

The Function of Shanghai as a Global Central City: A comparison with London

Zhiyuan Li^{1, †}, Haojun Zhang^{2, *, †}

¹No.2 High School of East China Normal University, Shanghai, China

²King's College London, London, United Kingdom

*Corresponding author: K20063082@kcl.ac.uk

[†]These authors contributed equally

Abstract. As a global central city, Shanghai is gradually playing a pivotal role in the world. We first introduce the current situation of Shanghai's development. At the same time, it analyzes the urban function of Shanghai as a global central city from three aspects: economic function, social function, and cultural function. Then we make a SWOT comparison between Shanghai and London, two typical world cities, and analyze the unique urban advantages of Shanghai. Finally, we put forward some possible improvement suggestions for Shanghai-based on the analysis results.

Keywords: Global Central City, Urban Function, Shanghai, London

1. Introduction

This study analyzes the status and function of Shanghai in the world by searching the literature. Taking the comparison between Shanghai and London as a starting point, this study aims to analyze the advantages and disadvantages of Shanghai as a global central city and possible suggestions for improvement, as to find ways to solve the disadvantages facing Shanghai.

We first define the concept of Global Central City [1]. This topic is from the economic, social, and cultural perspective to analyze the urban function of Shanghai. In terms of economy, we analyze Shanghai's global chain integration ability, factor market coordination ability, and international financial center status [2]; in terms of society, we analyze Shanghai's ability of global population gathering and social population structure adjustment [3]; in terms of culture, we analyze Shanghai's inheritance and promotion of local culture and integration of foreign cultures [4-6]. In the SWOT comparison between Shanghai and London, the study analyzes Shanghai's advantages in trade and urban environment, as well as its deficiencies in cultural construction and industrial structure. Finally, we put forward possible suggestions for improvement from four aspects: cultural prospects, scientific development, industrial adjustment, and trade cooperation, to enable Shanghai to draw on the experience of other cities and more effectively play its role as a global central city.

2. Results

2.1 Analysis of the current development status of Shanghai as a global central city

2.1.1 Definition of the global central city

The Brookings Institution, a renowned US think tank, released 10 characteristics of global cities in 2013, including an international vision of leadership, the traditional advantage of globally oriented, globally competitive expertise, the ability to adapt to the global changes, pay attention to the culture, knowledge, and innovation to attract global talent and charm, degree of international links and convenience, and the investment capacity of strategic focus, leading cities towards global government, be good at marketing brings a global reputation, etc.

The central city is the growth pole of regional development. It realizes the optimal allocation of various elements and resources and drives the development of city-regional communities through interaction with the region. The central city refers to the big cities and megacities that play a pivotal

role in the economic activities in a certain region and have comprehensive functions or multiple dominant functions.

Therefore, a global central city refers to a city with strong economic strength, a huge international flow of high-end resources, and the influence of a cultural system. Meanwhile, the city needs to be in an important position in the global region, with a variety of leading functions, and achieve the optimal allocation of various elements.

Common features of global central cities:

(1) Diversity: Global cities need the support of economic strength, but economic performance alone cannot create a global city. The urban environment composed of quality of life, innovative atmosphere, and good management is becoming increasingly important.

(2) Mobility: Globalization itself means the international integration and sublimation of knowledge, culture, ideas, and technology, and the convenience and ease of various economic and cultural activities within cities and regions should be ensured first.

(3) Inclusiveness: Provide equal opportunities for international and domestic immigrants to work and live, and constantly attract and nurture new talent and creativity.

(4) Forward-looking: thanks to the government with an international vision, it plays a role in formulating urban planning, constructing and maintaining infrastructure, ensuring security, attracting investment, creating and promoting the city brand effect, etc.

2.1.2 Development status of Shanghai

2.1.2.1 Shanghai's current global status

The Kearney Global Cities Index is published every two years in five areas: economic activity, human capital, information exchange, political participation, and cultural experience.

Shanghai moved up two places to enter the top 10 for the first time in the 2021 Kearney Global Cities Rankings.

Shanghai has moved up 10 places in the rankings over the past five years, not only retaining its perennial top spot in terms of shipping capacity but also moving up to second place in terms of air throughput in 2021. At the same time, the capital market has also driven the number of unicorns in China to become the fourth largest in the world. As Shanghai vigorously promotes the construction of a consumer center city. Shanghai is constantly relying on its outstanding commercial value to drive the overall development of the city and continues to strive toward the world's first-tier city.

Schroders, a global asset manager, has released its Global Cities Index report 2022, identifying the world's 30 best cities. Schroeder said the assessment was based on economic, environmental, innovation, and transport indicators, taking into account factors such as economic vitality, excellent universities, forward-looking environmental policies, and transport infrastructure.

