

## Research On The Impact Of Urban Amenity On Creative Talents Agglomeration In China

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### Abstract:

*In the era of the knowledge economy, creative talents, primarily engaged in "mental labor," have become the central element in the competitive landscape among cities. More and more cities, grounded in their unique local characteristics, view themselves as creative cities, adopting this new model to enhance urban competitiveness. Consequently, they focus on the spatial mobility and agglomeration mechanisms of creative talents, which have also emerged as a prominent research topic on the international stage. This study investigates creative talents as its primary subject, employing Urban Amenity Theory as its research perspective. Furthermore, it introduces subjective well-being as a mediating variable into the theoretical model. Employing methods such as theoretical deduction, theoretical induction, field research, systematic analysis, and a balanced emphasis on quantitative analysis, this study uncovers the causal pathways and influence effects between urban amenity and the phenomenon of creative talents' agglomeration through empirical analysis. By aligning these findings with the ongoing urban "war for talent," this study not only offers theoretical underpinnings for the development of "creative cities" but also furnishes empirical evidence supporting local governments in their efforts to attract and retain creative talents to meet the high-quality development requirements of their respective cities.*

**Keywords:** *Creative talents, Creative talents agglomeration, Subjective well-being, Urban amenity.*

### 1. Introduction

Since the onset of the 21st century, the creative economy and the resources of creative talents have emerged<sup>1</sup> as central drivers of urban and regional development (Florida, 2004). Notably, the share of value added by creative industries in China's GDP has steadily increased from 3.36% in 2013 to 4.56% in 2021. However, when compared to developed Western nations, China still lags behind significantly in this regard. Creative industries exhibit robust growth in both developed and developing countries, presenting an attractive option for advanced nations aiming to maintain their leadership in innovation and for

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developing nations pursuing value-added economic growth (He, 2018). The rise of the creative industry has spurred innovation within urban spaces, facilitating the transition from traditional "industrial cities" to vibrant "creative cities." This transformation has become an essential strategy for urban development in the post-industrialization era (Charles, 2012). Worldwide, an increasing number of cities, driven by their unique local characteristics, are embracing the concept of creative cities as a means to enhance urban competitiveness. Consequently, they are actively formulating development strategies that foster synergies between creative cities and creative industries, yielding significant results. In 2004, UNESCO endorsed the establishment of the Creative Cities Network, categorizing cities into seven types such as literary capitals, cinema capitals, and music capitals. This network serves as a platform for creative cities to engage in international cooperation, making creative and cultural industries central to regional development strategies. As of 2022, the Creative Cities Network boasts 180 member cities worldwide, with 16 Chinese cities actively participating in this global initiative (UNESCO, 2022).

In recent years, the study of the spatial mobility and agglomeration mechanism of creative talents has gained prominence within the realms of urban and economic geography. However, creative talents, who often exhibit heightened sensitivity to their environment, find traditional regional factors insufficient in explaining their choices. In response, the emerging concept of urban amenity theory, developed in recent years, offers a fresh perspective to elucidate the spatial mobility and agglomeration mechanisms, especially concerning innovative and high-end talents, including creative individuals (He, 2019). Urban amenity encompasses elements that generate a sense of well-being and satisfaction among residents. The collective experience and perception of these elements contribute significantly to urban amenity experiences, a vital source of happiness (Daniel, 2019). Creative talents, by nature, are not solely driven by economic considerations but also prioritize non-economic factors in their spatial mobility decisions (Cheng & Shi, 2009). In summary, the concepts of urban amenity and happiness have assumed critical roles as variables influencing the concentration of creative talents and the development of creative cities. These considerations underscore the complex interplay of economic and non-economic factors in attracting and retaining creative individuals in urban environments.

## **2. Literature Review**

### **2.1 Creative Talents Agglomeration**

Creative talents constitute a labor force characterized by entrepreneurial acumen, innovative prowess, and creative abilities. They possess the capacity to fulfill the demands of their roles while harnessing cultural resources and technological knowledge to engage in the conception, production, and management of various products. In the ensuing analysis within this paper, the researcher examines of creative talents centers on the employment statistics of three major industries, selected based on data availability, to facilitate a comprehensive exploration of pertinent issues: 1) Scientific Research and Technical Services, 2) Culture, Sports, and Entertainment, 3) Information Transmission, Software, and Information Technology Services. These three industries collectively serve as the statistical scope for understanding the agglomeration of creative talents.

Creative talents agglomeration refers to the process by which creative individuals migrate and cluster in specific geographic areas, driven by various factors including social, economic, and geographic conditions. This phenomenon results in a concentration of creative talents within a particular spatial locale (Jiang, 2018). It signifies both the free movement and self-selection of talented individuals and the outcome of the market's efficient allocation of talent resources (Yuan, 2018). To quantitatively assess the spatial agglomeration of creative talents, city-level data from China's 16 UNESCO-recognized creative cities were employed. This analysis identified six cities with the highest concentration of creative talents. Subsequently, a questionnaire survey was conducted among creative talents residing in these cities. The survey measured two key dimensions: inflow propensity and willingness to stay. Each dimension comprised two indicators for individuals and groups, resulting in a total of four measurement indicators.

## 2.2 Urban amenity

The concept of amenity, as it relates to urban economic development, was first introduced by the Western economist Ullman. He defined amenity as the pleasant and comfortable aspects of a natural landscape, encompassing factors such as climate, sunlight, and humidity. Ullman argued that amenity could drive population mobility and stimulate local economic growth (Ullman, 1954). Urban amenity represents a localized attribute—a quality inherent to a particular natural or man-made environment or feature of a region. This quality is unique to the locality and is not easily tradable in markets (Power, 1988). Measuring amenities presents a challenge since they resist quantification, unlike productive "capital" that augments market value or falls within the realm of direct purchases. Economists have attempted to construct hedonic models to evaluate the value of amenities, recognizing that amenities encompass not only natural features but also public infrastructure that enhances a place's desirability (Sill & Clark, 2002). In this paper, drawing from Chinese practice and research, the researcher defines the concept of urban amenity as qualities specific to a place. These qualities may pertain to elements such as environments, events, facilities, or services that evoke feelings of comfort, pleasure, and satisfaction in people's senses and emotions. While the academic community's understanding of urban amenity has grown clearer, classification remains a point of contention with no universal consensus. In alignment with Chinese practice and the focus of this study, the researcher proposes four distinct dimensions for measuring urban amenity: 1) Ecology and Facilities, 2) Culture and Education, 3) Economy and Society, 4) Amenity of Creativity and Innovation.

