

A brief report on 2019 Global Top 500 Cities

□ Global City Lab

1. Research Background

City brand is the basis for the city's development, in addition to being an important factor for the maintenance and management of a city. Furthermore, city brand not only condenses the full potential of urban development but also provides a steady stream of energy for the same. A clear city brand strategy can enhance the city's standing, strengthen its cohesion and resonate between culture and economy. A successful city brand strategy can help a city better understand what industries and types of investment to attract, and what kind of talents and markets to explore.

Currently, major top lists on global cities include the Global Power Cities Index (GPCI) released by the Tokyo Metropolitan Strategy Institute, Classification of Cities by the Globalization and World Cities Research Network (GaWC) research team in the UK, and Global Cities Index and Outlook released by the US consulting firm in Kearney. They all differ in measurement methods. The Japan GPCI report measures and evaluates the strength of cities based on six functions: economy, R&D, cultural interaction, livability, environment and accessibility. Each function has several indicators. The GaWC research team has constructed the Interlocking Network Model to conduct quantitative research on the global urban network. It measures the connection of cities in the global urban network with the number of branches of multinational companies. Kearney's research divides metrics for cities into five dimensions, including business activity, human capital, information exchange, cultural experience and political engagement.

However, in general, these indexes or classifications still have some disadvantages or disconnections with future needs of urban development. The six functions selected by the Japanese GPCI focus on the construction and development of the city itself, while ignoring the city's brand premium, such as reputation. The city brand reflects the differences among cities and the city's public image. Due to the neglect

of the significance of brands in urban development, the GPCI will incorrectly ossify the direction of urban development, decrease characteristics of cities and cause the future urban development concept to be biased. GaWC's measurement is relatively monotonous. Its world urban network research only focuses on industries without inspections from other perspectives. Additionally, the internal management of cities, including economic development, environmental governance and administrative management, has an important impact on the overall development. The city's external connectivity affects its international status, tourism and international talent attraction, but under the barrel effect, the evaluation of a city's brand value should be more comprehensive and systematic with a multi-dimensional analysis. Similar to GPCI, Kearney's Global Cities Index and Outlook also selected several dimensions as assessment indicators, but still without the evaluations on brands. Meanwhile, Kearney divides the analysis into two aspects: current performance and future potential. However, it is not difficult to conclude from its dimensions that the evaluation of the current performance lacks the assessment of governance and economic development, while some of the most important potential factors are missing, such as talents and information channels. Therefore, it will undoubtedly cause some deviations in the city's current position and future potential. Another problem with GPCI and Kearney's Global Cities Index and Outlook is that the number of cities studied is small: GPCI only focuses on 44 cities, and Kearney's report currently covers 130 cities.

2. Research Methods

After analyzing, thinking, summarizing, and reflecting on many previous studies, the Global City Lab has established the City Brand Valuation Model (CBV model), based on the calculation of which the "Global Top 500 Cities" list is compiled. The evaluation of the city brand value in the Global Top 500 Cities List involves an analysis of the city's

performance in six dimensions: economy, culture, governance, environment, talent and reputation. The Global City Lab innovatively incorporates city reputation indicators in the evaluation process, which helps us understand the city's brand image with more details, and assess the city's external value and the future potential of brand development.

Specifically, the "Global Top 500 Cities" first calculates the city brand strength based on the CBV model, taking six major indicators of economics, culture, governance, environment, talent and reputation with each measured from 0–100 points. Subsequently, based on the weight of each indicator, the model calculates the brand strength coefficient of the city, followed by giving the brand value through calculation. Economic indicators measure the performance of a city in terms of its economic development and business activities, covering indicators such as the city's GDP, employment rate and the number of listed companies and multinational company headquarters in the city. Moreover, culture represents the city's cultural accumulation, attraction to tourists and tourism industry management capabilities, including indicators such as the number of tourists, degree of internationalization, number of attractions and airport construction. Governance is mainly measured by indicators such as urban corruption remediation efforts, government efficiency and government stability. Further, environment measures the living environment, convenience and quality of life of urban residents, including urban crime rate, per capita income, average life expectancy, number of hospitals, transportation convenience, air quality and other indicators. Talent measures the city's human resources, the innovation ability and the government's investment in talent innovation, including the number of key universities, startups, patents and talent policies. Reputation reflects the city's efforts in urban brand promotion and the public perception of city brands, including city social media activity, city search keyword trends, social media evaluation and other indicators.

