

Measuring Urban Culture : Indicators of Urban Cultural Competitiveness of China

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Abstract The competitiveness of an urban area is not only shown in the form of its economic development, but is also prominently reflected in its cultural influence. Urban culture constitutes the intrinsic spirit, which includes citizens' values, spiritual pursuits, ways of thinking and culture identity recognition. In China, a wide consensus from government to private sections is that culture plays an important role in people's daily life. It has become one of the top priorities for policy makers in China to enhance the competitiveness of urban culture, create and utilize cultural resources, and help shape the unique urban culture and characteristics. Based on previous work, we presented in our paper a definition and a theoretical model of "urban cultural competitiveness". We provided a framework consisted of 5 core factors and 55 indicators to measure urban culture in China. In addition, we demonstrated how to use this model by analyzing published urban culture statistics data of China in 2013. We calculated the indicators in the model, evaluated the cultural competitiveness of China's 36 largest cities, and presented the findings and insights from this model. The paper further investigated the performance of culture development and its impact on cultural policy making by conducting a case study on Beijing.

Key Words Urban Cultural Competitiveness, Cultural Indicators, culture statistics

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I Introduction

With the surging city competition under the background of economic globalization, the competitions in the soft power or cultural impact of cities around the world also intensified. Urban competitiveness is not only reflected in the level of economic growth and material life, but also prominently reflected in its cultural heritage and cultural identity. As Lewis Mumford said, culture is the life of city. Memorizing culture, spreading culture, and creating culture are the three basic missions of city.

Urban culture constitutes the inner mental factors of the entire city, reflecting people's values, spiritual aspirations, ways of thinking and inner identities within a region and also largely affecting the development direction and path of a city. In this context, to enhance urban cultural competitiveness, to develop and utilize urban cultural resources, to vigorously develop the cultural economy and to create a unique urban culture and urban personality have become the common focuses in development and construction of cities around the world. China's policy makers and urban managers also attach great importance to these issues.

In recent years, China's central cities, such as Beijing, Shanghai and Guangzhou, have proposed strategic goals of building world cultural centers or World Cities known for cultural appeal. Many other cities in China are also taking the enhancement of the competitiveness of urban culture as an important goal for future development. Yet generally speaking, compared with many world-famous cities such as New York, Paris, London, Tokyo and other cities, China's central cities still has problems like lacking of cultural confidence, unbalanced development of regional cultural industry, lagging behind of the construction of urban public cultural facilities, lacking of integrated use of cultural resources. Cities are following the same pattern and becoming similar and similar. All these are calling for Chinese city managers to explore methods to evaluate and then to enhance the competitiveness of urban culture.

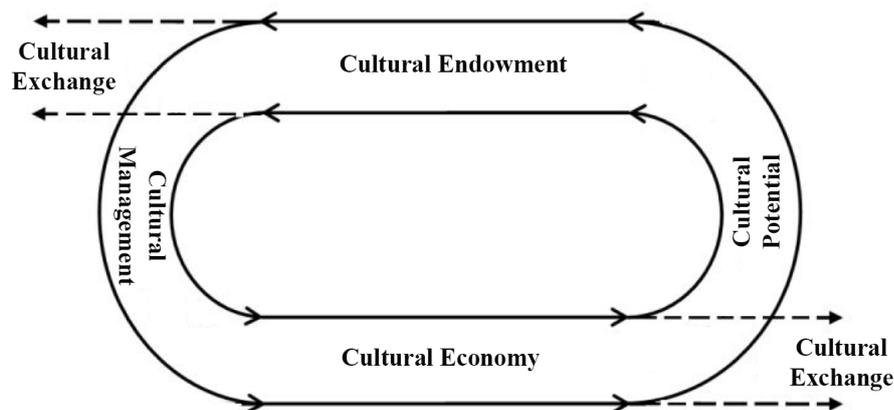
This paper is the central part of Chinese Urban Culture Competitiveness Report that is under my general editorship. This paper presents a "Runway Model" of the development of urban culture competitiveness and constructed a indicator system of

urban culture competitiveness based on five core factors. We collected data, calculated and analyzed the 55 cultural competitiveness indicators of 36 China's central cities. Status evaluation and case studies on urban cultural competitiveness of these cities are carried out in this paper. Problems and possible future paths of cultural development of cities are also discussed.