## 2.3 Subjective well-being

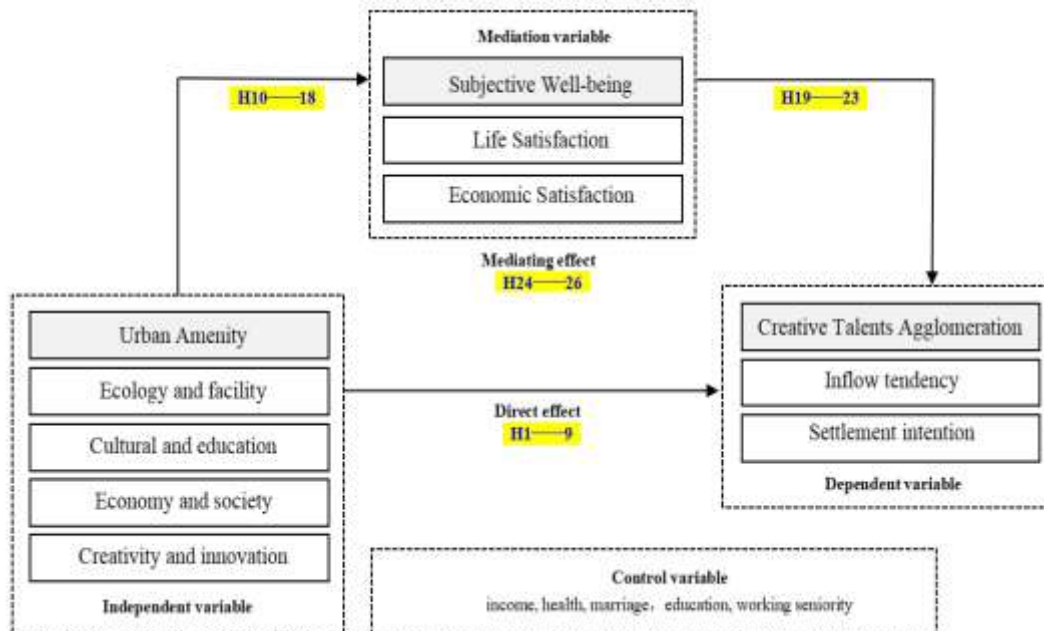
Subjective well-being, initially rooted in psychology and not universally defined, primarily revolves around individuals' holistic emotional and cognitive assessments of their overall quality of life. It represents a pivotal variable in research on the economics of well-being. In this study, the measurement of subjective well-being draws upon questions from various large-scale comprehensive social surveys in China, such as the China General Social Survey (CGSS) and the China Labor Dynamics Survey (CLDS): 1) China General Social Survey (CGSS) (2018): Question A36 on page 24 of the 2018 CGSS Individual Questionnaire asked, "Overall, do you feel happy in your life?" Respondents chose from five ranked options, ranging from "very unhappy" to "very happy" (CGSS2018). 2) China

Labor Dynamics Survey of Sun Yat-sen University (CLDS) (2018): In the Individual Questionnaire section, question item I 7.6 inquired about happiness on page 59: "Overall, do you think you are happy with your life?" Respondents could select their level of happiness on a scale from "very unhappy" to "very happy". Additionally, within this survey, two sub-questions on subjective well-being, "Life Satisfaction" and "Economic Satisfaction," closely related to subjective well-being, were included. This study treats subjective well-being as an ordered variable, assigned values from 1 to 7, with higher numbers signifying greater happiness. Moreover, it analyzes life satisfaction and economic satisfaction as two additional dimensions of subjective well-being, using the same evaluation scale.

### 3. Research Design

#### 3.1 Theoretical model

By amalgamating the preceding theoretical analysis and comprehensive literature review, the researcher has discerned the underlying structural interplay among the three variables: Urban amenity, subjective well-being, and creative talent agglomeration. Consequently, the researcher has formulated a theoretical model delineating the intricate relationships between Urban amenity, subjective well-being, and creative talent agglomeration, as shown in Figure 1:



**Figure 1 Theoretical model**

#### 3.2 Research hypotheses

Creative talents have higher professional skills and refined life tastes, rendering them more mobile and inclined to favor cities with elevated levels of Urban amenity. As their income levels reach a certain threshold, they develop heightened expectations for their living

environments and prospects for personal development. This heightened income sensitivity is a crucial prerequisite for the agglomeration of creative talents and serves as a foundational element in the construction of creative cities. Numerous scholars concur that Urban amenity stands as a substantial driving force behind the concentration of creative talents. Due to the asset-light nature of creative industries and the dual identity of creative talents, who function both as means of production and production tools, these individuals are considered to possess a high degree of mobility. Creative industries and advanced productive services both demonstrate a preference for establishing themselves in cities renowned for their high levels of amenity. Such locales are where creative talents are most willing to establish their residence. By integrating the two dimensions of city amenity and the two dimensions of creative talent agglomeration, this study establishes the following research hypotheses regarding the primary effects between the two core variables, as shown in Table 1:

**Table 1 Hypotheses related to Urban amenity and Creative talents agglomeration**

Code	Research Hypothesis
H1	Urban amenity is positively correlated with the Creative talents agglomeration
H2	Ecological and Facility amenity is positively correlated with the propensity of creative talent inflow
H3	Ecological and Facility amenity is positively correlated with creative talents' willingness to stay
H4	Cultural and educational amenity is positively correlated with the propensity for creative talent influx
H5	Cultural and Educational amenity is positively correlated with creative talents' willingness to stay
H6	Economic and social amenity is positively correlated with the propensity for creative talent influx
H7	Economic and Social amenity is positively correlated with creative talents' willingness to stay
H8	Creativity and innovation amenity is positively correlated with the tendency of creative talent inflow
H9	Creativity and Innovation amenity is positively correlated with creative talents' willingness to stay

Enhancing the urban amenity system serves to harness its positive externalities, thereby elevating the utility level of local residents and consequently enhancing their subjective well-being. The pursuit of happiness underpins all human activities, and happiness is inherently intertwined with an optimistic state of mind and good physical health. Moreover, the level of health exerts a significantly positive influence on subjective well-being (Lu et al., 2017). Human happiness and pleasure have distinct origins, and the role of the city is to gather individuals around amenities efficiently, fostering happiness (Ma, 2015). From an economic standpoint, utility and happiness are distinct yet intricately linked concepts. It is

reasonable to assume that, to some extent, an increase in the utility of the labor force, after controlling for factors such as health levels, can lead to an increase in happiness (Fan, 2021). By integrating the four dimensions of urban amenity and the two dimensions of subjective well-being, this study formulates the following research hypotheses, as shown in Table 2:

**Table 2 Hypotheses related to Urban amenity and Subjective well-being**

<b>Code</b>	<b>Research Hypothesis</b>
H10	Urban amenity is positively correlated with Subjective well-being
H11	Ecological and Facility amenity is positively correlated with life satisfaction
H12	Ecological and Facility amenity is positively correlated with economic satisfaction
H13	Cultural and educational amenity is positively correlated with life satisfaction
H14	Cultural and educational amenity is positively correlated with economic satisfaction
H15	Economic and social amenity is positively correlated with life satisfaction
H16	Economic and social amenity is positively correlated with economic satisfaction
H17	Creativity and innovation amenity is positively correlated with life satisfaction
H18	Creativity and innovation amenity is positively correlated with economic satisfaction

Creative talents possess high professional skills and refined lifestyles, exhibit strong mobility, and tend to favor cities with elevated levels of urban amenity. As their income reaches a certain threshold, they tend to have higher expectations for their living environment and development prospects, and they become more sensitive to their perception of subjective well-being. This heightened sensitivity is an essential prerequisite for the agglomeration of creative talents and serves as a fundamental basis for the construction of creative cities. By integrating the two dimensions of subjective well-being and the two dimensions of creative talent agglomeration, this study formulates the following research hypotheses, as shown in Table 3:

**Table 3 Hypotheses related to Subjective well-being and Creative talents agglomeration**

<b>Code</b>	<b>Research Hypothesis</b>
H19	Subjective well-being is positively correlated with the Creative talents agglomeration
H20	Life satisfaction is positively correlated with the propensity for creative talent influx
H21	Economic satisfaction is positively correlated with the propensity for creative talent influx
H22	Life satisfaction is positively correlated with creative talents' Stay willingness

H23	Economic satisfaction is positively correlated with creative talents' Stay willingness
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This study formulates a comprehensive urban amenity evaluation index system, considering the unique attributes of creative talents. It innovatively introduces subjective well-being as a mediating variable into the model to empirically analyze the relationship between urban amenity and creative talent agglomeration. Drawing from relevant research findings, the researcher selects appropriate control variables and make research attempts to hypothesize the mediating role of subjective well-being, as shown in Table 4:

**Table 4 Hypotheses related to the intermediary effect of Subjective well-being**

Number	Research Hypothesis
H24	Subjective well-being mediates between Urban amenity and Creative talents agglomeration
H25	Life satisfaction mediates between Urban amenity and Creative talents agglomeration
H26	Economic satisfaction mediates between Urban amenity and Creative talents agglomeration

### 3.3 Measurement of variables

There is no universally standardized framework for constructing measurement scales, as different evaluation objects and perspectives yield distinct indicator systems. Over time, a set of fundamental principles guiding the construction of such indicator systems has emerged through practical experience. In this study, the researcher takes the theory of Urban amenity as a guiding principle. The researcher aligns it with the actual needs of the Chinese population for an improved quality of life and employs a design method that combines theory and empirical evidence to formulate the dimensions, indices, and survey questions for relevant variable measurements. The design and quantification of these variables represent a refined expression of the research hypotheses. Building upon the exploration of the dimensions of relevant variables and the underlying assumptions presented in the previous section, the researcher establishes an empirical research framework, referred to as 'Urban amenity - Subjective well-being - Creative talents agglomeration.' This framework identifies three categories of variables to be measured: 1) Measurement of Urban amenity, 2) Measurement of subjective well-being, 3) Measurement of creative talent agglomeration.

#### 1) Measurement of the independent variable Urban amenity

To operationalize Urban amenity within the local context, it is imperative to conduct a detailed analysis of the inner structure of the Urban amenity system. This analysis aims to gain insights and pinpoint the factors crucial for attracting creative talents to the city. After elucidating the concept of Urban amenity, the researcher, guided by the connotations of Urban amenity, follows the principles of scale measurement and incorporates previous research findings. The intention is to measure Urban amenity across four dimensions: ecology and facilities, culture and education, economy and society, and creativity and

innovation. as shown in Table 5 below:

**Table 5 Urban amenity Measurement Scale**

<b>Dimens ionality</b>	<b>Indicators</b>	<b>No.</b>	<b>Content</b>	<b>Sources</b>
Ecological and Facility	Ecology	UA01	The ecological environment of this city makes me feel very livable	Clark (2002)
	Public Services	UA02	This city's public services are convenient and efficient	Wen (2016) Ma (2018)
	Public Facilities	UA03	This city has excellent public facilities	Lu (2018)
	Network Communication	UA04	This city has a good network of communication	Hu (2021)
Culture and Education	Educational Environment	UA05	I feel very satisfied with the educational environment in this city	Florida (2002)
	Education level	UA06	The city has a high level of education among its residents	Ma (2018) Wu (2020)
	Cultural Facilities	UA07	This city has great cultural facilities	Wang (2020)
	Cultural Diversity	UA08	The city's lifestyle is very meta	He (2021)
Economic and Social	Standard of living	UA09	Feel less pressure to live in the city	Yu (2016)
	Economic Vitality	UA10	This city has a high economic vitality	Shang (2017) Lu (2018)
	Degree of openness	UA11	This city is very open	Lin (2019)
	Degree of Inclusion	UA12	This city is very tolerant	Wu (2020)
Creativity and Innovation	Creative places	UA13	This city's creative parks and recreational spaces many	Wen (2016)
	Creative Talent	UA14	This city has a lot of creative talent	Yu (2016)
	Innovation Policy	UA15	The city's policies to encourage innovation are generous	Ma (2018) Ho (2021)
	Creative Industries	UA16	This city has a well-developed creative industry	Hofeleon (2022)

## 2) Measurement of the dependent variable Creative talents agglomeration



The measurement comprises two dimensions: inflow propensity and willingness to stay. Each dimension is further divided into two indicators: individual and group. The pertinent questionnaire items are presented in Table 6 below.