Among the 30 best cities in the world, the top 10 are London; Boston; San Francisco; New York; Melbourne; Toronto; Paris; Singapore; Hong Kong; Chicago. Shanghai ranked 29th out of 30 cities on its list.

2.1.2.2 Current development prospects of Shanghai

According to the Authoritative classification of global cities based on economic influence by the Globalization and World Cities Research Network, In 2000, Shanghai ranked among the most international cities in the worldlier 4 of the global city system, namely, the important cities connecting major regions and countries; By 2010, Shanghai had entered the second tier of the global city system, ranking seventh overall, behind London and New York in the first tier and Hong Kong, Paris, Singapore and Tokyo in the second tier (Alpha+ category). This means that along with the development of finance and other specialist services, Shanghai has developed into "one of the hubs of global economic control other than London and New York, playing an important complementary role to both cities".

On the other hand, Shanghai, as an international metropolis, although its economic performance is not far behind that of the cities at the top of the global urban system, still has great potential and space for development in terms of the internationalization of talent information exchange and cultural

experience. The fundamental of internationalization of urban development lies in the city's attraction to global capital, trade, talents, and tourists. Shanghai needs to go beyond a plan centered on developing economic strength to become a top destination for attracting world-class talent to increase mobility and inclusiveness, thus becoming a cultural metropolis driven by technological innovation

2.2 Functional analysis of Shanghai as a global central city

2.2.1 Economic Functions

Shanghai is becoming a barometer of national economic development and a gathering place of the global headquarters economy. With a high degree of economic openness and a good business environment, it is home to many multinational corporations, international financial institutions, and international economic and political organizations.

2.2.1.1 Global chain integration capability: The scale of headquarters gathering is relatively insufficient

Although Shanghai has become the city attracting the most regional headquarters of multinational corporations in mainland China, it still has the attraction and great potential to gather multinational headquarters in the future, but there are still a series of problems in terms of headquarters agglomeration: the scale of headquarters agglomeration is relatively insufficient. In terms of the number of regional headquarters of multinational companies, Shanghai (634) has much room to increase compared to international cities such as Singapore (4,200) and Hong Kong (1,389). Relatively speaking, Shanghai has fewer global and Asia-Pacific headquarters. At present, there are only 72 Asia-Pacific headquarters, accounting for only 11% of the total number of clusters. At the same time, only 7 of the global 500 companies are headquartered in Shanghai, far lower than Tokyo, London, and New York. Few high-end functional headquarters, especially the lack of capital center, settlement center, profit center, and other core functional headquarters; The business expansion of the headquarters is limited. For example, the market access of the health industry of Johnson & Johnson is limited, and the film and television production business of Walt Disney Company is limited outside the parking area. On the whole, there is still a gap between the economic competitiveness of Shanghai's headquarters and well-known international metropolises.

2.2.1.2 Market allocation capacity of factors: Lack of pricing power and discourse power

Some of Shanghai's trading markets continue to rank among the top in the world, but their pricing power is still insufficient. In the bond market, exchange rate market, interest rate market, financial derivatives, and other fields, there is a huge gap with the world's leading exchanges. For example, the average annual foreign exchange transaction volume is only 20 billion DOLLARS (1864 billion dollars in London and 90.4 billion dollars in New York), and the share of global foreign exchange transactions is only 0.86% (12.88% in London and 84.85% in New York). It can be seen that the Shanghai factor market lacks transaction allocation ability and pricing power and discourse power.

2.2.1.3 International Financial Center Status: The third financial center in the world

Shanghai is the most developed area of the financial industry in China. With the deepening of China's economic and financial reform and opening-up, the construction of Shanghai as an international financial center has been put on the agenda as an important national strategy. On September 25, 2020, the British think tank Z/Yen Group released the 28th Global Financial Centers Index (GFCI 28), which ranked Shanghai as the world's top three, replacing Tokyo for the first time, next only to New York and London. In March 2021, the latest Global Financial Center Index was released, and Shanghai retained third place. Shanghai's status as an international financial center is increasingly consolidated and widely recognized by the global economic and financial circles (see the figure below).