II the “Runway Model” and Indicator System

Based on the definitions of urban culture competitiveness made by other scholars, we propose a definition of urban culture competitiveness. It means the sum of tangible and intangible factors related to the spiritual or creative activities and its results of a city within a certain area.

The factors of urban cultural competitiveness are complex, which jointly function or act on the results in various ways and dimensions. We do not construct the theoretical model of urban culture competitiveness from single perspective such as industrial economy, cultural resource or government management, but from the perspective of a comprehensive, dynamic and mutually associated evaluation system. In this context, we will describe the urban cultural competitiveness as the result of combined action between internal and external factors, and we try to build a “Runway Model” of urban cultural competitiveness evaluation indicator system (which is shown below).



“Runway Model”: Indicator System of Chinese Urban Culture Competitiveness

It can be seen from the figure that the factor “Cultural Endowment” and “Cultural Economy” are two straights of the “runway”. The two factors determine the fundamental strengths of urban culture competitiveness. The “Cultural Management” factor and Cultural Potential factor as curve parts of the “runway” are recessive factors of urban culture development, and they are necessary conditions of gradual achievement of transcendence in the process of urban culture competitiveness “race”. Basically these four factors reflect the internal effects of urban culture, and ultimately shape a city through mutual functioning and connection of various factors.

Wherein the first factor - cultural endowment is the sum of basic cultural factors accumulated in the development process of cities since ancient times. The cultural endowment factor reflects the first culture competitiveness with the characteristics of perceptual intuition and original ecology. Cultural endowment factors consist of cultural resources and urban general conditions. Cultural resources factor, the spiritual wealth accumulated over the history of a city, manifested in the form of physical and nonphysical dimensions, such as tangible cultural heritages and intangible cultural heritages; urban general condition factor refers to the geographic conditions as well as environmental and economic conditions of a city. The urban general conditions factor, to a certain extent, affects the capacity of initial energy release and the start-up height during the cultural development, such as urban size, population, location, green coverage as well as urban economic indicators.

The second factor - cultural economy factor is the concentrated embodiments of economic capacities of urban culture. The cultural economy factors are the sum of value created in the process of modern cultural development of a city. Urban culture competitiveness is considered more from the perspective of creative industry and the cultural vitality. Cultural economy factor consists of cultural production factor, cultural consumption factor, and cultural enterprise factor. Cultural Production Factor manifests itself as productive capacity and value-creating ability of culture. They are one of the core factors of the urban cultural competitiveness, including the supply of

various types of cultural products, value added of cultural industry, etc. In terms of people's spiritual need, cultural consumption factor refers to the cultural participation, the possession, satisfaction and consumption of cultural goods and cultural services as well as the evaluation process of these behaviors. The indicators are per capita consumption expenditure of education, culture and entertainment, and movie box office income, etc. Cultural enterprise factor includes enterprises with production, operation and marketing of cultural products and services businesses. Enterprises are the direct producer and practitioner in economic sphere, providing the society with a range of cultural goods and services.

The third factor - cultural management factor refers to cultural policy, facility investments and other related management behaviors dominated by government of promoting cultural development of a city or a region. As reserve forces of supporting the development of regional culture, cultural management factor plays a key role in boosting and guiding regional development of cultural industries. Cultural management factor includes cultural organization factor and cultural facility factor. Cultural organization factor implements agencies to make policies, administration and marketing practices for cultural development of a region, including culturally relevant regulatory agencies established by government, which provide support like funding, preferential policy for cultural development in the region. Cultural facility factor is public cultural infrastructures, including museums, libraries, cultural centers, cinemas and theaters established by government or enterprises. These facilitates are to meet the basic needs for the local residents to carry out daily cultural activities, which will reflect the enthusiasm and capacity of cultural construction investment of a city.