**Table 6 Creative talents agglomeration Measurement Scale**

Dimensionality	No.	Content	Sources
Inflow tendency	CTA01	This city has a strong attraction for me	Heberle (1938)
	CTA02	This city has a strong demand for many creative talents	Yuan (2017) Wu (2020)
Stay willingness	CTA03	I would like to stay in this city to live	Fan (2021)
	CTA04	Many of the creative minds living in this city are not Willingness to leave	

### 3) Measurement of the mediating variable Subjective well-being

The measurement of subjective well-being in this study is based on the questionnaire design of "subjective well-being" in various large-scale comprehensive social surveys in China, such as the China General Social Survey (CGSS) and the China Labor Dynamics Survey (CLDS). Two specific questions are used: i) Question A36 on page 24 of the 2018 China General Social Survey (CGSS) Individual Questionnaire: "Overall, do you feel happy in your life?" Responses are categorized into five levels, ranging from very unhappy to very happy (CGSS 2018). ii) In the 2018, China Labor Dynamics Survey of Sun Yat-sen University (CLDS), Individual Questionnaire section, there is a question item I 7.6 titled Happiness, found on page 59: "Overall, do you think you are happy with your life?" In addition to the general happiness question, this survey includes two sub-questions related to subjective well-being: "Life satisfaction" and "Economic satisfaction." These sub-questions are closely associated with subjective well-being. In this study, subjective well-being is treated as an ordered variable with values ranging from 1 to 7, where a higher number indicates a stronger sense of well-being. Life satisfaction and economic satisfaction are considered as two

additional dimensions of subjective well-being, assessed using the same criteria. The measurement scale of subjective well-being based on Urban amenity is detailed in Table 7 below:

**Table 7 Measurement Scale of Subjective well-being**

Dimensionality	No.	Content	Sources
			Diener (1999)
	SWB01	Overall, I feel happy with my life	CGSS (2018)
			CLDS (2018)

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			Wu (2020)
Life satisfaction	SWB02	I am happy with my life	CLDS (2018)
Economic satisfaction	SWB03	I am happy with my financial situation	Wu (2020)

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#### 4) Measurement of control variables

The control variables encompass five indicators: health status, income status, marital status, length of employment, and education level. Measurement of these indicators is conducted through the personal basic information section of the questionnaire in conjunction with a set of questions for statistical purposes.

### 4. Empirical Analysis

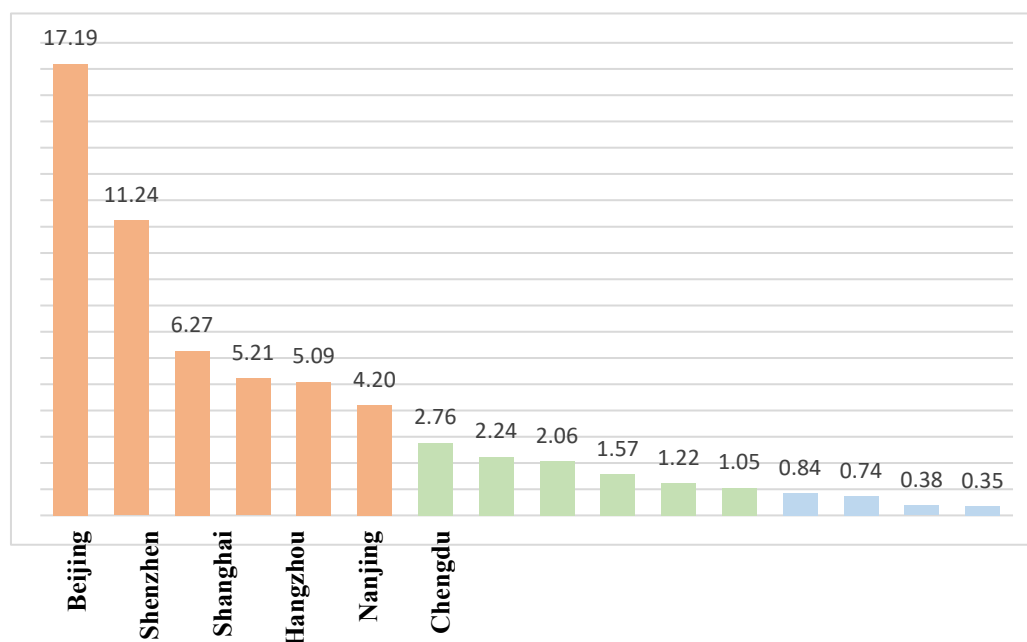
#### 4.1 Determination of Research Locations

Based on the city panel data from 2010 to 2021, the researcher calculated the degree of creative talents agglomeration of 16 Chinese creative cities (location entropy method) and ranked them. The top 6 cities were selected for the next step of individual questionnaire research. The specific method is as follows: The researcher found the relevant data in the China Labor Statistics Yearbook and China Urban Statistics Yearbook, counted the number of creative talents in the 16 Chinese creative cities, and evaluated the degree of concentration of creative talents in these cities using the locational entropy method. The calculation formula is as follows:

$$LQ = \frac{N_{cj}/N_j}{N_c/N}$$

Note: In the formulas below, LQ denotes the city-level entropy of city j,  $N_{cj}$  is the number of creative talents in city j,  $N_j$  is the year-end resident population in city j,  $N_c$  is the number of creative talents in the country, and N is the year-end population in the country.

Based on the aforementioned calculation results, the researcher identified six cities with the highest concentration of creative talents (location entropy LQ) among the 16 creative cities in China. These cities are Beijing, Shenzhen, Shanghai, Hangzhou, Nanjing, and Chengdu, as shown Figure 2:



**Figure 2 Mean value of locational entropy in China's creative cities, 2010-2021**

The questionnaire survey was conducted in the aforementioned six cities among creative talents located within creative industry parks. The research data were acquired through the researcher's on-site visits to creative talents in these creative industry parks, providing on-site guidance to respondents to complete the questionnaires. Additionally, the 'Questionnaire Star' network channel was utilized for questionnaire distribution. A total of 900 questionnaires were distributed, out of which 843 were successfully recovered. Subsequently, 33 individuals who were 'not related to creativity' were excluded based on their responses to the 'your occupational category' section of the questionnaire. This resulted in 810 valid questionnaires, involving 810 creative talents.

#### 4.2 Descriptive statistical analysis

An examination of the sample of creative talents through descriptive statistics reveals distinctive characteristics in the concentration of creative talents in China. These characteristics include a predominantly unmarried population, relatively short working years, a high level of education, a diversity of labor types, a wide distribution across employment industries, and a high level of after-tax income.

