

Article

Research on The Success Factors of Preserving Historical and Cultural Districts

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Abstract: With the acceleration of urbanization, excessive urbanization and cluster expansion threaten the traditional environment of historical and cultural districts. The preservation of historical and cultural districts has become an important issue for urban development. Through literature review and case analysis, the six success factors are summarized in this article for historical and cultural district preservation: historical and cultural heritage, public participation, government actions, community construction, economic subsidies, and landscape appearance. By using the interpretive structure model to integrate the success factors, it has been concluded that historical and cultural heritage is the most basic factor. The results of this research provide an effective reference to enhance the preservation of historical areas.

Keywords: historical and cultural districts, success factors, interpretive structural model

1. Introduction

The urbanization movement destroys the traditional culture and landscape of the city and weakens its characteristics. As a product of material and spiritual civilization, historical and cultural districts not only have unique historical and cultural characteristics but also have general attributes of a city [1,2]. Historical and cultural districts reflect the regional characteristics of the city and enhance the citizen's sense of belonging, thus need to be well protected and planned. Thus, the protection of historical and cultural blocks has become an urban planning issue. By collating successful cases of historical and cultural district preservation, studying neighborhood culture and neighborhood protection models in different countries under different national backgrounds, exploring the success factors and relevance of neighborhood protection, applying interpretive structural model (ISM) to establish a structural model, and conducting systematic analysis, we explored the preservation model of historical areas.

2. Literature Review

In August 1933, "The Athens Charter" approved by Congrès International d'Architecture Modern (CIAM) mentioned the historic district for the first time [3,4]. In October 1987, "The Washington Charter" approved by the International Council on Monuments and Sites (ICOMOS) [5] reintroduced the concept of "historical districts", which included cities, towns, and historical centers or residential areas, as well as their natural and man-made environments. In addition to their historical role, these areas also embody the traditional urban cultural values [6].

2.1. History of development

In 1933, "The Athens Charter" first proposed the protection of historical buildings and regions, and stated that ancient buildings with historical value should be properly preserved with the theory of preservation initially formed [3]. In 1964, the International charter for the conservation and restoration of monuments and sites, Charter, Venice pointed out the necessity of the preservation of cultural relics, expanded the concept of historical relics, and proposed the integrity of the protection of historical areas [7]. The preservation of historical and cultural districts is a gradual development, which is embodied in material protection from the restoration of single buildings to the protection of the entire area.

2.2. Case study

A large number of historic and cultural district preservation practices have been carried out in various countries, and there are many successful cases of historical and cultural district protection. These cases are important experiences in the preservation of

historical and cultural districts. Although the cases are in different national contexts, commonalities are also found in the successful cases of historical and cultural districts. In this article, three successful cases of historical and cultural district preservation are selected in the United States, Insadong in South Korea, and Pingjiang Road in Suzhou, China, to analyze the success factors of historical and cultural district preservation.

2.2.1. Beacon Hill, USA

Boston built many famous buildings and neighborhoods from 1630 to 1890. Beacon Hill is Boston's first successfully preserved historic district, bringing together various architectural styles and types. Owing to the profound cultural heritage and continuous cultural heritage of Beacon Hill, the historical and cultural district in this area has become a major preservation priority in Boston, and has been valued by the government and society.

2.2.2. Insadong, South Korea

Insadong Cultural Cluster is a small-scale, square-shaped cultural district with many alleys scattered around. It is characterized by a large number of traditional cultural craft shops and various forms of cultural spaces.

2.2.3. Paingjiang Road, Suzhou, China

Pingjiang Road is the most well-preserved historical and cultural area in the ancient Chinese city of Suzhou. By attracting social capital in the traditional cultural relic protection area, the historical and cultural district of Pingjiang Road is effectively protected. Therefore, the effective use of experts and the development of scientific plans are the key factors for the successful preservation of historical and cultural districts.

Based on case studies, the success factors are extracted from successful measures to promote the protection of historical and cultural districts. The success factors for the protection of historical and cultural districts include historical and cultural heritage, public participation, government actions, community construction, economic subsidies (e.g. volume transfer), and landscape appearance, as shown in Table 1.

Table 1. Relationship between district preservation and factors

District Factors	Historical and cultural heritage	Public participation	Government actions	Community construction	Economic subsidies	Landscape appearance
Beacon Hill	√	√	√	√	√	√
Insadong	√	√	√	√	√	√
Pingjiang Street	√	√	√	√	√	√

3. Methods

In this article, we used the literature review method, case study method, and the interpretive structural model (ISM) to study the success factors of historic and cultural district preservation. Based on the factors from the case study, we determined the reliability of the factors through literature review, and then used the ISM method to construct a multi-layered structure to verify the applicability of the factors, and finally obtained conclusions [8–10]. ISM is a complex system analysis method proposed by Warfield. By analyzing the relationship between system elements, a complex large-scale system is decomposed into several regions or levels of system elements [11,12]. ISM is appropriate for analyzing multi-element systems with complex or unhealthy structural relationships, especially complex multi-element social systems [13–16]. Therefore, ISM is applied to study the correlation of success factors, establish a systematic multi-level structure model, and effectively explore different levels of success.