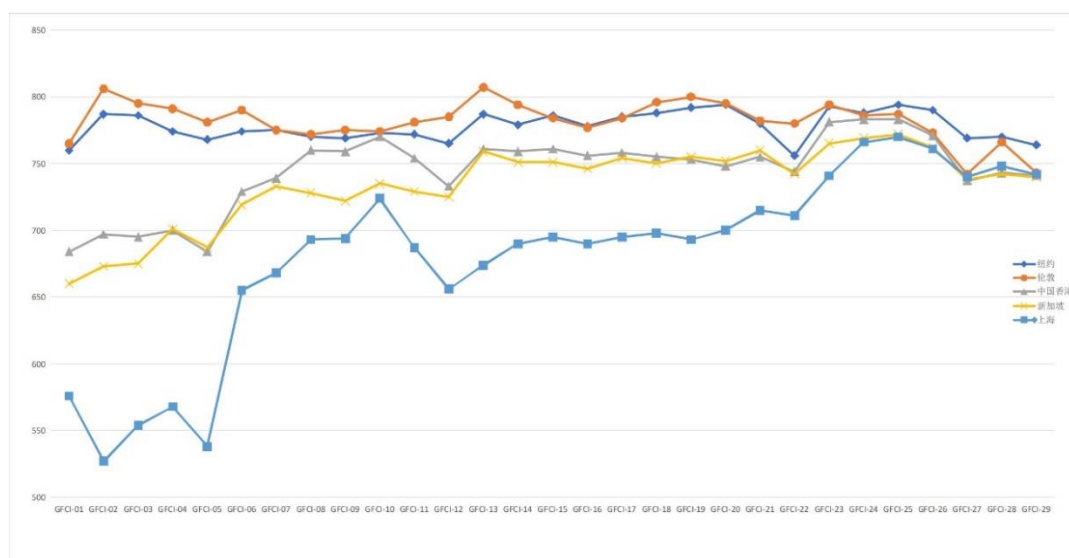


Figure 1. Past Global Financial Center Index of Global Cities

2.2.2 Social Functions

2.2.2.1 Global Population Agglomeration: The urban population is leading and the structure is balanced

In 2020, the number of permanent residents in Shanghai at the end of the year was 24.8709 million, an increase of 60,900 over the previous year, and an increase of 1.809 million compared with 2010. The registered population of Shanghai at the end of 2019 was 14,693,000.

In terms of population gender composition, the male population accounted for 51.8%, the female population accounted for 48.2%, and the sex ratio was 107.33 in 2020.

In terms of population age composition, in 2020, the proportion of the population aged 0-14 in Shanghai will be 9.8%, the proportion of the population aged 15-59 will be 66.8%, and the proportion of the population aged 60 and above will be 23.4%, among which, the proportion of the population aged 65 and above will be 16.3%.

In terms of the urban and rural population structure, in 2020, the urban population of Shanghai was 22.2094 million, and the rural population was 2.661,500, with an urbanization rate of 89.3%.

In terms of the number of people with an education level per 100,000 population, in 2020, among the permanent residents of Shanghai, the number of people with a college education (junior college or above) is 33,872/100,000, and the number of people with a high school education (including technical secondary school) is 19,020/100,000, and the number of people with junior high school education is 28,935/100,000. The population with primary education was 11,929 per 100,000. In terms of the average length of education, the average length of education of the population aged 15 and above in Shanghai in 2020 was 11.8 years, an increase of 1.10 years compared with the sixth national census in 2010.

In terms of foreign nationals, there were 371,380 residents of Hong Kong SAR, 55,732 residents of Macao SAR, 157,886 residents of Taiwan, and 845,697 foreign nationals living in 31 provincial-level regions and receiving census registration, totaling 1,430,695. Among them, about 164,000 people live in Shanghai, accounting for about 11.5 percent of the total overseas population.

2.2.2.2 Reconstruction of population structure

Shanghai has experienced a high degree of population growth and mobility in recent years. In the face of such a huge flow of people, The city of Shanghai has realized the adjustment of the urban population structure by adjusting its urban layout.

The change of social groups in central urban areas is mainly influenced by the self-renewal of central urban areas. On the one hand, some residential areas with historical value have been preserved as a cluster of retirement and working-class areas. On the other hand, the local government obtains

the land rent income from the central area to the periphery of the city using urban planning. A large number of low-income families move out and are replaced by the elite group dominated by the cross-border white-collar class. At the same time, with the social and economic development, the white-collar class has gradually expanded and began to move into the city center and outside the city ring.

Due to the rapid social and economic development of Shanghai and the adjustment of industrial structure, a large number of industrial production and new areas of colleges and universities are concentrated in the suburbs, and its low cost of living and production has attracted a large number of capital-intensive and labor-intensive enterprises, as well as a large number of migrant population and middle-class drama. Therefore, the migrant population in the west of the city shows a fan-shaped expansion trend.

In the outer suburbs, agricultural areas have been significantly reduced, and gradually transformed into industrial and modern urban society. A large amount of agricultural land has been transferred to non-agricultural uses, while a large agricultural population has also gathered in cities and mixed with migrants.