#### 4.3 Confirmatory factor analysis

A structural equation model was constructed based on the study's framework. The independent variables consist of four latent variables: ecology and facilities, culture and education, economy and society, and creativity and innovation, along with 16 observed variables. The results of this construction are illustrated in Figure 3 below:

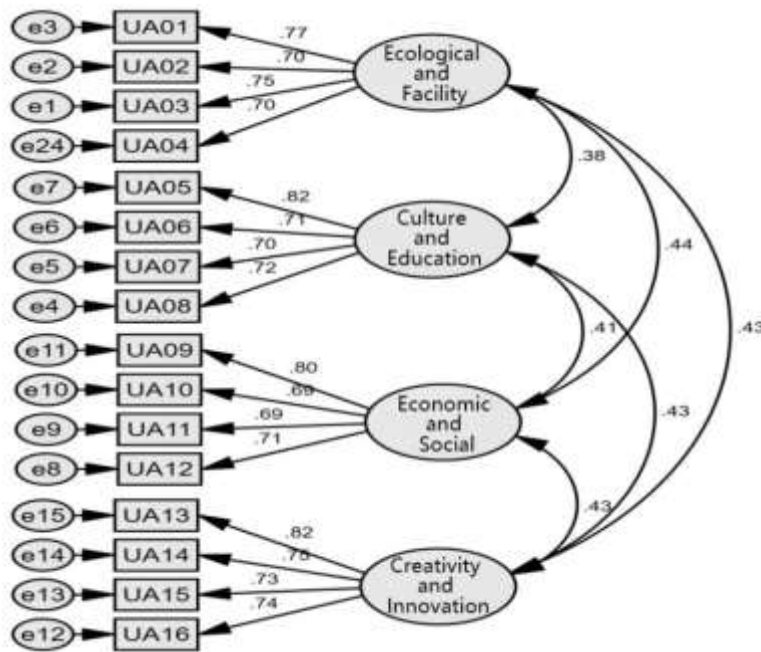


Figure 3 Structural equation model of Urban amenity

The data collected from the questionnaire were imported into AMOS 23.0 software, and the model fitting parameters, obtained using the maximum likelihood method, are presented in Table 8. In Table 9, it is noteworthy that the absolute values of the factor loading coefficients are all greater than 0.6 and demonstrate statistical significance. This indicates a robust measurement relationship.

Table 8 Goodness-of-fit test

$\chi^2$	df	$\chi^2/df$	p	GFI	AGFI	RMSEA	RMR	CFI	NFI
221.729	98	2.263	0.000	0.969	0.957	0.040	0.056	0.976	0.958

Table 9 Tests of aggregation validity

latent variable	Label	Factor loading factor	CR value	p	Average variance extraction value	Combination reliability
Ecological and Facility	UA01	0.767	-	-	0.532	0.819
	UA02	0.698	18.298	0		
	UA03	0.746	19.393	0		
	UA04	0.704	18.434	0		

	UA05	0.822	-	-		
Culture and Education	UA06	0.705	19.668	0	0.545	0.827
	UA07	0.704	19.633	0		
	UA08	0.716	19.967	0		
	UA09	0.805	-	-		
Economic and Social	UA10	0.689	18.618	0	0.526	0.815
	UA11	0.688	18.596	0		
	UA12	0.712	19.22	0		
	UA13	0.817	-	-		
Creativity and Innovation	UA14	0.746	21.47	0	0.577	0.845
	UA15	0.73	20.966	0		
	UA16	0.741	21.319	0		

In summary, the Urban amenity model proposed in this study has a good fit, and all the indicators show more excellent fitting results, indicating that the model has a high degree of reliability and validity.

#### 4.4 Common method bias test

To mitigate common method bias, an anonymous survey approach was employed in this study. The Harman one-way test was conducted to assess the presence of common method bias. In this analysis, seven factors with characteristic roots greater than one were extracted, and the variance explained by the first factor was 29.290%, which is less than the threshold of 40%. Consequently, it can be concluded that there is no significant common method bias in this study.

#### 4.5 Correlation Analysis

##### 1) Correlation analysis of Urban amenity and Creative talents agglomeration

Correlation analysis was employed to investigate the relationship between inflow propensity, willingness to stay, and the four dimensions of ecology and facilities, culture and education, economy and society, and creativity and innovation. The strength of the correlation was expressed using the Pearson correlation coefficient. As indicated by the results in Table 10, a significant positive correlation was observed between all dimensions.

**Table 10 Correlation analysis of Urban amenity and creative talents agglomeration**

	Ecological and Facility	Culture and Education	Economic and Social	Creativity and Innovation	Inflow tendency	Stay willingness
Ecological and Facility	1	.329**	.374**	.363**	.310**	.268**

Culture and Education	.329**	1	.357**	.380**	.295**	.264**
Economic and Social Creativity and Innovation	.374**	.357**	1	.377**	.328**	.281**
Inflow tendency	.363**	.380**	.377**	1	.321**	.289**
Stay willingness	.310**	.295**	.328**	.321**	1	.135**
	.268**	.264**	.281**	.289**	.135**	1

\* p<0.05 \*\* p<0.01

## 2) Correlation analysis between Urban amenity and Subjective well-being

Correlation analysis was employed to examine the relationship between life satisfaction, economic satisfaction, and the four dimensions of ecology and facilities, culture and education, economy and society, and creativity and innovation. The strength of the correlation was assessed using the Pearson correlation coefficient. As revealed by the results in Table 11, a significant positive correlation was found between each dimension.

**Table 11 Correlation between Urban amenity and Subjective Well-being**

	Ecological and Facility	Culture and Education	Economic and Social	Creativity and Innovation	Life satisfaction	Economic satisfaction
Ecological and Facility	1	.329**	.374**	.363**	.302**	.161**
Culture and Education	.329**	1	.357**	.380**	.269**	.191**
Economic and Social Creativity and Innovation	.374**	.357**	1	.377**	.287**	.233**
Life satisfaction	.363**	.380**	.377**	1	.313**	.180**
Economic satisfaction	.302**	.269**	.287**	.313**	1	.417**
	.161**	.191**	.233**	.180**	.417**	1

\* p<0.05 \*\* p<0.01

## 3) Correlation analysis between subjective well-being and creative talent pooling

Correlation analysis was employed to explore the relationship between inflow propensity, willingness to stay, life satisfaction, and economic satisfaction. Pearson's correlation coefficient was utilized to quantify the strength of these correlations. According to the

