



# Correlation Analysis Between Urban Convenience and Tourism Destination Residents' Sense of Place Based on Computer Technology

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**Abstract.** As the social and economic development of our country began to shift from high-speed growth stage to high quality development stage, gradually entering a well-off society in urban residents has not merely content with the spacious room to live, live the basic physiological needs, and the pursuit of comfort, convenience, health, safety, has a good social atmosphere, and so on a higher level of demand. Information technology provides convenience for realizing this demand. The demand of urban residents for high-quality living space is increasingly strong, and cities should consider the factors of attracting and retaining high-quality labor force, and convenience and quality of life factors should be taken into account. Tourism, as the pillar industry of most cities, has a very important impact on urban residents. How the government can retain residents by improving the convenience of tourist destination cities is a key issue to be discussed in the sustainable development of tourism. And the convenience of living city as the external environment of residents living, has a very important influence on local feeling, in this paper, based on the theory of sense of place, through SPSS26.0 of computer technology, convenience of city and tourist destination residents place feeling the relationship between the correlation analysis, and through analyzing the differences of demographic variables, to explore the influence of different demographic variables on sense of place. The study found that urban convenience has a significant positive correlation with residents' sense of place in tourist destinations. Among the demographic variables, only age has an impact on the sense of place, while other demographic variables, such as gender, occupation, education level, length of residence and city of residence, have no significant impact on the sense of place.

**Keywords:** Correlation analysis · Urban convenience · Sense of place

## 1 Introduction

As the social and economic development of our country began to shift from high-speed growth stage to high quality development stage, gradually entering a well-off society in urban residents has not merely content with the spacious room to live, live the basic physiological needs, and the pursuit of comfort, convenience, health, safety, has a good

social atmosphere, and so on a higher level of demand, The demand of urban residents for high-quality living space is increasingly strong, and cities should consider the factors of attracting and retaining high-quality labor force, and convenience and quality of life factors should be taken into account. Tourism, as the pillar industry of most cities, has a very important impact on urban residents. How the government can retain residents by improving the convenience of tourist destination cities is a key issue to be discussed in the sustainable development of tourism.

According to the data of the seventh National population census, the urbanization rate of China's permanent population reached 63.89% in 2020. In the process of urbanization, too many high-quality resources are concentrated in provincial capitals, leading to the "unbalanced and inadequate development" of cities. In this process, the convenience degree of cities at different levels is extremely inconsistent. This results in further "siphon" effect of provincial capital cities. This paper first analyzes the difference of population variables, and then explores the relationship between urban convenience and residents' sense of place, so as to provide references and suggestions for improving residents' sense of place from the perspective of improving urban convenience.

## **2 Research Status**

### **2.1 Research Status of Urban Convenience**

The theory of urban convenience originated from western scholars' discussions on the driving forces of urban development, and empirical research areas were mostly concentrated in the United States. As early as the 1950s, [23] believed that urban convenience was "pleasant living conditions", which was also one of the reasons for the different growth rates of different regions in the United States. [9, 10] believes that urban convenience refers to goods or services that are unique to local areas and cannot be exported and provided to local residents or pedestrians. [18] believes that urban convenience refers to various facilities and environmental conditions unique to a certain place in a city that can make people feel comfortable and pleasant and attract people to live and work around it. [7] argues that urban convenience is to be able to bring happiness of special goods, services, and the environment, the quality of environment quality, the condition of public security, education and health services as an important factor to measure urban convenience can be seen, although there is a difference, to the definition of urban convenience but bring come, living conditions, including the two important factors, Just in the process of urban convenience studies have advanced, change the connotation of the living conditions, living conditions in the connotation of the living conditions of from the beginning to the concrete living and working facilities, environmental conditions, to the products and services, the last to the public security, education, health, and finally even contain important factors such as social interaction, This process can be seen that the connotation and dimension of urban convenience are constantly expanding, which also reflects the improvement of the level of life needs of urban residents from the side. Based on the background of modern life, this paper defines urban convenience, that is, urban convenience is the infrastructure, service or commodity related to education, commerce, medical care, environment, municipal administration, culture

and sports, transportation, social interaction and other elements that can bring happiness and satisfaction to residents.

In addition to defining the concept of urban convenience, most studies focus on the dependent variables after urban convenience. The representative scholars at home and abroad are Rappaport, Wu Wenyu, Xiang Benwu, Yang Xiaobei, Feng Yunting and Du Mingjun. Scholars' studies on post-dependent variables of urban convenience mainly focus on population migration [17], location choice of families and enterprises and quality of life [27], talent location [6], urban population growth [29], Industrial agglomeration [31], residents' quality of life and utility level [7], and urban attractiveness [5]. In addition, the research object is not only the convenience of the whole city, but also the convenience of different locations in a city. The research method is mostly structural equation or simultaneous equation to carry out empirical research on the convenience.

