

The Analysis of Centrality for Stakeholders of Historical and Cultural Blocks -Taking Chengdu as an Example

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Abstract: Deal with historical and cultural blocks construction demands of different stakeholders, which is to make the historical and cultural district of tangible and intangible cultural heritage basis effective protection and sustainable development, to implement the spirit of “ Eighteen Third Plenary Session, it is an integral part to Construction “ new urbanization “. This paper attempts to Chengdu as a specific object of study, Use of social network analysis methods, Draw Network Diagram of stakeholders, Analysis centrality, Calculate centrality of node centrality and relative for the five stakeholders, and concluded that: the tourist is a core subject In the historic district and cultural interests of stakeholders, To achieve protection in the protection of historical and cultural blocks on the basis of sustainable development, we must first consider the interests of stakeholders demands of tourists.

1. Introduction

The proposal of establishing “New Urbanization”, put forward in the Central Urbanization conference, arouses an extensive concern. Historical and cultural blocks play a crucial part in the process of urbanization development, especially in the development of new urbanization. Historical and cultural, as one of cultural relics, shows physical and nonphysical features. How to protect it is crucial for its development. The protection should be based on its own development. The essential part is to concern the interest of different stakeholders, as well as coordinate their conflicts. The paper will apply social network analysis to study centrality degree of stakeholders, and furthermore distinguish the different level and advantages of various stakeholders, in order to get familiar to their interest demands.

2. Research Background

2.1 Definition of Historical and Cultural Blocks

Newly “ Law of People’s Republic of China on the protection of Cultural Relics” defines “historical and cultural blocks” as an area with richly preserved relics, which can relatively completely reflect traditional style and local features in a certain historical period. There are many cultural relics, modern and contemporary historical sites and historic buildings with a certain size.

Recently, the various historical and cultural blocks can be divided into: sites with scenic spots; sites with long history but without scenic spots; sites rebuilt according to historical and cultural quotation.

2.2 Present Situation of Historical and Cultural Blocks

The development of historical and cultural blocks is widely spread. Domestic cities, big or small size, are devoting to building their own historical and cultural blocks as their city symbol. Chengdu, as one of the most charming leisure cities in China, has shown thriving trend of tourist sites, especially the associated district tourism (table 1). The number of tourists and tourism revenue sees an upward trend year after year. These blocks, in conformity with “Law of People’s Republic of China on the protection of Cultural Relics”, include the former three categories of historical and

cultural blocks. Therefore, they can fully represent the feature of national historical and cultural relics, as follows:

Table One: Chengdu Mainly Historical and Cultural Blocks

Name of historical and cultural blocks	Cultural base	Tourism element
Jinli street	Romance of the Three Kingdoms	Shopping, Entertainment, Leisure
Kuan Alley and Zhai Alley	Shaocheng Culture	Shopping, Entertainment, Leisure
Wenshu District	Zen culture, Folk culture	Shopping, Leisure
Yi Pin Tian Xia District	Jin-Sha culture	Catering, Entertainment, Leisure
Qin Tai Road	Han Dynasty culture	Folk entertainment

2.3 The Definition of Stakeholders in Historical and Cultural Blocks and Their Interest Demands

The theory of stakeholders is popular in domestic and overseas study. In the theory, the range of stakeholders should be firstly ensured. Certainty of stakeholders is based on qualitative analysis and partial quantitative analysis, in which the most typical one is “Expert Scoring Method” and “Delphi Method”.

2.3.1 Content of Questionnaire and Methodology

This questionnaire regards governments, enterprises, citizens, communities and tourists as stakeholders.

To the citizens, the questionnaire is applied. The survey is randomly done in 5 blocks, and 100 samples are collected. The purpose is to know the citizens’ awareness and demands to historical and cultural blocks.

To the relative functional departments of the government, the interview is applied. It includes to know their concrete function in the management and development of historical and cultural blocks and etc.

To the enterprises, personal interview is applied. The purpose is to study their function in block building, and operation.

To the communities, personal interview and meeting are applied in order to understand community’s management to the blocks and their proposal for the development.

To the tourists, the questionnaire is also applied. 5 blocks are investigated and 100 samples are collected to make a global understanding of blocks.

