

China's Service Outsourcing Industrial Cluster Development

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Abstract

China's service outsourcing industry is developing rapidly, and at present, the service outsourcing clusters such as Bohai Rim, the Yangtze River Delta and the Pearl River Delta have been formed. However, at the current stage, during the cluster development process of China's service outsourcing industry, there exists many problems, such as the shortage of talents, the imperfect protection measures for intellectual property rights, difficulties in venture capital financing, and scattered layouts, prominent homogenization problems, as well as the lack of strategic planning layout of coordinating the local and the whole as well as the present and the long-term future and the constraints on the cluster effect. To construct China's service outsourcing industrial cluster, countermeasures should be implemented such as enhancing intellectual property rights protection, improving the talent supporting system, perfecting the venture capital management, and consummating the co-existence mechanism of regional service outsourcing industry, developing specific regulations as well as founding an industrial association and so on.

Key words: Industrial cluster; Service outsourcing; Industrial agglomeration

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INTRODUCTION

Since the 1990s, with the in-depth advancing of economic globalization and the fast development of information

technologies, service outsourcing has become the hot spot of the new international industrial transfer and the important engine for world industry structure modification, and has also influenced the status of countries in the international industrial chain and value chain. More and more enterprises have begun to pay more attention to the development of the core business, while designating the non-core business to other professional companies through the way of "outsourcing". Its essence lies in taking the high-profit link in the value chain, compressing the operational scope, and allocating the limited resources in the enterprise's advantageous fields to give full play to the enterprise's competitive advantages and lower its operational cost.

China, as one of the liveliest developing countries, has become a competitive undertaking place for service outsourcing industry. Under the powerful guidance and support of national policies in recent years, its development of service outsourcing industry speeds up, its construction of service outsourcing industry zone expedites, and its ability of undertaking service outsourcing industry is improving constantly. But now, China's service outsourcing clusters still remain on the primary stage and how to accelerate China's international services outsourcing with the advantages of the clusters will become an important topic.

Currently, China's outsourcing industry has formed the service outsourcing clusters such as Bohai Rim, the Yangtze River Delta and the Pearl River Delta. The cities in each cluster develop via collaboration. The participation in the international competition with the cluster taken as the whole has largely improved the capacity of the outsourcing industry in China in the aspects such as commercial communication, product delivering, cost control and risk prevention. In addition, the mid-western regions and northeastern regions begin to witness breakthroughs in the development of service outsourcing industry, especially Chengdu, Xi'an, Chongqing, Shenyang, Harbin and Daqing where the industry is

experiencing a rapid development momentum in recent years, preliminarily forming the industrial clusters of the central western regions and the northeastern regions service outsourcing clusters. A good pattern has been formed in [China's service outsourcing industry], which is led by five clusters with full development of other regions. But there are still some problems that cannot be neglected. In this background, this study is quite necessary that it helps to reach a healthy and stable development for China's service outsourcing industrial cluster, and discovers issues in the cluster development process of China's service outsourcing industry and proposes the improvement strategies.

1. THE REVIEW OF FOREIGN AND DOMESTIC STUDIES

1.1 The Review of Foreign Studies

As for the industry cluster, the earliest relevant research was conducted in 1776 by Adam Smith, a British classical economist, who mentioned "division of labor is the source of the increase of the national wealth" in his work "The Wealth of Nations", and he thought that two important factors which influenced economy respectively were: Price and division. He divided the division of labor into three levels: The first level is the division of labor within enterprises, the second level is the division of labor among enterprises, and the third level is the industrial division or social division of labor.

In 1937, Kos first put forward in "On the Nature of Enterprises" that the increase of enterprises within industrial clusters would to some extent lower locational marginal transaction cost, which helped stabilize the enterprise transaction relationship and range. Moreover, the relatively close distance between the enterprises within industrial clusters is beneficial to symmetry of enterprise information, reduces opportunistic practice in transaction and effectively saves the enterprises' expense on searching market information so as to finally reduce transaction cost greatly. The transaction cost theory can explain better the reason of industrial cluster from the point of cost and it is necessary to embark on promoting the formation of cluster with respect to reducing the transaction cost.