Cultural potential factors are to achieve follow-up development of urban culture, include cultural innovation factor and cultural quality factor. Cultural innovation factors refer to the reform and comprehensive breakthrough of system, production methods, techniques, theory and relevant aspects in the process of urban culture development. The factors are forces to promote urban culture competitiveness, including indicators like newly increased patents grants, R & D funds. Cultural quality factor is levels of knowledge and talent pools to promote the urban culture

development; it is the direct driving force and the source of wisdom of urban development, including indicators like cultural quality of residents and level of education of residents, etc.

These above 4 factors are arranged according to certain logical order. The first factor (cultural endowment factor) is the basis of initial scale of urban culture competitiveness. The cultural management factor is the driving force during the rising stage of urban culture development. The cultural economy factor is major expressions of the process of how urban culture forms. The cultural potential factor is key points of expansion of urban culture scale and creation of long-term value.

In addition to internal factors, there are open sides of urban culture. Therefore, the evaluation system of urban culture competitiveness also needs to contain the perspective of culture impact and radiation. Cultural exchange factor is an important part of the model as well. Cultural communication factor contains therein reflect the influence of urban culture and also the ways, content and effects of external communication. Cultural opening factor embodies the inclusiveness and attractiveness of foreign culture. Therefore, the expansion from internal factors to external factors has been competed for urban culture competitiveness.

We have also built the first-grade, second-grade and third-grade framework of the indicator system of urban culture competitiveness as follows:

Main Framework of Indicator System of Urban Culture Competitiveness

First-grade Indicators	Second-grade Indicators	Third-grade Indicators
A1 Cultural Endowment	B1 Cultural Resource	Number of world cultural heritage; Number of national cultural relics protection units, etc.
	B2 General Condition	GDP per capita; disposable income per capita; etc.
A2 Cultural Economy	B3 Cultural Supply	Radio and television broadcast time; issued species of newspapers and periodicals; the numbers of film production; public libraries per 1,000 population, etc.
	B4 Cultural Consumption	The times of film watching per capita, annual film box office per capita, etc.
	B5 Cultural	The number of listed cultural enterprises in the

	Enterprise	domestic market, the number of employees of cultural industries, etc.
A3 Cultural Management	B6 cultural Organization	Expenditures of culture, sports and media; the number of cultural industry associations, etc.
	B7 Cultural Facility	The number of Public libraries, museums, cultural centers, cinemas, film screens, etc.
A4 Cultural Potential	B8 Cultural Innovation	The number of patents granted; expenditure of R & D, etc.
	B9 Cultural Quality	The number of students and graduate students in colleges and universities, etc.
A5 Cultural Exchange	B10 Cultural Communication	The number of internet users; radio and television coverage, etc.
	B11 Cultural Opening	The proportion of resident foreign population, tourist arrivals, tourism earnings, etc.

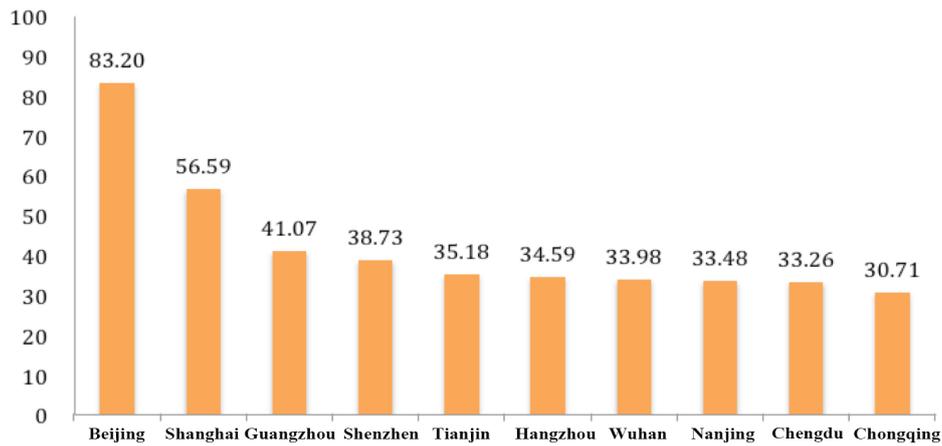
III Analysis Result: Distribution of Chinese urban culture competitiveness

By combining the expertise and mathematical tools together, we ultimately determine the weight of the indicators. As for three-grade indicator, coefficient of variation is adopted to determine the weight.