2.2.3 Cultural Functions

Fred points out that "in the nineteenth century 'culture' was associated with the condition of human life, and it was not until Arnold's time that the use of 'culture' was discovered to refer to the specific way people lived." Culture teaches us how to distinguish between, say, British and Italian etiquette, Argentine and Japanese art, American and Indonesian management, and Chinese and Egyptian medicine." According to this, urban culture can be defined as a lifestyle rich in urban characteristics, which is rooted in the unique historical and cultural context and market life of this region.

2.2.3.1 Inheriting local Culture Promoting traditional revival in the process of modernization

Shanghai opened its commercial port in the late Qing Dynasty, but its handicraft development benefited from the historical development of the Jiangnan area. Since the end of the Ming dynasty and the beginning of the Qing Dynasty, the lifestyle of people in towns and cities in The South of the Yangtze River appeared a relaxed and luxurious atmosphere, and one of the expression carriers of this luxurious atmosphere is exactly the traditional handicraft of "treating utensils and beauty". However, "the skills of all kinds of work" are still good. It not only brings to the city a carefree and luxurious consumption culture but also brings to the artisan spirit of fine workmanship, "governing utensils and beauty".

During the period of the Late Qing Dynasty and the Republic of China, western culture poured into Shanghai, which further strengthened the commercial culture and consumer culture of Shanghai. However, under such historical background, Shanghai's traditional handicraft fully showed the urban cultural characteristics of admitting all rivers into the sea and continued the spirit of exquisite craftsmanship.

In the process of Shanghai gradually becoming a modern metropolis, traditional handicraft has entered a new round of revival in recent years. Above all, as what people ask for the quality of life rises ceaselessly, in Shanghai this once industrialized city, appeared a large number of spurns industrial mechanization products, the beauty that pursues life original ecology and those who are surrounded by traditional handicraft of international connection to return to plain nature. Secondly, under the protection strategy of Shanghai's cultural heritage, the traditional handicraft is booming, and the inheritance and development become the new vitality of the recovery of traditional handicraft, forming the urban contemporary handicraft revival and regional cultural expression ecology. Traditional handicrafts often have the special qualities of intangible cultural heritage items and geographical indication products. They come from the unique natural environment and cultural environment of the region and are important carriers of regional excellent traditional culture. They are characterized by distinctive and rich local knowledge and refined traditional crafts and techniques. It not only gets rid of the "shoddy manufacturing" and mass reproduction of industrial mechanization but also embodies the unique regional cultural brand in the unique historical and cultural context.

2.2.3.2 Integration of foreign cultures: Integration and innovation of Chinese and Western cultures

After the Opium War, China opened its door to the outside world, and large quantities of low-priced mechanized daily necessities from the West, together with large western machines, poured into Shanghai. These western goods, with their exotic style and exquisite workmanship, made China's practical traditional handicrafts quickly lose their original market.

But at the same time, facing the influx of foreign cultures, Shanghai people have realized the development trend of integrating China and the West.

Take Shanghai's traditional handicraft "Shanghai velvet embroidery" as an example.

Cashmere embroidery originated in Europe. At the end of the 19th century, the nuns of Shanghai Xujiahui Catholic Church introduced cashmere embroidery to Shanghai. Due to the popularity of traditional embroidery skills in Shanghai, under the guidance of nuns, women gradually mastered the embroidery skills. At that time, cashmere embroidery products were popular in Europe, so European merchants and Chinese comprador took advantage of China's cheap labor force and embroidery skills, and gradually cultivated a large number of cashmere embroidery talents in Shanghai, and the products were exported to Europe and The United States. After more than 100 years of inheritance and development, Shanghai embroidery has developed its own unique artistic expression techniques based on learning from European embroidery, thus becoming a national intangible cultural heritage with unique technological characteristics.

2.3 SWOT analysis of Shanghai with London

2.3.1 Advantages and opportunities of Shanghai compared with London

2.3.1.1 Shanghai's advantages in trade

Shanghai and London have shown unique advantages in the development of trade, especially shipping. As early as the 1840 s, completed the industrial revolution for the first time, as the world's first industrialized country, the use of the advantages of their own economic and trade center, formed based on a large number of Marine sources of London's international shipping center, and gather the financial insurance, law, arbitration, information consulting and other related industries, the resulting trade advantage. In the late 20th century, the decline of Britain's international competitiveness brought a huge impact on the supply of goods in London's international shipping center, and Britain began to seek authority on rules. The British established internationally recognized and common shipping rules in the early stage of the shipping trade, occupying the authoritative position of rule interpretation and holding the right to speak in the formulation of shipping rules. [8] It can be said that What London has created is a business environment rooted in the historical system, with high-end service advantages based on platform advantages.