"Nation Competition Advantage", written by Michael Potter in 2002, discusses the primary motivation for the formation of industrial cluster by constructing "the Diamond Model" from the perspective of enterprise competition strategies. "The Diamond Model" mainly includes five factors, which are production environment and demand, the performance of related and supporting industry, enterprise strategies, industry structures and competitors in the same industry (Research and Markets, 2012).

1.2 Review of Domestic Studies

Service outsourcing clusters include a series of relative service industrial subjects and significant competitive subjects, and the assembling degree is affected greatly by the service resources, policies, infrastructures, competition and the relative concentration condition of customers in certain areas. Many scholars have proposed various opinions on the basis of investigations and scientific researches for certain areas:

In 2011, in "Reflection on and Prospect of the Cluster View-based Theories of Service Outsourcing", Yang Kaijun put forward that with the transfer of global industries, China's fast development of economy and the improvement of Chinese government's service-epiboly environment of policy, especially the improvement of telecommunications and the infrastructures and the surroundings of hardware and software of IT, some cities have established various kinds of service-outsourcing industrial parks one after another, and the trend of agglomeration of development of service outsourcing industry has appeared. Based on this, service outsourcing and industrial cluster should be combined to form service outsourcing clusters, and to promote economic development (Yang, 2011).

In 2011, in the "Service Outsourcing Industry Creative Clusters Development Issues Dissection", Mao Caisheng, based on the prospect of Creative Cluster, through the analysis on the existing problems of single construction theory, low industry agglomeration degree, insufficient talent supporting system, difficult in investment and financing in the Service Outsourcing Industry in China zone, brought the conclusion of the realistic predicaments in lack of creative system in service-outsourcing industrial parks, and then raised the countermeasures of exerting the effect of the government's guidance and support to promote the development of Service Outsourcing Industry Creative Clusters (Mao, 2011).

In 2012, Ji Cheng, Xu Fuyuan and Yu Jun have established C-GEM Model and its indicator system in the "Evaluation of Competition of Service Out-sourcing Industrial Cluster Based on C-GEM Model - Take Wuxi as the Example", and then they have made a comprehensive evaluation and comparative analysis on the changes of competitiveness of service outsourcing clusters in Wuxi since 2007 (Ji & Xu, 2102).

In 2012, in "Research on Development of Service Outsourcing Industry Based on the Industrial Agglomeration—Take Economic and Technological Development Zone in Langfang as the Example", Xu Xinwen has applied the theory of diamond model, SWOT analytical method, the method of system dynamics, game theory and other analytical methods and algorithm models to have a focused research on the problems of influencing factors, dynamic mechanism and development patterns, etc. of service outsourcing development (Xu,

2012) from the perspective of industrial agglomeration with the service outsourcing industry in the Economic and Technological Development Zone in Langfang as the research object.

1.3 Domestic and Overseas Research Evaluation

Foreign scholars' researches are relatively early, which lay a foundation for related theories of industrial cluster; the domestic scholars' researches on this topic are mostly focused on fixed small areas such as Langfang and Wuxi, making correspondent developing strategies based on the city's specific advantages and relative shortages. This paper analyzes the development of service outsourcing industrial cluster at home and gives countermeasures based on the nationwide angle.

2. THE CURRENT DEVELOPMENT SITUATION AND EXISTING PROBLEMS OF CHINA'S SERVICE OUTSOURCING INDUSTRIAL CLUSTERS

2.1 The Current Situation of China's Service Outsourcing Industrial Cluster

In recent years, our country's service outsourcing industry has been developing rapidly. In 2014, China's economy developed into the new normal situation, and new technology, new business model, new application mode in service outsourcing field emerged continuously. Service outsourcing industry is transforming gradually from the quickly developed scale orientation to both the quantity orientation and the quality orientation. In 2014, the contract amount of the service outsourcing of our country exceeded hundreds of billions dollars for the first time. The enterprises of our countries have signed 204 thousand services outsourcing contracts in total, with contract value and execution value of 107.21 billion dollars and 81.34 billion dollars respectively, with year-on-year growth of 12.2% and 27.4 respectively. China accumulatively provided posts for more than 4 million university students, and the proportion of knowledge process outsourcing has steadily risen (The Rapid Development of insufficient talent, para.5, 2015).