Urban Culture Competitiveness Indicator Weight

A1 Cultural Endowment	15%	B1 Cultural Resource	60%
		B2 General condition	40%
A2 Cultural Economy	24%	B3 Cultural Production	31%
		B4 Cultural Consumption	36%
		B5 Cultural Enterprise	33%
A3 Cultural Management	23%	B6 cultural Organization	52%
		B7 Cultural Facility	48%
A4 Cultural Potential	17%	B8 Cultural Innovation	53%
		B9 Cultural Quality	47%
A5 Cultural Exchange	21%	B10 Cultural Communication	50%
		B11 Cultural Opening	50%

According to the data in 2013, we calculate the “urban culture competitiveness indicators” of 36 cities in China and make rankings for each city. According to the rankings, the top 10 cities are: Beijing, Shanghai, Guangzhou, Shenzhen, Tianjin, Hangzhou, Wuhan, Nanjing, Chengdu and Chongqing (which can be shown as follows):



**Urban Cultural Competitiveness:
the Top 10 City in China**

According to the analysis results of 36 central cities, the levels of urban culture competitiveness of these Chinese urban centers are quite different and show a distributed state of stratification. Beijing and Shanghai have high level of overall economic strength and soft power. The two cities are in the first-level and have the highest average scores, far ahead of the cities of other levels. The second-level cities are which we defined as advantage-regions such as Guangzhou, Shenzhen, Tianjin, Hangzhou, Wuhan, Nanjing, Chengdu, Chongqing and Xi'an. The overall level of culture competitiveness reflects the advantages in the urban culture competitiveness of regional center cities and municipalities; the third-level cities are potential regions. The fourth-level cities are relatively disadvantaged areas. Most of the 10 cities belong to less developing or underdeveloped areas in the western part of China. The culture competitiveness is far lower than the overall average.



Specifically, the main characteristics of urban cultural competitiveness of China’s central cities are as follows:

First, there’s a positive correlativity between culture competitiveness and urban comprehensive development level. Comprehensive strength and development level of a city directly determine the culture competitiveness level of the city. Urban comprehensive strength of a city lays the foundation of the development of urban culture competitiveness.

Secondly, there are still significant gaps and imbalance among regions. There’re three economic belts in China: eastern economic belt, central economic belt and western economic belt. There are 18 cities in eastern economic belt and 7 belonging to the top 10; yet among the 10 cities in western economic belt, only Chongqing and Chengdu ascend to the top 10. The advantage of urban culture competitiveness of the rest Midwest cities is not obvious and most western cities rank in the later 20 lists. From the perspective of regional geographical division, urban culture competitiveness is different from region to region. Urban culture competitiveness of Eastern China has great advantage over other regions. Shanghai, Nanjing and Hangzhou are ranked on the top 10, showing that the overall culture competitiveness of the Yangtze River Delta is significantly higher than other parts of the country. Eastern China belongs to

the eastern coastal urban belt, with strong economic strength and relatively mature urban development.

Thirdly, urban culture competitiveness of municipalities and first-tier cities has an absolute advantage. Among the top 10 cities of comprehensive ranking, Beijing and Shanghai get scores 83.2 and 56.59 respectively. Various indicators appear to be strong, which are far ahead of other cities in the country and present the highest level of China's urban culture competitiveness at present.

Fourthly, the core factors of culture competitiveness flow to central cities by which the Matthew Effect appeared. Within a certain area, the core factors like high-quality resources, talents and technology are flowing to central cities, yet cultural development space and human resources of small cities are declining. Thus the culture development status shows that the strong urban culture becomes stronger and the weak culture gets weaker.

IV Conclusion

In the context of cultural globalization, urban culture competitiveness is the unique personality and vitality of one city. To some extent, urban culture has become the symbol of a nation or a country. World cities like New York, Paris and London are not just the centers of the world in an economic sense, but more importantly leading social life by way of strong cultural soft power and unique culture connotation. Based on continuous development and prosperity of national culture, cities in China are now struggling to preserve and develop its culture besides economic growth.