Different from London, the main advantage of Shanghai international Shipping center lies in relying on the real port and shipping industries, such as the high-speed growth of China's economy and trade, the superior level of economic development in the hinterland of the Yangtze River Delta, the huge scale of port production and port handling capacity. With the deepening of the Shanghai international shipping center construction at the present stage policy support and free trade zone, Shanghai international shipping center of modern shipping service industry agglomeration effect has preliminarily revealed, shipping service function also, set up the Shanghai international shipping center is in the transitional period, from traditional freight shipping center to a service-oriented, knowledge-based transformation of shipping center. This transformation has been rapid and has shown a more dynamic trade ecology and modern characteristics. In the past two decades, the growth rate of containers has reached more than 360 times, and more than 2700 ports in more than 200 countries and regions have established container cargo trade contacts. The shipping density of container liners exceeds 3000 per month. The annual throughput of Shanghai port will exceed 40 million TEUs, which is the sum of all ports in the United States and one-tenth of the current annual throughput of global ports. [8] Relying on the rapid development of the manufacturing industry in

mainland China, the growing local demand, and the construction of the Golden waterway of the Yangtze River, Shanghai plays an obvious role as an economic hinterland. But now the main body of London port has moved out, the physical function of the shipping center has been weakened.

Shanghai has great advantages in the construction of modern shipping service systems such as international shipping enterprises, port services, maritime arbitration, shipping consulting, shipping brokerage, shipping financing, shipping insurance, and shipping derivatives. By the end of 2015, there were nearly 1,700 international shipping and auxiliary enterprises. For maritime arbitration, in 2015, 320 cases were accepted in Shanghai international shipping arbitration, up 23.1% year on year. [8] As for shipping brokers, by the end of 2015, Shanghai had 22 shipping brokers and 136 registered shipping brokers. Shipping financing: In 2015, the total amount of credit granted to Shanghai's shipping industry by major banks and financial institutions exceeded 200 billion yuan; By the end of 2015, 55 property insurance companies in the Shanghai insurance market were engaged in the direct insurance business of shipping insurance, among which 12 were foreign companies, 39 were ship insurance companies, 53 were freight insurance companies, and 363 were professional insurance institutions. [8] Shipping derivatives trading: all the three capacity trading products on the derivatives trading platform of Shanghai Hna Exchange have normalized the delivery of capacity, forming a shipping financial industry ecosystem with platform trading as the core. Not even London has.

2.3.1.2 Advantages of Shanghai in the urban environment

The comprehensive urban environment of Shanghai also has a unique advantage, which is at a world-class level. Shanghai's splendid historical precipitation, perfect city functions, and successful hosting of the World Expo and other international events have created a unique city image of Shanghai, which has been continuously attracting global talents, information, capital, and tourists, and has certain advantages in attracting global capital, talents, and tourists. Talent attraction ranks among the highest in the world. In 2014, Kearney ranked 84 cities among the top 20 in terms of investment attractiveness based on 26 indicators, including urban development, talent attraction, and retention, and ranked Shanghai 18th. In terms of foreign talent attraction, Shanghai ranked first in China. According to the 2013 World Tourism City Development Report released by the World Tourism Cities Federation (WTCF), Shanghai is still far from the top tourist city in the Asia-Pacific region in terms of inbound tourism reception scale, but the domestic tourism market scale is the world's largest.[9]

At the same time, in terms of the business environment, Shanghai is at a world-class level, attracting many industries to develop in the local area. According to the World Bank, the world average for starting a business has shrunk from 51d in 2003 to 20d, with London and Singapore below average, the Netherlands slightly higher, and China's Shanghai well above average. Today, Shanghai's investment market is more dynamic and more invested than London's. Shanghai ranked 10th, behind London and Paris, according to Mercer's 2014 Survey of the World's Most expensive cities for expatriates. [9] One notable factor is the high level of education in Shanghai. Hong Kong, Beijing, and Shanghai are among the top 50 "best student cities" in the world, according to the 2014 QS Rankings. High school students in Shanghai topped the Program for International Student Assessment (PISA) in 2012, CNN reported. Shanghai's teenagers topped the world in math, reading, and science literacy [9].