The service outsourcing clusters in our country are distributed in the economic circles as follows, and each cluster has its own characteristic development of service outsourcing industry.

(a) The software and information service outsourcing industry cluster of Bohai Rim

The open characteristics of the economic circle around Bohai is very prominent, among which the coordination function of organization and management participating in the activities such as the world's political and economic life, culture, international communication is enhancing step by step. Beijing is transforming from the center of our

country's politics, economy and culture to the East Asian political and economic center. Relying on the advantage of the important port in the North and the base of the strong light industry, Tianjin continuously develops import and export trade. Dalian has become the service outsourcing center of Northeast Asia with its forerunner advantage of software and information service outsourcing and is expanding its service scope step by step.

Depending on the inherent strong strength of software industry and the advantage of gathering heavy industries and light industries in the economic circle, Bohai Rim software and information service outsourcing industry cluster is developing associated software and information service outsourcing sectors; in addition, service industries gather here and demands for governmental decisions are centralized; so, it will be an important direction in the future to develop software and information service outsourcing related to governmental services and other services.

(b) The financial outsourcing industrial cluster and software and information service outsourcing industry cluster of the Yangtze River Delta

The Yangtze River Delta economic area is the one with the highest degree of urbanization, the densest urban distribution and the highest level of economic development in China. Yangtze River Delta has the advantages of good commercial trade atmosphere, excellent commercial environment, high level of internationalization, strong brand consumption market and strong private economy, at the same time, forms a structure of "one head and two wings" (Shanghai is the center, Nanjing and Hangzhou are its sub-centers), and now becomes a considerable scale of software and information service outsourcing industry cluster. Moreover, taking the advantages of Shanghai as the international financial center and the international shipping center, Yangtze River Delta Industrial Cluster is witnessing huge development potential in the field of financial background service outsourcing and manufacturing-associated service outsourcing, on the basis of its foundations of the advanced software industry and outsourcing businesses towards Japan.

(c) Software and information service outsourcing industrial cluster in the Pearl River Delta

As the first mover of the policy regime, Pearl River Delta Industrial Cluster has accumulated economic advantages and also enjoys the natural advantage of its highly cultural integration with those in Hong Kong, Macao and Southeast Asia. Relying on in-sourcing advantages over Southeast Asia, Pearl River Delta Industrial Cluster endeavors to develop brands and gradually build a software and information service outsourcing base facing Southeast Asia.

(d) Software and information service outsourcing industry cluster of the Central and Western Regions

In recent years, the economic development of Chengdu, Xi'an, Chongqing, Wuhan and other cities in

the Central and Western regions is relatively rapid. The economic circles in Chongqing and Chengdu as well as the Guanzhong urban agglomeration taking Xi'an as the center, coupled with the formation of the regional cluster development patterns of Wuhan, Hefei, Changsha and Nanchang in the middle part, will further accelerate the economic development of the central and western regions, thus becoming the fourth growth pole, which will lead to the rapid development of software and information service outsourcing sectors in the central and western regions. In addition, about 1/3 model cities for service outsourcing in China are located in the Central and Western regions, which will drive the development of the software and information service outsourcing sectors there.

(e) Industry in the Northeast Information and Software Service Outsourcing Industrial Cluster

As the reform of the old Northeastern industrial base gradually deepened, some cities like Shenyang, Harbin and Daqing have made a quite great progress in the development of software and information service outsourcing sectors, as well as international services outsourcing of petroleum and petrochemical industry. With geographical advantages (adjacent to Japan and South Korea), cost advantages, rich natural resources and talent education resources, excellent achievements have been made in these cities in the development of outsourcing towards Japan and South Korea, petroleum and petrochemical industry services outsourcing, and informationization to promote industrialization development.