Although the current study of urban convenience research after the dependent variable to a certain extent, but the relatively single, mostly is the study of the effects related to population, but for which the mechanism of action of convenience as well as the city with very little study of the relationship between other variables, the population of residents is mainly researched, the study of urban convenience and the relationship between residents' attitudes basic no. However, residents' attitude, as a key variable affecting their behavior, plays a decisive role in whether they will stay in a city. Therefore, this paper attempts to study the relationship between urban convenience and sense of place based on previous studies and sense of place theory. Furthermore, it provides theoretical and empirical support for local management departments to enhance residents' sense of place and retain talents by improving urban convenience.

## 2.2 Research on the Sense of Place

In the 1970s, Tuan (1976) introduced the concept of sense into the study of place, thus making sense of place an important concept in the research category of human geography. In the early 1980s, [19] further explicitly proposed the concept of "sense of place" and believed that sense of place is generated by the interaction between people and place. At the end of the 1980s, the theory of sense of place was introduced into tourism research, and more in-depth research was gradually carried out on it. The research on sense of place with residents as the research object began in the 1990s. It was Huang Xiang (2006) who really introduced the research on sense of place into China. Although studies on sense of place have been relatively mature at home and abroad, and there are many definitions of sense of place, there is no unified definition of sense of place so far. For example, [18] was the first to simply define sense of place as the product of interaction between people and place. [20] defined the sense of place from the perspective of social construction, believing that the sense of place is socially constructed, dynamic and can be constantly created. [13] believes that the sense of place is a complex psychological, social and structural concept that organizes self-referential cognitive, emotional and behavioral commitments and exists in the process of human deduction of place. [21], a Chinese scholar, believes that the sense of place is a multidimensional concept about people's faith, emotion and behavior loyalty to a specific place. As can be seen from the above definition, the elements of a sense of place include the interaction between

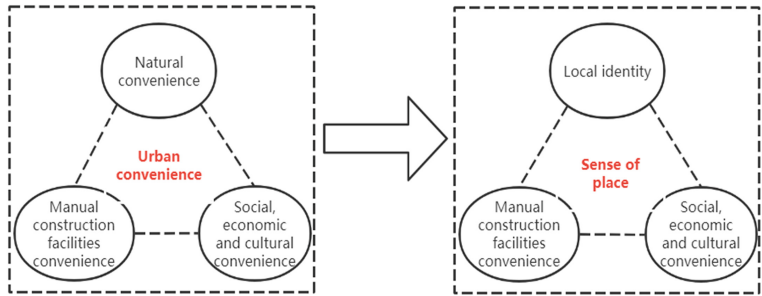
people and places, places or specific places, and people's strong attachment to places or specific places.

Starting from the related research of places are defined, you can see where people feel the influence of various factors on the local, from the right place are found in related research literature comb, at present the study of local sense of antecedent, antecedent mainly include two categories, personal factors and environmental factors including personal factors include residents' level of education [22], residence time (Relph, 1976), perception of public space [12], tourists themselves [24], environmental factors include the use of public space [16], ecological environment, architecture and supporting services, collective memory, interpersonal relationship, and activity types in local development and change [3], characteristic cultural factor, social environment factor, and natural environment factor [28]. It can be seen from the above research status that, Many factors influencing the sense of place, the individual's demographic characteristics, perception of environment, ecological environment, building and supporting services, collective memory, interpersonal relationship, culture and so on are important factors affecting local feeling, but the basic is the study of these influence factors are scattered, no influence on how these variables system place, Based on the shortcomings of previous studies and the theory of urban convenience, this paper includes the above environmental factors into the concept of urban convenience and discusses how various influencing factors systematically affect residents' sense of place in tourist destinations.

### 3 Theoretical Basis and Model Construction

City convenience theory is the study of urban space and the mutual relationship between people and the important theory, many scholars in the study of the design in the process of the corresponding theoretical model, to the design of the specific measures, the number of other scholars mainly through urban infrastructure such as objective data measurement, this paper mainly studies the relationship between the city of convenience and sense of place, Local residents to place is the feeling of cognition, emotion and line, so in this paper, the measure of the city of convenience is mainly measured by residents' perception of city convenience, questionnaire dimensions from the arms, Yang Xiaobei basic dimensions (2017), on the basis of maslow's hierarchy of needs and in the questionnaire about social convenience related item. Therefore, this article could be divided into natural convenience, artificial urban convenience convenience construction facilities, convenience, social economy and culture and social economy and culture in convenience to add social convenience related item, natural convenience including 2 item, artificial convenience to build facilities including seven item, social economic and cultural convenience, including four item, a total of 13 item.