4. Results and Discussions

Historic district preservation is a comprehensive and holistic project, involving many aspects such as society, economy, and environment. In this research, we summarize the success factors of historic and cultural district preservation by reviewing and discussing relevant documents on historic and cultural district preservation. ISM was applied to analyze success factors and to understand the sequence of factors according to the correlation among the factors. The historic district preservation was systematized to promote the preservation of historic districts and historic lots. According to the general implementation steps of the ISM, we analyzed the correlation between the six success factors of historical and cultural district preservation obtained from the above case analysis and literature review and established an ISM model of the success factors of historical and cultural district preservation. The steps of the established ISM model are as follows [17]:

- Step 1 Establish adjacency matrix
- Step 2 Calculate the reachability matrix, as shown in Table 2

Table 2. Reachability matrix of success factors for historical and cultural district preservation

Factors	F_1	F_2	F_3	F_4	F_5	F_6
F_1	1	1	1	1	1	1
F_2	0	1	1	1	1	1
F_3	0	1	1	1	1	1
F_4	0	1	1	1	1	1
F_5	0	1	1	1	1	1
F_6	0	1	1	1	1	1

- Step 3 Construct a multi-level structural model of the success factors of historical and cultural districts

The reachability matrix M was decomposed to obtain reachable set $R(F_i)$ and antecedent set $A(F_i)$. The reachable set is the set of factors that can be directly or indirectly affected by the factor F_i , and the antecedent set is the set of factors that can directly or indirectly affect the factor F_i . Finally, according to $R(F_i)$ and $A(F_i)$, the intersection $U(F_i)$ of the reachable set and the antecedent set was determined. Factors are represented by factor numbers. For example, 1 represents factor F_1 . The relationship between reachable set and antecedent set is shown in Table 3.

Table 3. Relationship between reachablesset and antecedent set

Levels	Factors	Reachable set $R(F_i)$	Antecedent set $A(F_i)$	Intersection $U(F_i)$
Level 1	F_1	1 2 3 4 5 6	1	1
	F_2	2 3 4 5 6	1 2 3 4 5 6	2 3 4 5 6
	F_3	2 3 4 5 6	1 2 3 4 5 6	2 3 4 5 6
	F_4	2 3 4 5 6	1 2 3 4 5 6	2 3 4 5 6
	F_5	2 3 4 5 6	1 2 3 4 5 6	2 3 4 5 6
	F_6	2 3 4 5 6	1 2 3 4 5 6	2 3 4 5 6
Level 2	F_1	1	1	1

By analyzing the equation $R(F_i) \cap A(F_i) = R(F_i)$, that is, $U(F_i) = R(F_i)$, the factor F_i that satisfies the equation is the highest-level factor. This factor is deleted, and then the above steps are repeated to identify the factors at each level up to the last level.

- Step 4 Establish a hierarchy diagram

After two judgments and identifications of the success factors, the hierarchical relationship of the success factors of the historical and cultural district preservation was obtained, as shown in Fig 1.

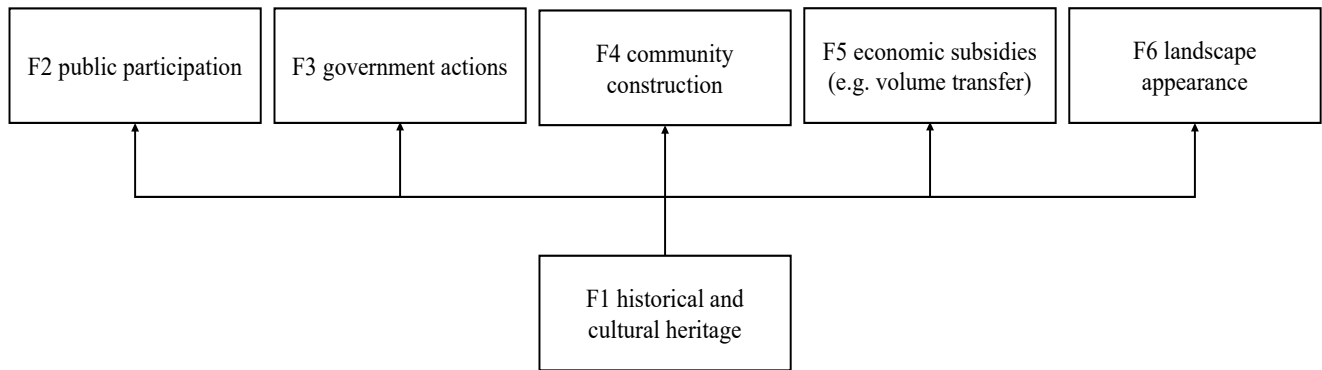


Fig. 1. Multi-level hierarchical structure diagram of the success factors of historical and cultural district preservation.

In the ISM model, the lower the position of a factor, the more fundamental it is, and the greater direct or indirect influence it has on other factors. As seen from the hierarchical structure diagram in Fig. 1, the success factors of historical and cultural district preservation can be divided into two levels. The historical and cultural heritage (F_1) is at the bottom level and is the most fundamental factor among the six success factors. Although the historical and cultural heritage cannot directly contribute to the preservation of historical and cultural districts, it promotes the success of the historical and cultural district preservation through its influence on other factors.

5. Conclusions

The historical and cultural district is an important carrier of culture and history. Its protection and renewal help fully explore the long historical and cultural heritage of the district, protect the regional characteristics of the city, and enhance the sense of belonging of residents. We applied the interpretive structural model to study the correlation of the six success factors to establish a systematic multi-level structure model and effectively explore the success factors at different levels. Therefore, in historical and cultural district preservation, the historical and cultural heritage of the district needs to be properly evaluated and protected to continue its historical context and promote its traditional culture. For the neighborhood with poor historical and cultural heritage must be updated and protected, the role of other factors need to be strengthened. This study result provides urban planners with an important reference for decision-making in historical districts in the city. It contributes to the sustainable development of the city.

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