2.2 The Existing Problems of the Development of Service Outsourcing Industrial Cluster

2.2.1 Imperfect Protection Measures of Intellectual Property Rights

For a long time, the intellectual property right problem is always the main factor in the development of Chinese service outsourcing. There always contains trade secrets and copyrights in the service outsourcing projects, but the weak awareness and incomplete measures of China's intellectual property right protection have affected investors' confidence to some extent, which is bad for the development of outsourcing enterprises in China and the upgrade of the industry.

In recent years, there is a tendency to increase of intellectual property rights disputes. This reflects that the enterprises begin to realize the importance of intellectual property right on one hand; on the other hand, it sounds the alarm for the government. That is to say, how should the government perfect the protection measures of the intellectual property rights to prevent nipping in the bud; and how should the enterprises protect their intellectual property rights from being violating.

2.2.2 Service Outsourcing Industry in China

Overall, China service outsourcing industrial cluster lacks mid-end or high-end skilled professionals and

management personnel in the aspect of internal service outsourcing. At present, the enterprises of Chinese service outsourcing are not only short of the leading intermediate technical and managerial personnel of project manager type, but also short of the commanding senior technical and managerial personnel of system architect type who are familiar with languages and cultural backgrounds of the clients, proficient in the rules of international outsourcing industry and have the capability to expand foreign markets to a greater extent. Moreover, under the influence of current situations including craze for going abroad and "the peacock flying to the southeast", the service outsourcing clusters of the Central and Western regions of China and Northeast China faces more serious problem of talents. This, to a certain extent, restricts the service outsourcing enterprises from extending a high-end field (Leng, 2012).

2.2.3 The Management of Risk Investment Remains to Be Perfected

Some enterprises have the risk of capital chain rupture. There are over 3,000 Chinese service outsourcing enterprises. Most of small enterprises are in danger of closing down with small scale, low exploiting ability and financial difficulty. In the areas with relatively advanced economies such as Pearl River Delta, Yangtze River Delta and the Bohai Rim, risk financing is relatively easier, while this problem is relatively serious in Mid-western and northeast cities. Many the service outsourcing enterprises are still in their start-up phase with a smaller scale, and in a short term there will be some enterprises exiting the market because of difficulty in running; some software enterprises will be in a panic with "weak demand, difficult survival, not knowing what to do"; some enterprises with strength will take the opportunity to grow, but yet there will be no large-scale mergers and acquisitions activities.

2.2.4 Co-Existence Mechanism of Regional Service Outsourcing Industry Remains to Be Improved

In service outsourcing industrial cluster, co-existence mechanism of regional service outsourcing industry is a guarantee of sustainable development. It needs to give full play to the regulating role of the market to achieve comparative advantages. Moreover, the optimization of developing environment of regional development of service outsourcing industry, including the government, the cooperation of regional associations of development of service outsourcing industry and the social organizations and associations of citizens as a supplement should act in concert. The support system of market information technology, the education system, the support system of finance and the support system of law are all key points to the symbiotic mechanism (Kang, 2011).

2.2.5 Scattered Distribution Homogenization Problems

According to industry cluster theory and the experience of developed countries, industry cluster can generate economic resonance effect; as a kind of industry, service outsourcing should stress scale effect. But now, the

developing layout of the service outsourcing of our country is a little scattered, and it especially lacks the strategic planning which coordinates the whole with the part and the present with the future in the northeastern, industrial clusters of the central western regions, where the cluster effect has been restricted to a relatively large extent; and the difference in strategic positioning among various cities of service outsourcing demonstration base is small, with severe homogenization, and each city seldom integrates the local situation of actually fundamental resources when planning the layout, and has not fully played out the respective comparative advantages, with products and services lacking features; at the same time, the investment attraction goals are very similar everywhere, attaching too much importance to introducing large enterprises and divorcing from the local conditions, which is hard to ensure an effectively sustainable development (Kang, 2001,1 pp.2-16).