A sense of place is a complex psychological, social, and structural concept that organizes self-referential cognitive, emotional, and behavioral commitments that exist in human deduction of place. This paper analyzes the studies of multiple researchers on the dimensional theory of place sense, and classializes existing dimensional classification models by summarizing them, mainly including the following types: two-dimensional model based on the theories of Tuan(1977) and [26]; A three-dimensional model based on cognition, emotion and behavior; Three-dimensional model based on [13]; Four-dimensional model and multi-dimensional model based on the theory of [21]; In the



**Fig. 1.** Theoretical model diagram. Photo credit: Original

two-dimensional model, scholars mainly divide the sense of place into place identity and place dependence (Tuan, 1977; 1); In the three-dimensional model, scholars mainly divide the sense of place into place identity, place attachment and place dependence [13, 15, 30]. This paper mainly drew lessons from [13] and [15], which divided the sense of place into place identity, place attachment and place dependence, and modified the questionnaire items based on the reality. Among them, local identity includes 3 items, local attachment includes 3 items, and local dependence includes 2 items. The questionnaire has a total of 8 items. The questions in the questionnaire were in the form of 5-point Likert scale, which was very inconsistent with = 1; = 2; Generally, = 3; In line with the = 4; Very much in line with = 5.

According to the current research status of antecedent variables of place sense and the above theoretical models, the theoretical model figure constructed in this paper is as shown in Fig. 1.

Based on the above, this paper mainly proposes a research hypothesis as follows:

H1: Urban convenience is significantly positively correlated with residents' sense of place in tourist destination.

## 4 Study Design

### 4.1 Samples and Research Tools

The main object of this paper is urban residents. The main purpose of this paper is to study the relationship between urban convenience and residents' sense of place in tourist destinations, and to understand the impact of population variables on urban convenience and sense of place. Therefore, this paper takes interpersonal relationship as the channel and conducts a questionnaire survey on the surrounding people by means of radiating electronic questionnaires. A total of 137 questionnaires were collected in this paper, of which 137 were valid, with a recovery rate of 100%. The individual information of specific samples includes gender, age, education level, occupation, years of residence and city of residence.

**Table 1.** Table of reliability analysis results Reliability statistics

Scale	Cronbach's Alpha	Cronbach's Alpha based on standardized terms	Standard deviation
Natural convenience	.779	.789	2
Manual construction facilities convenience	.894	.899	7
Social, economic and cultural convenience	.742	.740	4
Urban convenience scale	.921	.923	13
Sense of Place scale	.956	.956	8
Total table	.956	.958	21

**4.2 Reliability and Validity Analysis**

**4.2.1 The Reliability Analysis**

Before questionnaire recovery and data analysis, we first need to determine whether the questions in the questionnaire can accurately reflect the purpose of the survey and whether the sample data obtained from the survey is reliable, so we need to conduct reliability analysis on the questionnaire. The internal consistency reliability analysis mainly includes split and half reliability, Cronbach Alpha reliability coefficient and KR-20 value of Cudd-Richardson. The Cronbach  $\alpha$  coefficient is used in this paper, which is often used to measure the reliability of questionnaires in reliability analysis. The evaluation criteria of this reliability coefficient are as follows: When Cronbach  $\alpha$  coefficient  $> 0.8$ , the reliability of the questionnaire survey is acceptable and the questionnaire can be used. When Cronbach  $\alpha$  coefficient  $< 0.7$ , it indicates that the questionnaire needs to be used after appropriate revision. When Cronbach  $\alpha$  coefficient  $< 0.5$ , it indicates that the survey results of this questionnaire are very unreliable and cannot be used.

According to Table 1, Cronbach's Alpha of each dimension in the questionnaire was above 0.7, Cronbach's Alpha of urban convenience and Cronbach's Alpha of sense of place reached 0.921 and 0.956 respectively. Cronbach's Alpha of the total amount is 0.956. This indicates that the questionnaire used in this study has high reliability and can be used for further statistical analysis.

**4.2.2 Validity Analysis**

This paper mainly analyzes the structural validity of the questionnaire, which is mainly analyzed by factor analysis. This method can compare the similarities and differences between the actual structure of the scale and the theoretical framework. If the two are consistent and the extracted common factors are sufficiently representative, it means that the questionnaire has sufficient structural reliability.

Before carrying out factor molecules, it is necessary to conduct factor model adaptability analysis on questionnaire data, and KMO test is adopted in this paper. Generally speaking, a KMO above 0.7 is suitable for factor analysis, but below 0.5 is not. The KMO analysis results of the urban convenience questionnaire and the local sense questionnaire show that the KMO value of the urban convenience questionnaire sample data is 0.916, the KMO value of the local sense questionnaire sample data is 0.914, greater than the minimum standard 0.5, and the Bartlett spherical test results show that the significance level of the test is 0.00. It passed the significance level test of 0.05. It can be seen from the test results that the data of the questionnaire survey are very suitable for factor analysis. Through factor analysis we can see that the results of factor analysis was conducted to treat urban convenience questionnaire data after the total variance explained variance contribution rate reached 68.188%, in the sense of place after the factor analysis of questionnaire data of the total variance explained the results the variance contribution rate reached 76.497%, suggesting that both questionnaire can reflect to some extent the questionnaire information, The questionnaire validity was good.