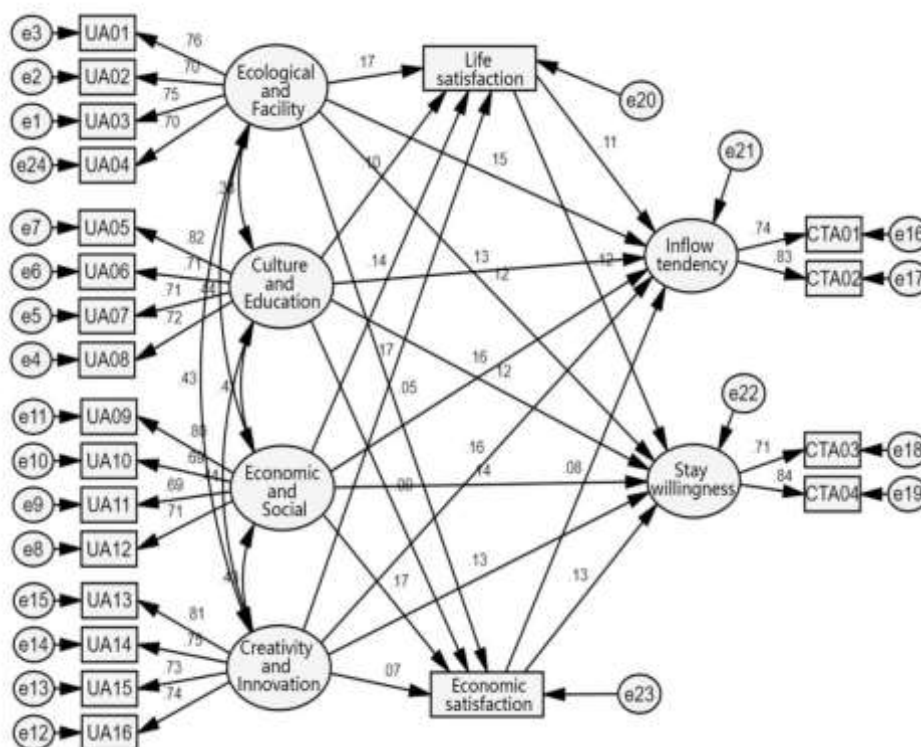
results in Table 12, a significant positive correlation was observed between these dimensions.

**Table 12 Correlation between subjective well-being and creative talent pooling**

	Life satisfaction	Economic satisfaction	Inflow tendency	Stay willingness
Life satisfaction	1	.417**	.290**	.292**
Economic satisfaction	.417**	1	.223**	.254**
Inflow tendency	.290**	.223**	1	.135**
Stay willingness	.292**	.254**	.135**	1

\* p<0.05 \*\* p<0.01

**4.6 SEM Analysis**



**Figure 4 Structural equation modeling (SEM)**

**Table 13 Model fitting parameters**

Indicator Category	Indicator Name	Adaptation standards	Test results	Acceptable or not
Absolute suitability parameters	GFI	>0.8	0.954	Acceptance
	AGFI	>0.8	0.938	Acceptance
	RMSEA	<0.08	0.041	Acceptance

Value-added suitability parameters	NFI	>0.8	0.935	Acceptance
	IFI	>0.8	0.961	Acceptance
	CFI	>0.8	0.961	Acceptance
	RFI	>0.8	0.918	Acceptance
Parameter of minimalist suitability	CMIN/df	<3	2.389	Acceptance
	PGFI	>0.5	0.698	Acceptance

The data collected from the questionnaire were imported into AMOS 23.0, and the model fitting parameters obtained using the maximum likelihood method are presented in Table 13. As evident from Table 13, the displayed values of most fitted parameters meet the standard requirements, signifying an excellent fit of the model. Therefore, the structural equation model demonstrates a strong fit with the sample data acquired from the questionnaire. The results of the correlation path analysis are provided in Table 14:

**Table 14 Path effect test**

Paths	Standard ization factor path	Non- normaliz ed coefficie nt path	S.E.	C.R.	P
Life satisfaction ← Ecological and Facility	0.167	0.202	0.054	3.745	***
Life satisfaction ← Culture and Education	0.098	0.133	0.058	2.274	0.023
Life satisfaction ← Economic and Social	0.137	0.183	0.06	3.044	0.002
Life satisfaction ← Creativity and Innovation	0.167	0.212	0.056	3.752	***
Economic satisfaction ← Ecological and Facility	0.049	0.064	0.06	1.061	<b>0.289</b>
Economic satisfaction ← Culture and Education	0.087	0.126	0.066	1.918	<b>0.055</b>
Economic satisfaction ← Economic and Social	0.174	0.249	0.068	3.656	***



Economic satisfaction	<— —	Creativity and Innovation	0.069	0.094	0.063	1.489	<b>0.136</b>
Inflow tendency	<— —	Life satisfaction	0.112	0.097	0.035	2.787	0.005
Stay willingness	<— —	Economic satisfaction	0.13	0.103	0.031	3.361	***
Stay willingness	<— —	Life satisfaction	0.117	0.099	0.035	2.861	0.004
Inflow tendency	<— —	Economic satisfaction	0.084	0.068	0.031	2.232	0.026
Inflow tendency	<— —	Ecological and Facility	0.147	0.155	0.053	2.919	0.004
Inflow tendency	<— —	Culture and Education	0.129	0.151	0.057	2.646	0.008
Inflow tendency	<— —	Economic and Social	0.156	0.181	0.06	3.015	0.003
Inflow tendency	<— —	Creativity and Innovation	0.164	0.181	0.056	3.253	0.001
Stay willingness	<— —	Ecological and Facility	0.115	0.118	0.052	2.264	0.024
Stay willingness	<— —	Culture and Education	0.117	0.133	0.056	2.361	0.018
Stay willingness	<— —	Economic and Social	0.14	0.157	0.059	2.668	0.008
Stay willingness	<— —	Creativity and Innovation	0.13	0.139	0.055	2.552	0.011

### 1) Path analysis of Urban amenity to subjective well-being:

Ecology and facilities have a significant positive effect on life satisfaction ( $\beta=0.167$ ,  $p<0.05$ ). Culture and education have a significant positive effect on life satisfaction ( $\beta=0.098$ ,  $p<0.05$ ). Economy and society have a significant positive effect on life satisfaction ( $\beta=0.137$ ,  $p<0.05$ ). Creativity and innovation have a significant positive effect

on life satisfaction ( $\beta=0.167$ ,  $p<0.05$ ). Ecology and facilities do not have a significant positive effect on economic satisfaction ( $\beta=0.049$ ,  $p>0.05$ ). Culture and education do not have a significant positive effect on economic satisfaction ( $\beta=0.087$ ,  $p>0.05$ ). Economy and society have a significant positive effect on economic satisfaction ( $\beta=0.174$ ,  $p<0.05$ ). Creativity and innovation have a significant positive effect on economic satisfaction ( $\beta=0.069$ ,  $p>0.05$ ).

## 2) Path analysis of subjective well-being to creative talents aggregation:

Life satisfaction has a significant positive effect on inflow propensity ( $\beta=0.112$ ,  $p<0.05$ ). Economic satisfaction has a significant positive effect on the willingness to stay ( $\beta=0.13$ ,  $p<0.05$ ). Life satisfaction has a significant positive effect on the willingness to stay ( $\beta=0.117$ ,  $p<0.05$ ). Economic satisfaction has a significant positive effect on the inflow propensity ( $\beta=0.084$ ,  $p<0.05$ ).