2.3.2 Real Situation Reflected from Questionnaire Data

After organization and analysis the investigating data, the result shows as follows:

Table 2 : the Results of Investigation on Stakeholders in Historical and Cultural Blocks

stakeholders	Is it related to core stakeholders?	Survey modes	Collected data	Interest demands
Citizens in blocks	Yes	questionnaire	96 (100 in total)	Improvement of living condition, increase of income, influence to their daily life and etc.
Government	Yes	interview	6 records	Measures to protect cultural relics; city’s global development plans; distribution to social economical benefits
Enterprises	Yes	interview	8 records	Distribution to economic benefits; promotion of enterprise reputation
Communities	Yes	Interview, meeting	1 record respectively	Difficulties of community management, distribution to economic benefits, environment influence
Tourists	No	questionnaire	99(100 in total)	Attraction, accessibility, participatory, experience

From the table above, although all stakeholders focus on the rise of economical benefits, the difference is still large. The government concerns more about the building and development of historical and cultural blocks, and its coordination with the whole development plan. Of course, the protection to the cultural relics is also included. However, the core interest demands of enterprises is economical benefits from investment. The citizen worries more about the negative influence of the development of blocks to their daily life. Surprisingly, the tourist, as the source of the recovery investment and profit, is excluded from the core stakeholders, which should be considered.

3. Methodology

Methodology of stakeholder centrality origins from the 1990s, which is a new relationship analysis method from the west countries. It can clearly reveal the position of member's centrality in a community, which can reflect the different position of members. This method is widely applied in production and research after published, and lots of achievements are gained. At the end of the 1990s, Chinese academics began to introduce, study and employ the method.

It shows the following feature, comparing to other methods.

3.1 Establishment of Relationship Network

First, name the research subjects. They are maybe the individuals of certain community, or small group in a large community. If there are five people, we can name them as A, B, C, D, E.

Next, we can put them into a network, as follows:

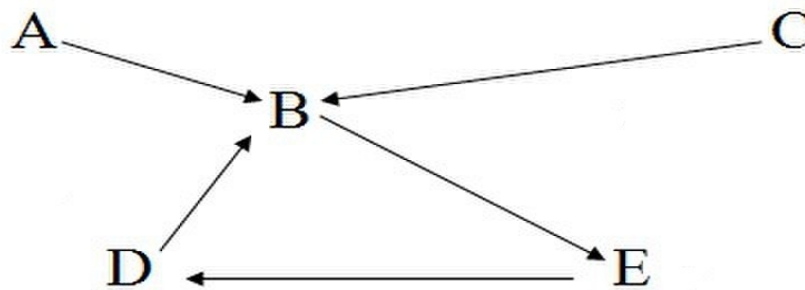


Fig.1 Network

The above map shows five different individuals (A, B, C, D, E). The study will begin from their interview one by one. The main content of the interview is to ask who he or she likes or dislikes in other four members. And then, table 3 can be listed. Score 4 shows the most popular member, and the decrease of the scores shows their favor level. Score 1 shows the least favor.

3.2 Survey Data

The result of the survey is listed as follows:

Table 3 : Data Of Survey on Individuals in Network

	A	B	C	D	E
A		4	1	3	2
B	3		2	1	4
C	2	4		3	1
D	1	4	2		3
E	3	2	1	4	

From the above table, it clearly presents that B is the most popular one in five individuals, for three arrows towards it shows their favor. Meanwhile, we also notice that B owns the highest social status, who will win the most popularity. Analysis of C and A, there's no arrow towards them, which demonstrates they are least favorite members. It also shows their unstable position in social status, and small cases may influence their position. It's certain that the existence of them sometimes can be ignored.

3.3 Dealing with the Data to Show Individual Centrality

If the five points, A, B, C, D, E, represent five stakeholders of historical and cultural blocks, different scores show their mutual dependence. For example: Score 4 shows daily contact, the closest contact. Score 1 shows the lowest contact. The score embodies the dependence and coordination among the five stakeholders. Now we will hypothesize that A represents a citizen, B a tourist, C an entrepreneur, D a community, and E the government. In the network, the closest contact among them must be the tourist. It is in a central position. The entrepreneur, the community, the citizen contact it frequently. Definitely, the dependent degree to it is the highest. The government shows indirect contact with it, but presents great influence to the management of the community and maintenance of historical and cultural blocks.

In general, stakeholder centrality methodology mainly analyzes the relationship of stakeholders by social network method, in order to calculate their individual centrality. This method can be called stakeholder centrality method or social network analysis method, or stakeholder centrality analysis from social network aspect.

4. Results

Apply the above study method to study the case of Chengdu. Study in the real blocks and calculate stakeholders centrality in historical and cultural blocks, and present the network.

4.1 Data Collection and Organization

Five types of questionnaires are designed towards different stakeholders. 5,000 questionnaires are sent out from April, 1 of 2003 to July 31 and distributed in five historical and cultural blocks of Chengdu. Although the number is big, some questionnaires are invalid. As a result, 4257 questionnaires are collected. The design of questionnaires is considered to facilitate interviewees, so six different levels of contact frequency are concerned. In order to prevent a wide guess and reduce the errors, the survey group only chose the first and second level of data in contact frequency, which means the daily and 1-3 a week contact frequency. The final result as follows:

Table 4 : Stakeholder Contact Frequency in Historical and Cultural Blocks

	community	citizen	tourist	enterprise	government	total
community	0	309.5	79	40.5	125	554
citizen	309.5	0	506	310	16.5	1142
tourist	79	506	0	559	2	1146
enterprise	40.5	310	559	0	48.5	958
government	125	16.5	2	48.5	0	192
total	554	1142	1146	958	192	3992

After analysis and filter of the data, the author applies formula of node's centrality degree to calculate.

$$C_D(n_i) = d(n_i) = \sum_i x_{ij} = \sum_j x_{ji} \quad (1)$$

Abide by the formula to calculate node's centrality degree of the five stakeholders:

Centrality degree of absolute figure:

C(community)=554

C(citizen)=1142

C(tourist)=1146

C(enterprise)=958

C(government)=192

In this social network, the scale of network is 3992, namely N=3993. According to the relative centrality formula:

$$C'_D(n_i) = \frac{d(n_i)}{N-1} \quad (2)$$

The relative centrality of the five stakeholders can be worked out: (with four decimal points)

$C'(\text{community})=0.1388$

$C'(\text{citizen})=0.2861$

$C'(\text{tourist})=0.2871$

$C'(\text{enterprise})=0.2399$

$C'(\text{government})=0.0481$

Based on Table 4, a social network is designed. The relationship among the five stakeholders (community, government, citizen, enterprise, and tourist) is clearly demonstrated.

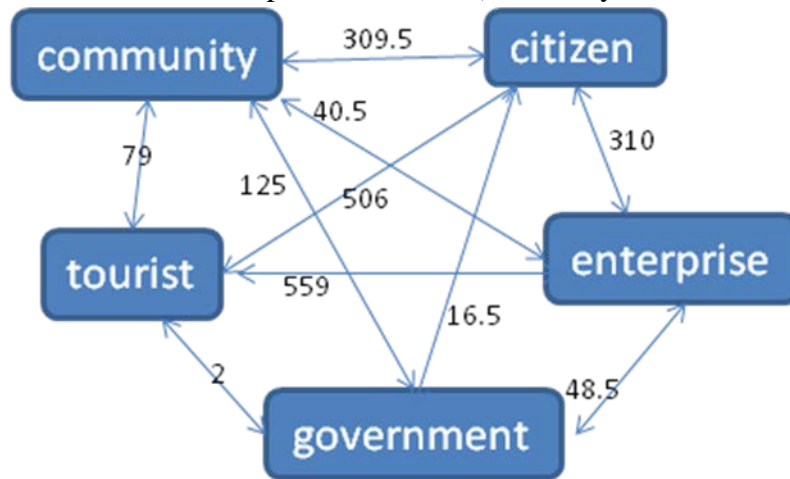


Fig.2 : Social Network of Historical and Cultural Blocks

4.2 Result Analysis of Centrality Degree of Five Stakeholders

According to the data, centrality degrees of five stakeholders are 0.1388(community), 0.2861(citizen), 0.2871(tourist), 0.2399(enterprise), 0.0481(government) respectively. The dominant situation of individual or entity in social network can be reflected in node's centrality degree. The higher degree of the node, the more relative people there will be. And vice versa. Therefore, a conclusion can be reached from the data: tourists, as stakeholders, have the highest node's degree, which illustrates the most people contact with tourists in social network of historical and cultural blocks. The followers are citizens, enterprises, government and community.

Besides, after viewing the social network map and analyzed data, the closest network will be citizen and tourist, enterprise and tourist, enterprise and citizen, community and citizen, these four networks. Their contact degrees all reach 300 and even to above 500. It reveals that their contact is in the main network of historical and cultural blocks. The following contact degree will be over 100 between community and government. The rest is below 100. This presents the contact among different subjects exists, but the network relationship is not prominent and contact frequency is relatively low.

5. Conclusions and Implications

The study on the five stakeholders, from superior to detail, combines theory of centrality and social network to disclose that the crucial subject of historical and cultural blocks is the tourist, which is also a core subject. To realize sustainable development and protection of historical and cultural blocks, the authority should thoroughly consider tourist interest demands. On the base of tourists' interest demands, others' should also not be ignored. To realize the balance of different interest demands, the government needs to launch relative policies and laws to regulate their behavior. For example, control number of tourists, build infrastructure and regulate tourists behavior. In this way, the destruction to cultural relics can be declined to minimum. Meanwhile, in the

development of the blocks, the cultural intention should be representative and attractive, but degree of development ought to be considered. Only by consistent innovation can more tourists be attracted and profit can be realized. Community, compared with government, can directly contact tourists, so they have better operation in policy application. Communities can do some subtle adjustment according to their real situation. So does the citizen. Only on the basis of protection can regulate citizen's behavior and realize sustainable development of blocks. Enterprise management should also abide by the regulation. Although the block can not only bring big profit for the enterprise, but also embody block feature. If the purpose is just for profit, enterprises will bring more severe damage to the blocks than that of tourists and citizens.

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