2.2.6 The Lack of the Guide of Industry Associations

China lacks national industry associations and industry organizations of the service outsourcing industry to guide, and the mature and effective undertaking platform and channel of service outsourcing have not yet been formed. Since multiple competent authorities propel and guide the industrial development together in our country, the industrial organizations, especially the nationwide industrial associations similar to NASSCOM in India, are hard to establish. Though some cities of China have dissolved the Industry Associations which were "overturned" and rebuilt on the basis of original executive departments and agencies, there still exist the problems that include lack of service consciousness and competence in different degrees, because of the restraining factors, such as history, system and operational mechanism, etc. Meanwhile it also contributes to the lack of studies on the service outsourcing market and the industrial development laws and the platforms and channels that carry on international offshore services haven't been well set up yet.

3. THE DEVELOPMENT OF SERVICE OUTSOURCING INDUSTRIAL CLUSTER

3.1 Enhancing Intellectual Property Rights Protection Improve Related Laws and Regulations

It needs the joint effort of government and enterprises to protect intellectual property rights. So we must perfect the intellectual property rights protection related to related laws and regulations, guide the enterprises to make sure the affiliation of the intellectual property rights in service outsourcing, establish an effective risk prevention mechanism, and improve the commercial secrets' protection which may be involved in the service outsourcing activities to create a good legal environment

for the development of service outsourcing business. We should establish and perfect the development and study center of intellectual property rights and the expert consultation board of the intellectual property rights bureau, and establish and enhance the comprehensive public service platform offering such services as trading and depositing the intellectual property rights and design achievements of creative design industry in order to promote the effective circulation of intellectual property and design achievements. Encouraging and supporting citizens and legal persons to start businesses by making capital contributions with intellectual property rights; encouraging marking the name of the design agency and the designer on related items such as products and packages; encouraging obliges safeguard their own legitimate rights and so on.

3.2 Improve the Talent Supporting System

For the five major service outsourcing clusters in China, they all need to strengthen the building of talent team of service outsourcing, and accelerate the gathering of outsourcing talents. Especially the Information and Software Service Outsourcing Industry Cluster of the Midwest and Northeast China need more to keep the top-level talents of the industry by all means. The lack of business personnel and research talents for undertaking the outsourcing services is the number one "lion in the way" in developing the service outsourcing, so constructing a reasonable talent team of service outsourcing has become particularly urgent. By optimizing and allocating the educational resources of universities and the society to enforce the development of talent team of service outsourcing and construct our own talent system of development of service outsourcing industry. There are three modes to cultivate the service outsourcing high-end talents: The first one is bringing in, that is to say, employing some senior management personnel in relevant industry or attracting overseas outsourcing talents who have experience in the service outsourcing enterprises and are familiar with international outsourcing market to come back and take office. The second one is the inward cultivating, which arranges for the excel managers who are familiar with overseas clients to accept the instruction from experienced inward top talents in order to know how to exploit the market and seek for outsourcing orders, and get familiar with the operation principles of international service outsourcing markets by specific practices and constant studies. The third one is overseas training. This cultivation mode will directly place the trainees into international service outsourcing markets, and try to broad their horizon and sights and eventually build international and high-qualified top-level talents in service outsourcing (Zhang, 2011) by arranging them to attend the development of international service outsourcing markets and experience the negotiation and order-taken process of outsourcing projects by their own.

3.3 Perfect the Venture Capital Management

Inside service outsourcing industrial clusters, especially Information and Software Service Outsourcing Industry Cluster in the middle and western regions and the northeast China where the economy lags behind, the enterprise outsourcing strategies and specific intentions should be fully carried out from the Investment Promotion Agency of the Ministry of Commerce, China Council for International Investment Promotion, Chinese service outsourcing Association, CATIS and other investment promotion institutions and thus the special work plans should be formulated to carry out investment promotion actively and support international services outsourcing through multiple custom-oriented services; set up special fund, introduce and cultivate talents in the industrial parks, attract transnational companies, encourage the joint ventures and offer financial support from professional certifications so as to form the entrepreneurship investment system “guided by governmental investment and dominated by enterprise investment”; the collaborative mechanism of financial institutions.