2.3.2 Weaknesses and potential threats of Shanghai compared with London

2.3.2.1 Shanghai's deficiencies in the cultural construction

However, there is still a big gap between Shanghai and London in cultural construction. As the capital of Britain and the cultural center of Britain, London has a long-term historical atmosphere and long-term investment in the cultural industry. For example, the number of museums in London and many international metropolises is higher than that in Shanghai. Paris topped the list with 297 museums, followed by London with 192. Shanghai had 131 museums by the end of 2018, a number that continued to increase, but museum ownership per capita was still low. In terms of having a museum for every 10,000 visitors, London, Hong Kong, and Shanghai each have a museum for every

47,000 people, leaving much room for improvement. [10] The attraction of museums and art galleries is also inadequate. According to the WORLD CITIES CULTURE REPORT 2015, London has the most visits among the top five museums and art galleries, with 30.54 million visits. Paris was next with 2,658; Shanghai's 9.31 million were only ahead of Hong Kong's 4.84 million. [10] In general, due to reasons such as relatively simple exhibition contents and weak awareness of visitors, the average number of visitors in Shanghai is far lower than that of international cultural metropolises. Museums and art galleries should have huge growth spaces in attracting visitors.

In addition, as the embodiment of history and culture, cultural heritage, as the precious wealth left by history to mankind, is an important carrier of urban cultural accumulation, which plays an important role in shaping the image of a city and improving the cultural literacy of citizens. In terms of the number of heritage sites, London and Paris ranked first with four each. Shanghai currently has no WORLD Heritage sites. According to WORLD CITIES CULTURE REPORT 2015, Shanghai has 2,049 historical sites and other sites, which has increased over the past three years, but the total number is still far lower than London, New York, and other international cultural metropolises [10].

At the same time, the development of various performance and entertainment industries also reflects the limitations of Shanghai's cultural development. First, the total number of theaters is low and the influence is insufficient. Theatre is one of the main indicators of performing arts, the highest annual attendance of all theatres in London, 15.09 million, Broadway and London's West End in the theatre sector in the box office power can be seen. The brand influence of theaters is far more important than the number of theaters. To build Shanghai into the Performing arts capital of Asia, it is necessary to cultivate theater ecology and create a theater cluster with international influence similar to Broadway. In addition, London has a large number of musical performances and a strong musical atmosphere. According to MAKING SPACE FOR CULTURE, part of the World Urban CULTURE Forum's policy and practice series, London's live music scene contributes £92 million a year to the city's economy, stimulating the vitality of the city and stimulating economic development. [10] London's Grassroots Music Venue Rescue Plan, a London's Grassroots Music Venue Rescue Plan was set up in 2015 by the mayor of London and members of the Music industry to protect venues, And the use of big data to find the reasons and the number of music venues closed, clear the economic and cultural value of music venues and put forward efforts to reduce the closure of music venues and encourage the opening of new music venues. Shanghai can learn from London's efforts to preserve music venues.[10]

2.3.2.2 Shanghai's deficiencies in industrial structure and development

In terms of industrial layout and industrial structure, Shanghai also has some problems compared with London. The industrial development of The City of London is highly modernized, and it is the core area of London's metropolitan area. Although London emerged from the industrial revolution, London did not regard the industry as the city's follow-up leading industry but developed the financial service industry, which won the first opportunity for it to officially become a global city. At present, there are few manufacturing enterprises in London, and they are concentrated in several major industries. The total output value of the top five largest industries accounts for 94% of the manufacturing industry in London. [11] They are food manufacturing, printing and related industries, base metal manufacturing, chemical industry, and pharmaceutical production. Thus, it can be seen that the enterprise sector in London metropolitan area mainly makes service decisions. These businesses are mainly based in inner London, particularly in head office and sales. Compared with the more traditional manufacturing industry in Shanghai, the first and the second industry proportion is higher, its industry accounted for the top five are electronic equipment manufacturing, transportation equipment manufacturing, general equipment manufacturing, electric machinery, metal products, it is a symbol of the resource consumption and covers an area of greater requirements for traditional heavy industry for power, raw materials, and other resource scheduling is very large. [12] At the same time, their production needs to be supported by large factories, that is, more floor space. From the commercial point of view, many types of tertiary industry have the advantages of small consumption, as well as a wide range of trade, which is in line with the consumption tendency

of the majority of the middle class. Therefore, modern cities tend to focus on tertiary industry in the distribution of industrial structures. However, by the standards of an international metropolis, the proportion of the tertiary industry in Shanghai is significantly lower, only 56.32%.[11] Part of the manufacturing industry in the metropolis is generally an urban industry with high added value, less energy consumption, and less land area. These industries have fewer requirements for urban space and environment but need the support of talents and information in the metropolis. To prevent the risk of hollowing out caused by the relocation of urban manufacturing industry, and considering the environmental capacity of cities, the rising global cities should promote the development of urban industry, and effectively integrate with the manufacturing industry in the surrounding areas to reduce vicious competition.