## 3) Path analysis of Urban amenity to creative talents agglomeration:

Ecology and facilities have a significant positive influence on inflow tendency ( $\beta=0.147$ ,  $p<0.05$ ). Culture and education have a significant positive influence on inflow tendency ( $\beta=0.129$ ,  $p<0.05$ ). Economy and society have a significant positive influence on inflow tendency ( $\beta=0.156$ ,  $p<0.05$ ). Creativity and innovation have a significant positive influence on inflow tendency ( $\beta=0.164$ ,  $p<0.05$ ). Ecology and facilities have a significant positive effect on propensity to stay ( $\beta=0.115$ ,  $p<0.05$ ). Culture and education have a significant positive effect on propensity to stay ( $\beta=0.117$ ,  $p<0.05$ ). Economy and society have a significant positive effect on propensity to stay ( $\beta=0.14$ ,  $p<0.05$ ). Creativity and innovation have a significant positive effect ( $\beta=0.13$ ,  $p<0.05$ ).

## 4.7 Mediating effect test

### (1) The mediation test of life satisfaction between Urban amenity and creative talents agglomeration

Using Urban amenity as the independent variable, life satisfaction as the mediating variable, and creative talents agglomeration as the dependent variable, a mediating effect test is conducted using stratified regression. This test is divided into three models, as shown in Table 15:

**Table 15 Mediating effect model test**

	<b>Creative talents agglomeration</b>	<b>Life satisfaction</b>	<b>Creative talents agglomeration</b>
Constants	1.430** (12.385)	0.958** (5.618)	1.289** (11.213)
Urban amenity	<b>0.618**</b> <b>(18.268)</b>	<b>0.630**</b> <b>(12.611)</b>	<b>0.525**</b> <b>(14.531)</b>

	Creative talents agglomeration	Life satisfaction	Creative talents agglomeration
Life satisfaction			<b>0.147**</b> <b>(6.326)</b>
Sample size	810	810	810
R 2	0.292	0.164	0.326
Adjustment R 2	0.291	0.163	0.324
F Value	F(1,808)=333.705. p=0.000	F(1,808)=159.037. p=0.000	F(2,807)=194.920. p=0.000

\* p<0.05 \*\* p<0.01 t-values in parentheses

In Model 1, there is a significant positive effect of Urban amenity on creative talents agglomeration ( $\beta = 0.618$ ,  $p < 0.05$ ), indicating a significant total effect. In Model 2, there is a significant positive effect of Urban amenity on life satisfaction ( $\beta = 0.630$ ,  $p < 0.05$ ). Model 3 adds the mediating variable of life satisfaction based on Model 1. At this point, there is a significant positive effect of Urban amenity on creative talents agglomeration ( $\beta = 0.525$ ,  $p < 0.05$ ), indicating a significant direct effect. There is also a significant positive effect of the mediating variable, life satisfaction, on creative talents agglomeration ( $\beta = 0.147$ ,  $p < 0.05$ ). The analysis results suggest that the mediating variable, life satisfaction, plays a partial mediating role in the relationship between Urban amenity and creative talents agglomeration.

**Table 16 Summary of test results of mediating role**

item	c Total effect	a*b Intermediary Effect Value	a*b (95% BootCI)	c' Direct effect	Test conclusion
Urban amenity → Life Satisfaction → Creative talents agglomeration	0.618**	0.093	0.056 ~ 0.109	0.525**	Some agents

\* p<0.05 \*\* p<0.01

From Table 16 above, it can be observed that in the intermediary path "Urban amenity→life satisfaction→creative talent pooling," the mediating effect of life satisfaction is 0.093, with a bootstrap confidence interval of 0.056 to 0.109. Importantly, this interval does not include 0, signifying that the mediating effect is statistically significant.

## 2) The mediation test of economic satisfaction between Urban amenity and Creative

**talents agglomeration**

Using Urban amenity as the independent variable, economic satisfaction as the mediator variable, and creative talents agglomeration as the dependent variable, a mediation effect test is conducted through stratified regression. This analysis is divided into three models, as presented in Table 17:

**Table 17 Mediating effect model test**

	Creative talents agglomeration	Economic satisfaction	Creative talents agglomeration
Constants	1.430** (12.385)	1.545** (8.033)	1.232** (10.501)
Urban amenity	0.618** (18.268)	0.438** (7.784)	0.562** (16.383)
Economic satisfaction			0.128** (6.218)
Sample size	810	810	810
R <sup>2</sup>	0.292	0.070	0.325
Adjustment R <sup>2</sup>	0.291	0.069	0.323
F Value	F (1,808)=333.705,p=0.000	F (1,808)=60.590,p=0.000	F (2,807)=193.960,p=0.000

\* p<0.05 \*\* p<0.01 t-values in parentheses

In Model 1, there is a significant positive effect of Urban amenity on creative talents agglomeration ( $\beta = 0.618$ ,  $p < 0.05$ ), indicating a significant total effect. In Model 2, there is a significant positive effect of Urban amenity on economic satisfaction ( $\beta = 0.438$ ,  $p < 0.05$ ). Model 3 introduces the mediating variable economic satisfaction on the basis of Model 1. At this point, there is a significant positive effect of Urban amenity on creative talents agglomeration ( $\beta = 0.562$ ,  $p < 0.05$ ), indicating that the direct effect is significant. Moreover, the mediating variable economic satisfaction has a significant positive effect on creative talents agglomeration ( $\beta = 0.128$ ,  $p < 0.05$ ). Based on this analysis, it can be concluded that the mediating variable economic satisfaction plays a partial mediating role in the relationship between Urban amenity and creative talents agglomeration.

**Table 18 Summary of test results of mediating role**

item	c Total effect	a*b Intermediary Effect Value	a*b (95% BootCI)	c' Direct effect	Test conclusion
Urban amenity → Economic	0.618**	0.056	0.030 ~ 0.071	0.562**	Some agents

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Satisfaction  
→ Creative  
talents  
agglomeration

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\*  $p < 0.05$  \*\*  $p < 0.01$

The table above, Table 18, illustrates that in the mediating path "Urban amenity→economic satisfaction→creative talent pooling," the mediating effect of economic satisfaction is 0.056. Additionally, the confidence interval obtained through bootstrapping is 0.030 to 0.071, and this interval does not contain the value 0. These results indicate that the mediating effect is statistically significant.