3.4 Perfect the Co-Existence Mechanism of Regional Service Outsourcing Industry

The regional symbiosis system of the international services outsourcing is the guarantee of sustainable growth of competition of development of service outsourcing industry. Therefore, all profit must be considered adequately, and according to the element which is led by market mechanism, through realizing the service outsourcing in the areas of flux, compares theory of complementary advantages to achieve cooperation through economic division and cooperation with mutual development in the field of open competition and reformation. What’s more, optimizing development environment of regional development of service outsourcing industry, including the governments, cooperation with the associations of regional development of service outsourcing industry, citizen social organizations and associations serving as complements, formulating unified regional development plans, all around innovations and perfection of coordinative mechanisms, establishment an improvement of systems and organizations, support systems for information technical support protocol, education systems, financial support systems and lawful support systems (Bao, 2012).

3.5 Formulate Targeted Policies and Regulations

In the national scope, the country shall formulate systematic industry supporting policies which include fiscal levy, laws and regulations, etc. And it could formulate a series of preferential policies on the basis of respective conditions in the service outsourcing industrial clusters, in order to form up cluster effect and scale economy. Aiming at the world trend and based on the main service outsourcing cities such as Shanghai, Beijing,

Shenzhen and Dalian, the country should construct first-class service-epiboly industrial parks and complete the functions. It should guide the enterprises to cluster together through preferential policies and regulations, promote international service outsourcing, striving to develop the technical research and development, information, professional services, logistics transportation and commercial services, and so on.

3.6 Found an Industrial Association to Lead Cluster Development

The service outsourcing industry in our country develops fast, and five major service outsourcing clusters have their own characteristics, but the coordination and cooperation are lacking in these clusters. Build and nurture the nation the service outsourcing industry and other intermediary organizations. Mature and independent industry association plays an important role in coordinating enterprises’ actions, standardizing industrial order, safeguarding enterprises’ rights and interests, strengthening information service and promoting the development of the industry. At present, the service outsourcing industry should start to cultivate social organizations and intermediary organizations which operate maturely. Their main functions, one is to work as a communication bridge between enterprises and China’s policy making institutions, to be responsible for the collection of feedback information from the enterprises, reflect the real needs of the enterprises, participate in the formulation of industrial development strategies related to the outsourcing service industry, help enterprises understand various preferential policies and measures and implement them. Second one is to promote the exchange and cooperation among enterprises, help enterprises to make publicity and promotion work in domestic and foreign markets through various channels, make research plan, and do information service including the collection and arrangement of data and important information perfecting the venture capital management, consummating the co-existence mechanism of regional service outsourcing industry. In the period of preparation, after the official establishment of professional institute with the nature of the industry association which is led by relevant state ministries and departments, the operating mechanism can draw experience from Hong Kong Trade Development Council and the National Association of Software and Services Companies of India. In terms of the fund sources, on the one hand, the state guarantees a financial allocation of a certain proportion, and on the other hand, the association is allowed to charge service fees in appropriate links according to the rules.

CONCLUSION

Our country’s services outsourcing is developing very fast, and has already formed to service outsourcing clusters

among Bohai Rim, Yangtze River Delta and Pearl River Delta. The Central and Western regions as well as the Northeastern regions have also begun to make constant breakthroughs in development of service outsourcing industry, forming the preliminary industrial clusters of the Central and Western regions and the Northeastern regions service outsourcing clusters. Currently, There are problems existing in the cluster development process of China's service outsourcing industry such as imperfect protection measures for intellectual property rights, weak talent supporting system, management of risk investment and Co-existence Mechanism of Regional Service Outsourcing Industry to be perfect, dispersive layout, prominent homogenization problems, lack of the guidance of industry association and so on. Aiming at above problems, the paper proposes to enhance intellectual property rights protection, perfect the talent supporting system, complete related laws and regulations, and perfect the venture capital management, consummate the co-existence mechanism of regional service outsourcing industry, as well as found an industrial association to lead the development of the clusters.

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