The manufacturing industry still exists in global metropolises like London, but the structure of the manufacturing industry is gradually optimized in the adjustment of industrial structure. Among them, the urban industry has certain competitiveness and vitality, while there is no urban industry among the five largest manufacturing industries in Shanghai. At the same time, Shanghai manufacturing is mainly distributed within its administrative region, regional integration degree is low, only 10% of company headquarters of Shanghai metropolitan area distributed in the core area, 40% distributed within the S20 circle, there are few enterprises sector distribution scopes of the administrative region outside of the city circle in Shanghai nearly exurb (i.e., Suzhou, Jiading, Wuxi and Changzhou, Nantong),[11] This is undoubtedly a burden to the resource scheduling of core areas. Shanghai is still not modern enough in this respect and cannot fully synchronize with the international market demand.

The hierarchical division of labor system is formed between regions, which makes the comprehensive function of the whole metropolitan area greater than the simple superposition of the functions of a single city. The key to a global city is control and command. Shanghai's industrial layout is relatively closed in space, showing a state of administrative division, and lacks the necessary industrial interaction with its neighbors. On the one hand, the manufacturing industry in Shanghai cannot be transferred, so the upgrading of its internal industrial structure is blocked, and high-tech and high value-added industries cannot be developed. On the other hand, it also makes the manufacturing industry in Shanghai and surrounding areas unable to carry out effective integration, and the overall interests are damaged. Therefore, Shanghai should optimize the industrial layout and promote regional integration. [11] The central city must rely on the strength of the surrounding urban areas to advance towards the goal of a global city, and drive the surroundings to form a competitive world-class urban agglomeration.

The agglomeration of service industries in cities not only represents the advanced stage of urban development but also further consolidates its global control. Shanghai should look for the benchmark of industrial structure adjustment in the world and actively optimize and upgrade. The balance and diversity of economic structure will become an important path for the economic transformation of international cities in the future, and the direction of Shanghai's efforts to develop into a global city [12]. But China's urban home environment and global city are different, have mature global cities are located in developed countries, the industrial structure of the whole country has entered the service stage, but the overall is still in the stage of industrialization in our country, China's rising global city in the industrial structure adjustment, to combine reality, in the state of the constraints, and based on the traditional mode of production, Make industrial arrangements with its characteristics. The home country of a global city is the basis of its economy and culture and important support for urban development. A global city needs a hinterland background of a global level. The proportion of employment is close to that of the tertiary industry in the country's central cities. [12] However, China's industrial structure is still in the mode of balanced development of three types of industries, and the proportion of the primary and secondary industries is relatively high. The industrial structure of a city is inseparable from the economic stage of the country, and Shanghai cannot rise to be a top global city without the economic strength of the country.

2.4 Shanghai's future development prospects and relevant suggestions

2.4.1 Cultural development prospect of Shanghai

The following are some potential suggestions for Shanghai's future and construction. At the cultural level, it is a way of developing exploring, and showing the connotation of Shanghai culture. Shanghai culture was formed based on the intersection of Chinese and Western cultures in history. Shanghai culture is a unique cultural phenomenon of Shanghai formed based on the traditional culture of Jiangnan in China and the integration of European and American cultures. It has both the classicism and elegance of Jiangnan culture and the classicism and fashion of an international metropolis. [10] As a modern metropolis, Shanghai should not only pay attention to the integration of diverse cultures but also highlight the characteristics of Shanghai culture when promoting the soft power of urban culture. Therefore, Shanghai should vigorously tap the potential of Shanghai culture, form the rich connotation of Shanghai culture and shape its characteristics. At the same time, Shanghai culture should be led by Shanghai culture, integrate into the diverse cultures of various countries, and form a "melting pot of the world" Shanghai culture brand, to enhance the status and leading role of Shanghai culture in the city's cultural system.

2.4.2 Shanghai's potential in science and technology

At the same time, we should pay attention to the progress of science and technology, which is an important symbol of a city's soft power. Shanghai's science and technology and education have always been in a leading position in China, but from the perspective of international standards and international perspective, we should see the shortcomings and weaknesses of Shanghai's science and technology and education. [13] Therefore, Shanghai should accelerate the pace of building a global scientific and technological innovation center and enhance its leading role in global scientific and technological progress. Since the 1980s, many national research centers and state key laboratories have settled in Shanghai. In the new century, multinational corporations have also set up their research and development institutions in Shanghai, which has become the basis for Shanghai to implement the strategy of "revitalizing the city through science and education". [11] To improve the comprehensive capacity and overall level of Shanghai's scientific and technological innovation, Shanghai should accelerate the formulation and refinement of corresponding science and technology public policies, foster a more conducive institutional environment for the development of major scientific and technological infrastructure, and attract more well-known research and development institutions at home and abroad to settle in Shanghai. At the same time, it is necessary to further promote the application of major scientific and technological infrastructure in Shanghai and make new contributions to national scientific and technological innovation and development.