The CBV model specific city brand value measurement process is as follows:

Step 1—Review and update the evaluation indicators

Step 2—Collect relevant data, research and news of major cities in the world

Step 3—Based on the performance of the six indicators, score the major cities in the world and calculate the city brand strength coefficient

Step 4—Calculate the value of the city brand through the formula based on the city brand strength coefficient and the city's GDP

The formula is as follows:

$$CBV=E \times BI \times S$$

E (Adjusted annual GDP of the city)—The adjusted city's annual GDP is the discounted present value of the city's GDP for the previous three years (including the current year), and the expected GDP for the next two years. The GDP forecast is calculated based on the World Economic Outlook data released by the IMF.

BI (Brand value added index)—This is the use of "Brand Value Toolbox" (BVA Tools) to calculate the total contributions of city brand to its GDP, which also considers the brand value added involved in the economic performance.

S (City brand strength coefficient)—This is based on the measurement and analysis of six indicators that affect the strength of a city's brand; the city brand strength coefficient is derived based on the different weights of each indicator. The indicators and corresponding weights are shown in table 1.

3. The Global Top 500 Cities list overview

In the 2019 Global Top 500 Cities list, New York is the world's most valuable city, with a brand value of 2.20 trillion dollars. London and Tokyo ranked second and third, with brand values of 2.02 trillion dollars and 1.91 trillion dollars, respectively. Cities with brand values over 1 trillion dollars included Paris, Los Angeles and Sydney. Hong Kong has a brand value of 783.63 billion dollars, ranking ninth in the world and first in China.

Table 1: Indicators of the CBV Model			
Primary Indicator	Weight	Indicator Groups	Secondary Indicator
Economic	20%	Economic development	City GDP, GDP per capita, employment rate, import and export, government debt rate
		Business activities	Number of listed companies, multinational company headquarters and foreign direct investment
Cultural	20%	Tourism development	Annual number of overnight passengers, internationalization of tourism, number of air passengers
		Abundance	Number of tourist attractions, travel agencies and historical and cultural heritage
		Constructions	Number of museums, stadiums, theaters, airports, railways and hotels
Governance	10%	Government Regulation	Legal system, corruption remediation efforts, supervision quality, government transparency
		Government Service	Government efficiency, administrative stability, service convenience
Environment	20%	Living quality	Crime rate, transportation and commuting index, per capita income, urban consumer price index, house price income ratio and average life expectancy
		Infrastructure	Number of hospitals, public transportation, airports, international flights and welfare policies
		Environmental Quality	Air quality, climate index, industrial pollution index, major pollution events, green coverage in built-up areas, recycling rate of garbage and natural disasters
Talent	10%	Government Support	Proportion of local financial research investment and talent attraction policy
		Human Resources	Number of priority universities, percentage of college students, number of college teachers and talent diversification
		Creativity	Number of startup companies, research institutions and patents
Reputation	20%	Branding	Marketing article quality, city social media activity and city brand marketing events
		Brand feedback	Social media feedback, poll feedback, search keyword trends and travel site reviews

Source: Global City Lab

Table 2: Top 10 of “2019 Global Top 500 Cities”				
Ranking	City	Country	Region	Brand Value (Billion USD)
1	New York	US	North America	2195.25
2	London	UK	Europe	2015.19
3	Tokyo	Japan	Asia	1906.28
4	Paris	France	Europe	1597.69
5	Los Angeles	US	North America	1270.83
6	Sydney	Australia	Oceania	1045.55
7	Berlin	Germany	Europe	830.95
8	Singapore	Singapore	Asia	803.71
9	Hong Kong	China	Asia	783.63
10	Toronto	Canada	North America	773.36

Source: Global City Lab

Table 3: Brand Value Range Distribution of “2019 Global Top 500 Cities”		
Brand Value (Billion USD)	Number of Cities	Percentage
Above 1000	6	1.20%
500-1000	18	3.60%
100-500	164	32.80%
Below 100	312	62.40%

Source: Global City Lab

Table 4: Top Regions with the Most Cities Selected (Billion USD)				
Ranking	Region	Number of Cities	Average Brand Value	Representative Cities
1	Europe	176	137.16	London, Paris, Berlin
2	Asia	151	142.47	Tokyo, Singapore, Hong Kong
3	North America	95	185.43	New York, Los Angeles, Toronto
4	Africa	36	88.43	Johannesburg, Cape Town, Cairo
5	South America	23	124.74	Buenos Aires, Bogota, Sao Paulo
6	Oceania	19	157.22	Sydney, Melbourne, Brisbane

Source: Global City Lab

The threshold for Global Top 500 Cities list in 2019 is 19.22 billion dollars. There are six cities with brands exceeding 1 trillion dollars, 18 cities with 0.5–1 trillion dollars, and 164 with 100–500 billion dollars. More than 60% of city brand values are lower than 100 billion dollars.

