the industry development.

#### 4.4. The Public Service System is Relatively Weak

The country has insufficient construction of service outsourcing platforms, industry associations lack influence in the international market, formulation of industry standards is imperfect, and intellectual property service systems are insufficient, all of which restricts the development of the service outsourcing industry.

### 5. Countermeasures for the Innovation and Development of Service Outsourcing in Ningbo

#### 5.1. Led by Innovation-Driven Approach, Promote the High-End Leap of Service Outsourcing Value Chain

Encourage outsourcing companies to increase investment in innovation, and actively innovate in technology research and development, delivery models, business processes, and operation management. It is necessary to strengthen the construction of innovation capabilities in service outsourcing parks, give play to the park's corporate agglomeration function and industry demonstration leading role. In addition to focus on supporting the construction of service trade parks, efforts should also be made to strengthen the construction of public service platforms. There is need to increase support for key cultural export enterprises above the municipal level; strengthen the construction of service outsourcing standard system, actively connect with the standards of developed countries, and formulate a number of internationally leading standards in key areas where China has comparative advantages [4].

#### 5.2. With Enhancing the International Competitiveness of Enterprises as Orientation, Build an Industrial Ecosystem of Coordinated Development, Mutual Benefit, Win-Win Result and Orderly Competition

Encourage SMEs to participate in international competition, build the overall brand of China's service outsourcing; reduce taxes and overall costs, and further optimize the business environment. In addition, efforts should be made to expand the scale of the service trade industry. With the construction of a national service outsourcing model city as the main foothold, give full play to the leading role of service outsourcing in service trade, further accelerate the development of the service outsourcing industry, and drive high-tech, high-value-added service exports such as computer and information services, consulting, R&D, design, testing, etc. At the same time, it is necessary to consolidate the scale advantages in the traditional areas of service trade, and further develop key areas of service trade such as international transportation, tourism, and engineering.

#### 5.3. Speed up the Construction of Service Outsourcing Talent System

Establish a diversified training mechanism, combine corporate training and third-party training, school training and corporate training, online training and offline training, build multi-channel and multi-faceted talent system construction methods to cultivate mid-high-end service outsourcing talents. By improving the personnel system and talent introduction policies, attract high-end technical and management talents to settle in Ningbo, and supplement the service outsourcing talents for enterprise development through multiple channels. After attracting talents, it is also necessary to strengthen the implementation of the talent care policies, and strive to keep talents in the company and in the service outsourcing industry.

#### 5.4. Promote Offshore Development through Onshore Business and Promote the Integrated Development of International and Domestic Service Outsourcing Markets

Create a new pattern of service outsourcing with internal cycle as the mainstay and mutual promotion of domestic and international double cycles. It is necessary to direct and encourage outsourcing companies to serve the domestic market, train professional and branded quality service providers, thus laying a solid foundation to better undertake offshore outsourcing. Efforts should be made to build independent brands to help improve Ningbo's comprehensive competitiveness in the service outsourcing market. Efforts should also be made to establish a service outsourcing brand with Ningbo characteristics, and promote the innovation of Ningbo enterprises through "Internet +", thereby enhancing competitiveness.

#### 5.5 Take the "Belt and Road" Initiative as an Opportunity to Form A Global Market Strategic Layout for Two-Way Expansion in Developed and Developing Countries

Accelerate the service outsourcing market layout along the “Belt and Road”, expand the international market space, and promote the “going global” of Chinese technology, standards and brands. The international situation has gradually become tense due to the epidemic, but China is more closely linked to the countries along the “Belt and Road” due to the epidemic. In this context, it is necessary for Ningbo service outsourcing enterprises to maintain a high degree of close ties with countries along the “Belt and Road”, facilitate bilateral service trade exchanges, and promote the rapid development of service outsourcing [5].

## 6. Conclusion

While Ningbo's service outsourcing industry is developing rapidly, the domestic economy is also developing rapidly, bringing new opportunities and challenges to the service outsourcing industry as a whole. Faced with new opportunities and challenges, Ningbo service outsourcing companies need continuous improvement to adapt to new changes and should take the initiative to respond to new changes. Ningbo service outsourcing companies need continuously strengthen R&D and strive to leap to the high end of the service outsourcing value chain. Also, they need to continuously improve their international competitiveness. SMEs must make good use of various platforms built by the government to develop together and build the overall brand of Ningbo. They also need strive to build service

outsourcing talent system; focus on internal cycle, and promote the development of offshore service outsourcing through onshore business on the basis of mutual promotion of domestic and international double cycles. Finally, it is necessary to make good use of the opportunity of "Belt and Road" construction to promote the service trade along the "Belt and Road" countries and enable rapid development of service outsourcing.

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