2.4.3 Improvement and development of Shanghai at the industrial level

As for the improvement of the industry level, an important foundation is to control the total population reasonably. The number population should not be simply determined by administrative orders but should be guided in a reasonable and orderly way according to the needs of urban development, to find a balance between controlling the total population and maintaining the vitality of the city, and alleviating the disease of large cities through forward-looking urban planning. Second, we need to improve economic development. Fully implement the policy documents, promote the continuous optimization of the business environment in an all-around way, accelerate the development of industrial investment and headquarters economy, increase GDP, increase household income level, and stimulate the development of the cultural consumption market.[13]

2.4.4 Shanghai's future in trade: cooperation and opportunities

In terms of trade, the cooperation between international cities is an inevitable trend in the future. As two major financial centers, London and Shanghai should cooperate more and better. At present, The UK hopes to further improve the competitiveness of shipping and carry out in-depth research on the relevant competitive skills gap. The British government hopes to promote the advantages of the British shipping industry and improve the image of the British shipping industry through financial

strength. Therefore, one has the advantages of the port and shipping industry, and the other has the advantages of the high-end shipping service industry. At this time, it seems natural for Shanghai and London to cooperate. [13] Generally speaking, although London and Shanghai are both international shipping centers, they are not the main competitors in the field of segmentation, and it is difficult to determine which major competition areas exist. It is worth noting that Singapore and Shanghai are each other's competitors in Asia, but Currently Shanghai lags behind Singapore in some aspects, so it is more important to focus on how to combine the advantages of London and Shanghai, namely complementary development.

3. Conclusions

In conclusion, as a global center, with its long-term development, Shanghai has built strong functions in various fields, affected the surrounding urban agglomeration and even become the center of the community, including but not limited to: economy, society, population structure and culture. Compared with other international cities (this paper uses London as the object of analysis and comparison), Shanghai has unique advantages and disadvantages in various fields, which means that there is still a lot of room for optimization and progress. Shanghai should grasp the vulnerable items in a feasible way

References

- [1] SONG S M. Functional theory of national central city and Research on Chongqing's construction of national central city. Chongqing University, 2013.
- [2] Chen YE. Construction of Shanghai International Financial Center and integration of Yangtze River Delta: Thinking based on coordinated development of real economy and financial industry. Shanghai Economics, 2022(01): 65-76.
- [3] Zhou Junfan, Wu Qianbo. Research on the New Trend of Population urbanization and its socio-spatial characteristics in Shanghai [J]. Modern Urban Research, 2021(08):24-30.
- [4] Zhang Lei. Research on cultural productivity of urban performing arts agglomeration: Based on the comparison of Broadway, London west End and Shanghai Performing Arts world [J]. Drama, 2021(04): 148-160.
- [5] Wu Dongying, WANG Xuelu. Cross-cultural communication: A case study of Shanghai and London hotels responding to customers' negative online comments [J]. Journal of Cross-cultural Studies, 2020(02): 1-14+128.
- [6] Chen Qiaoshan, Meng Ying. A comparative study of Traditional handicraft and urban cultural brand expression in Shanghai-London [J]. Shanghai Vision, 2019(02): 77-83.
- [7] Shen Jie, Wang Feng, Luo Xiang. Construction of global central city: International Trend and Shanghai prospect [J]. Shanghai Urban Planning, 2014(06): 59-64.
- [8] Shen Jing Li, The achievements of Shanghai and London lie in the East and West, China Ship Survey, 2016, vol.11.
- [9] He Yong, Liu Jian Qiao, Research on the comparative advantage of improving Shanghai's urban soft power, scientific development, Shanghai Institute of development strategy, 200032, School of economics, Shanghai University, 200433, 2014, Vol.12: 15-21
- [10] Zhou Ji Yang, Comparative study on cultural indicators between Shanghai and five international cultural metropolises, China ancient City, 2019, Vol.5
- [11] ZHANG Tinglin, SUN Bindong, The Spatial Distribution of Manufacturing Enterprises' Departments in global cities: An Empirical Analysis of New York, London, Tokyo and Shanghai, China modern city research center of East China Normal University, Shanghai urban development studies Vol.21 No.4 2014.
- [12] Liu Yinan, analysis on the comparative advantages and development status of building an international financial center in London—Enlightenment to the construction of Shanghai into an international financial center, (Business School of Zhengzhou University, 450001), China market, 2011, vol. 39

- [13] Zuo Xuejin, Wang Hongxia, international comparison of metropolitan innovation and population development—a case study of New York, Tokyo, London and Shanghai, Shanghai Academy of Social Sciences, social sciences, 2009, vol.02.