The Global Top 500 Cities are distributed across six continents, of which Europe, Asia and North America account for more than 80% of the list. Europe ranks first with 176 cities, followed by Asia with 151 cities, while North America ranks third with 95 cities. The Global Top 500 Cities brands are distributed in 124 countries,

among which the United States ranks first with 66 cities and China ranks second with 37 cities; the aforementioned occupy 20% of the list. Japan ranks third with 25 cities on the list, while the United Kingdom, India and Germany rank fourth to sixth.

4. Conclusions

This research examines the existing research on city brand evaluation and quantification methods, and develops the CBV model, a city brand value evaluation model suitable for the current era that can reflect future development. Finally, based on this model, the global city brand value

is evaluated in 2019, and the "Global Top 500 Cities" list is prepared. Through the analysis of the brand values of Global Top 500 Cities, we have reached the following conclusions:

a. Brand value of comprehensive cities are more prominent

In the 2019 Global Top 500 Cities, the top 10 are all comprehensively developed, with their economic, political, cultural, environmental and innovative talents all performing well. In some cases, cities that develop in a single direction can have great performances. For example, Bangkok is ranked 36th by its strong tourism industry; Vienna is ranked 13th by its tourism, culture and livability. However, more of the top 500 in the list are cities that are more prominent on one of the indicators, but because they are not comprehensively developed, their brand value has been affected to some extent. For example, Macau had the fourth highest number of tourists in the world in

2018, but due to its ordinary performance in talent innovation and living performance, etc., its only ranked 122 in the Global Top 500 Cities.

b. North American, European and Asian cities perform better; Asian cities have great potential

Although the number of Asian cities on the list is comparable to that of Europe and the United States, considering that the total population of Asia is more than 4.7 billion—accounting for more than 61% of the world ’ s total, and GDP of about 36% of the world in 2018—Asian city brands are slightly inconsistent with their economic strengths and populations. It takes a considerable duration and large–scale planning and construction projects with a high degree of recognition to establish a city brand in the true sense. European and American countries pay great attention to city brands and have started the construction of city brand in early stage. Therefore, their city brand

recognition and reputation are ahead of other regions.

c. City brand value and the economic development level complement one another

From the perspective of country distribution, the brand values of Global Top 500 cities are distributed across 124 countries. The top countries are the United States, China, Japan, the United Kingdom, India and Germany, with their rankings being highly consistent with the global GDP rankings of 2018. In addition, after a horizontal and vertical comparison of the brand values of cities within the same country, we found that there is a significant correlation between the level of regional brand building and that of local and national economic development. The two affect and complement each other. It can be seen that the value of a city's brand reflects the comprehensive strength of the region and the country. Therefore, strengthening the construction of urban

brands can promote the development of the regional economy. At the same time, the developed economic level can, in turn, improve the level of urban brand construction.

d. Chinese cities are dominant in city economic capacity, but still need improvement in the living environment

This year, a total of 37 Chinese cities were listed, most of which are in economically developed provinces along the eastern coast. From the perspective of economic capability, the average score of Chinese cities is higher than that of the remaining list, which reflects the importance and investment of economic development for Chinese cities. However, environmental and sustainability issues brought about by the economic development have also been overlooked by many Chinese city managers. Consequently, in terms of environmental quality, Chinese cities generally perform poorly. Furthermore, air quality and industrial pollution, which have been criticized by the general public, continue to affect the living quality of local residents. In 2019, Shanghai's garbage recycling policy caused substantial controversy, which also reflects the lack of experience and the pursuit of quick success for Chinese city managers in environmental governance. Other international cities, such as New York and Tokyo, already have very mature garbage collection systems. The improvement of the city's living environment indirectly reflects the long–term vision of the city in building a brand, thereby reflecting the respect for the people and the environment of the city. Therefore, from this perspective, Chinese cities still need to increase research efforts and investment in environmental governance in order to enhance their international competitiveness and city brand value.