### 4.3 The Data Analysis

#### 4.3.1 Difference Analysis of Demographic Variables

The difference analysis of demographic variables mainly tests whether demographic variables have an impact on dependent variables. Statistics generally analyzes them through one-way ANOVA, which is also known as F test. It is a statistical inference method to infer whether there is a difference in the population mean represented by two or more sample means through the analysis of data variation. Through SPSS26.0, this paper analyzes the impact of five population variables in the questionnaire, namely gender, age, education level, length of residence and city of residence, on the perception of urban convenience and sense of place. The specific results are as shown in Table 2.

The data in the table are the significance after one-way variance test. When the significance of population variable to the dependent variable is greater than 0.05, it indicates that the demographic variable has no significant impact on the dependent variable; when the significance of population variable to the dependent variable is less than 0.05, it indicates that the demographic variable has a significant impact on the dependent variable. As can be seen from the table, the P values of gender, education level, occupation, years of residence and the city of residence on the perception of urban convenience and sense of place are all greater than 0.05, so the above population variables have no significant impact on the perception of urban convenience and sense of place.

**Table 2.** Table of one-way ANOVA results

	Gender	Age	Education	Occupation	Period of resident	Living city
Urban convenience	.941	.033	.064	.927	.735	.825
Sense of place	.606	.075	.576	.475	.436	.346

The P value of age on the perception of urban convenience is less than 0.05, and the P value on the sense of place is greater than 0.05, so age has an effect on the perception of urban convenience, but has no significant effect on the sense of place.

At the same time, in the descriptive statistical analysis, the mean value of urban convenience is 3.6, among which the mean value of natural convenience is 3.6, the mean value of man-made facilities is 3.8, the mean value of social, economic and cultural convenience is 3.4, and the mean value of place sense is 3.9, all of which are greater than the median 3. Therefore, residents in tourist destinations have a high sense of urban convenience and place.

4.3.2 Correlation Analysis

In this paper, the Person correlation coefficient is used to analyze the correlation between variables, which is actually used to measure whether two data sets are on the same line, and it is used to measure the linear relationship between distance variables. Its calculation formula is as follows:

$$r = \frac{N \sum x_i y_i - \sum x_i \sum y_i}{\sqrt{N \sum x_i^2 - (\sum x_i)^2} \sqrt{N \sum y_i^2 - (\sum y_i)^2}}$$

The validity analysis of the questionnaire data found that the data validity and reliability are relatively high. This part will use the questionnaire data to empirically test the hypothesis, and use SPSS26.0 software to conduct correlation analysis on the data of urban convenience and sense of place. The analysis results are as follows:

H1 Empirical verification: urban convenience is significantly positively correlated with residents' sense of place in tourist destinations.

As can be seen from Table 3, the correlation between urban convenience and residents' sense of place in tourist destinations is 0.000, less than the critical value of 0.05, indicating a significant correlation. And the correlation coefficient is 0.764, indicating that there is a significant positive correlation between the two, and the hypothesis is valid.

Table 3. Table of correlation analysis results

		Urban convenience	Sense of place
Urban convenience	Pearson correlation	1	.764**
	Sig.(two tailed)		.000
	Number of cases	137	137
Sense of place	Pearson correlation	.764**	1
	Sig.(two tailed)	.000	
	Number of cases	137	137

\*\* . At the 0.01 level (two tailed), the correlation was significant.



## 5 Research Conclusions and Suggestion

### 5.1 Research Conclusion

From the data analysis results, it can be seen that the urban convenience and residents' sense of place are generally high in the sample area, but the social, economic and cultural convenience of urban convenience is relatively low.

At the same time in the analysis of differences between demographic variables, only age influence on local sense, other demographic variables on local feeling all have no significant effect, it may be that the residents' demand for residence there is a difference of different ages, especially the demand of social economic and cultural convenience there is a difference, make people of different ages to live where there is a difference.

Correlation analysis shows that urban convenience has a significant positive correlation with residents' sense of place in tourist destinations.

### 5.2 Research Suggestion

Enrich recreational activities and improve community services. With the improvement of living conditions, people have a higher demand for leisure life and services. A single recreational activity can no longer meet people's business needs, so the government needs to enrich people's recreational activities through relevant departments or communities. At the same time, the community needs to pay more attention to the living needs of residents, timely meet their needs, improve community services, strengthen information construction, so as to improve social, economic and cultural convenience, and improve residents' sense of place.

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