### 3) The mediation test of subjective well-being between Urban amenity and creative talents agglomeration

In this analysis, Urban amenity serves as the independent variable, with subjective well-being acting as the mediating variable, and creative talents agglomeration as the dependent variable. The mediation effect test is conducted through stratified regression and is divided into three models, as shown in Table 19:

**Table 19 Mediating effect model test**

	Creative talents agglomeration	Subjective well-being	Creative talents agglomeration
Constants	1.430** (12.385)	1.220** (7.631)	1.230** (10.554)
Urban amenity	0.618** (18.268)	0.570** (12.175)	0.524** (14.619)
Subjective well-being			0.165** (6.643)
Sample size	810	810	810
R <sup>2</sup>	0.292	0.155	0.329
Adjustment R <sup>2</sup>	0.291	0.154	0.327
F Value	F (1,808)=333.705,p=0.000	F (1,808)=148.226,p=0.000	F (2,807)=197.828,p=0.000

\*  $p < 0.05$  \*\*  $p < 0.01$  t-values in parentheses

In Model 1, a significant positive effect of Urban amenity on creative talents agglomeration is observed ( $\beta = 0.618$ ,  $p < 0.05$ ), signifying a substantial total effect. In Model 2, there exists a significant positive effect of Urban amenity on subjective well-being ( $\beta = 0.570$ ,  $p < 0.05$ ). In Model 3, incorporating the mediating variable subjective well-being into the framework established in Model 1, a significant positive effect of Urban amenity on creative talents agglomeration persists ( $\beta = 0.524$ ,  $p < 0.05$ ), underscoring the significance

of the direct effect. Furthermore, the mediating variable subjective well-being exhibits a substantial positive effect on creative talents agglomeration ( $\beta = 0.165$ ,  $p < 0.05$ ). Based on this analysis, it becomes evident that the mediating variable, Subjective well-being, plays a partial mediating role in the relationship between Urban amenity and creative talents agglomeration.

**Table 20 Summary of test results of mediating role**

item	c Total effect	a*b Intermediary Effect Value	a*b (95% BootCI)	c' Direct effect	Test conclusion
Urban amenity → Subjective well-being → Creative talents agglomeration	0.618**	0.094	0.059 ~ 0.110	0.524**	Some agents

\*  $p < 0.05$  \*\*  $p < 0.01$

Table 20 reveals that in the mediating path "Urban amenity → subjective well-being → creative talent pooling," the mediating effect of subjective well-being is 0.094, with a bootstrap confidence interval of 0.059 to 0.110. Notably, this interval does not encompass 0, underscoring the significance of the mediating effect.

#### 4.8 Summary of hypothesis testing results

Through data processing using AMOS 23.0 statistical software, this paper has examined 26 research hypotheses centered on Urban amenity and creative talents agglomeration. Among these, 3 hypotheses were not supported, and 1 hypothesis was partially supported. In general, the majority of the theoretical assumptions proposed in this paper have found empirical support, demonstrating a strong alignment between the research problem and real-world conditions. This completes the main research objectives and successfully achieves the research goals. The results of hypothesis testing are summarized in Table 21:

**Table 21 Summary of hypothesis testing results**

Code	Research Hypothesis	Results
H1	Urban amenity is positively correlated with the Creative talents agglomeration	Supported
H2	Ecological and Facility amenity is positively correlated with the propensity of creative talent inflow	Supported
H3	Ecological and Facility amenity is positively correlated with creative talents' Stay willingness	Supported

H4	Cultural and educational amenity is positively correlated with the propensity for creative talent influx	Supported
H5	Cultural and educational amenity is positively correlated with creative talents' Stay willingness	Supported
H6	Economic and social amenity is positively correlated with the propensity for creative talent influx	Supported
H7	Economic and social amenity is positively correlated with the willingness of creative talents to stay	Supported
H8	Creativity and innovation amenity is positively correlated with the tendency of creative talent inflow	Supported
H9	Creativity and innovation amenity is positively correlated with creative talents' Stay willingness	Supported
H10	Urban amenity is positively correlated with Subjective well-being	Partial Supported
H11	Ecological and Facility amenity is positively correlated with life satisfaction	Supported
H12	Ecological and Facility amenity is positively correlated with economic satisfaction	Unsupported
H13	Cultural and educational amenity is positively correlated with life satisfaction	Supported
H14	Cultural and educational amenity is positively correlated with economic satisfaction	Unsupported
H15	Economic and social amenity is positively correlated with life satisfaction	Supported
H16	Economic and social amenity is positively correlated with economic satisfaction	Supported
H17	Creativity and innovation amenity is positively correlated with life satisfaction	Supported
H18	Creativity and innovation amenity is positively correlated with economic satisfaction	Unsupported
H19	Subjective well-being is positively correlated with the Creative talents agglomerations	Supported
H20	Life satisfaction is positively correlated with the propensity for creative talent influx	Supported
H21	Economic satisfaction is positively correlated with the propensity for creative talent influx	Supported
H22	Life satisfaction is positively correlated with creative talents' Stay willingness	Supported
H23	Economic satisfaction is positively correlated with creative talents' Stay willingness	Supported
H24	Subjective well-being mediates between Urban amenity and Creative talents agglomeration	Supported
H25	Life satisfaction mediates between Urban amenity and Creative talents agglomeration	Supported

H26	Economic satisfaction mediates between Urban amenity and Creative talents agglomeration	Supported
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## 5. Conclusion

This study focuses on the selected topic of the dissertation and optimally reconstructs the four latent variables as well as the 16 observed variables of Urban amenity based on the research results of scholars such as Florida (2002), Wen (2016), Ma (2018), and Lin (2019), which have been reviewed by a panel of 12 experts. The empirical results, based on a sample of 810 data points, demonstrate a strong fit for the structural dimensions of Urban amenity proposed in this study. In the initial hypotheses (H1-H9) related to Urban amenity and creative talents agglomeration, this study posits a positive correlation, and indeed, these hypotheses are supported by empirical data. Furthermore, the relationships between the four dimensions of Urban amenity and the two dimensions of creative talents agglomeration also exhibit positive correlations. Turning to hypotheses related to Urban amenity and subjective well-being, this study introduces a main hypothesis (H10) and eight sub-hypotheses (H11-H18). While some hypotheses receive empirical support, the findings also reveal differences from previous related studies. Specifically, hypotheses H12, H14, and H18 are not supported by the results. This can be attributed to the fact that the above three dimensions of Urban amenity primarily influence life satisfaction within subjective well-being and have a weaker correlation with economic satisfaction, aligning with the reasonable empirical data. In the initial hypotheses H19-H23, which relate to subjective well-being and creative talent clustering, this study asserts a positive correlation. Additionally, the two dimensions of subjective well-being and the two dimensions of creative talent clustering exhibit positive correlations with each other, supported by empirical data. Notably, subjective well-being plays a mediating role between Urban amenity and creative talents agglomeration, a concept tested in hypotheses H24, H25, and H26. These hypotheses suggest not only a positive correlation between Urban amenity and creative talents agglomeration but also underscore the mediating effect of subjective well-being. Empirical data substantiates all of these hypotheses.

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