Renewal Strategy of Public Service Facilities in Large Urban Communities from the Perspective of Public Health

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Abstract: The process of public service facilities allocation in large residential communities is generally simple and static. The dynamic changes and interactions of residents, real estate development enterprises and governments cannot be reflected in the decision-making process, which leads to the inefficient and inefficient allocation of public service facilities in communities, which seriously affects the quality of life of large community residents. This paper establishes a bshp model, focusing on the safety and health performance factors of community public service facilities. These factors include architecture, building services, external environment, operation and maintenance, and management methods. The highest number of projects in 2020 is 233, and that in 2020 is the highest.

1. Introduction

With the acceleration of the pace of life, people are facing all kinds of pressure in their daily life. At the same time, urban public space does not support residents' activities enough, which leads to the continuous decline of residents' public health status.

With the continuous progress of science and technology, many experts have studied the allocation of community public service facilities. For example, some domestic teams have studied the system planning of community public service facilities under the concept of urban community system planning. Under the support of multi-agent system (MAS), the land planning of large residential area is carried out. The adaptive behavior and decision rules of planning decision-makers are analyzed. The process of community public service facilities configuration is studied. From the perspective of time, the large residential area is constructed, and the spatiotemporal decision-making and simulation model of public service facilities configuration of residential area are established. By using the quantitative research method, this paper investigates the residents of the main residential areas, and analyzes the main factors influencing the residents' satisfaction with the living conditions: educational resources, traffic conditions and entertainment facilities. A network monitoring system and method for determining the quality of service on a packet switched network are provided[1]. Some experts have studied the standards of public service facilities setting, and provided an aggregated network management application and system. Applications and systems provide a management platform as a service. It can view and / or manage all managed networks in aggregation safely and efficiently, or view and / or manage any one of them (including managed networks) individually. It can provide continuously available intelligence on managed networks and systems in real time, and overcome integration problems, including the need to resolve mode conflicts and avoid the risk of failure Unnecessary infrastructure and real-time access to all necessary information within applicable memory and bandwidth constraints. From the perspective of public health, this paper studies the ways and elements that affect public health in community street space, and takes the community as an example, puts forward specific renovation methods. Through the application of a local city, this paper puts forward a simple model to solve the problem of multi facility configuration, especially the configuration of emergency service facilities. Through the analysis of the classification, configuration, location, layout and other references of public service facilities, this paper summarizes the rules of tourism town planning [2]. There are also some

experts on the allocation strategy of public service facilities, using a combination of quantitative and qualitative methods, using simple qualitative analysis method to analyze the information of key informants. This paper analyzes the development status of healthy community in China, points out the problems and deficiencies existing in the construction and operation of healthy community, probes into the rise and development of healthy community, sums up the technical points of healthy community in China, and forms the values of healthy community. Through the research and analysis of relevant standards at home and abroad, the index content and scoring rules are compiled, and the weight of each index is converted into score. The calculation process is simplified and the scientific and reasonable results are formed. This paper studies and combs the related concepts and theories of community public service, including life cycle, daily activities travel, community and public service facilities. On the basis of summarizing the relevant theories and research progress at home and abroad, it is found that foreign research on community public service facilities mainly focuses on the fairness of facilities allocation, while domestic research mainly focuses on the allocation standard, optimization layout and evaluation of facilities. Since then, the trend of research is to pay more attention to people-oriented, and to improve the allocation from the perspective of human needs. Based on the relevant norms and indicators of public facilities in urban residential areas, this paper deeply analyzes various factors affecting the allocation of community public service facilities, and summarizes the basic principles of the allocation of public service facilities in urban communities through the detailed analysis of typical cases, and puts forward some optimization suggestions through examples. This paper analyzes the layout of community public service facilities and residents' satisfaction and demand for public service facilities. Through the comparison of the actual project supporting facilities status and standard indicators, this paper studies all kinds of public service supporting facilities in the community. From the perspective of allocation space, this paper analyzes and optimizes the allocation of public service facilities in indemnificatory community. In order to maximize the suitability of public service facilities, maximize the residents' satisfaction with public service facilities, and minimize the allocation cost of public service facilities, this paper constructs a multi-objective micro intelligent group optimization model that can clearly express the allocation space of public service facilities. In the indemnificatory community, this paper empirically analyzes the optimization model and application of public service facilities allocation space in indemnificatory community research strategy [3]. Although the research on the allocation of community public service facilities is fruitful, there are still some deficiencies in the research on the allocation and renewal strategy of community public service facilities in large cities from the perspective of public health.

In order to study the public health perspective of urban large community public service facilities configuration update strategy, through the study of public health and community public service, found that the inertia weight increase, the results show that the public health perspective is conducive to urban large community public service facilities configuration update.

2. Method

2.1 Public Health

(1) Public health

Public health means that the core of urban planning and construction is to protect people's health [4]. Compared with public health, healthy city is more macroscopic. It contains the connotation of public health, but emphasizes the coordinated development of human, environment and society [5]. Green building cannot fully meet people's health needs in environment, aging, facilities, psychology, diet, service and other aspects [6]. Therefore, people pay more and more attention to health building, health building came into being [7].

(2) Community health

With the emergence of healthy city, healthy community is the inevitable requirement of healthy city development, and healthy city is the inevitable result of healthy community development [8]. The implementation of the concept of healthy community, the choice of measures and the

maintenance of performance are inseparable from the guidance, standardization and supervision of the index system of healthy community [9]. Community health not only refers to the physical health of community residents, but also includes mental health [10]. Different from the well-known medical knowledge, the construction of healthy community can play a positive role in the spiritual level, and a good community environment can promote residents to actively participate in physical exercise and other activities [11].

2.2 Community Public Service

(1) Community concept

Community is a large group of social groups or social organizations that gather in a certain field and interact in life [12]. It is the most basic content of social organism and the epitome of macro society. The designer investigated the public activities in the residential area and found that most of the activities in the community are cultural leisure, sports fitness and social activities. In the process of transformation, by increasing the appropriate amount of public activity space to meet the leisure needs of residents, enrich the physical and mental experience of residents. In order to ensure the safety of residents, the community streets are equipped with internet security facilities, and video recognition technology is used to monitor the activities of people inside and outside the community and residents. At the same time, intelligent environmental monitoring facilities are added to the community, which can monitor the environmental quality of the community through the sensors installed in the community. "Today's society generally believes that the community is gradually formed in the process of urban development, living in a certain geographical space, with a common relationship, social mutual assistance and service system.

(2) Allocation standard of community public service facilities

The determination of the allocation standard of community public service facilities is the key of the whole public service facilities planning. It is not only the standard to distinguish the allocation of public service facilities according to the size of population, but also the basis to standardize the allocation standard of community public service facilities according to the characteristics of population and social structure. The standards should be determined on the basis of comprehensive national standards, industry norms, relevant planning results and various service facilities standards of similar case cities. The hierarchical control method strengthens the connection with the superior plan, solves the problems of mutual restriction and total amount control within the unit control, improves the scientificity and operability of the plan, and also adapts to the management requirements of different depths. On the one hand, it is conducive to solving the contradiction between the mandatory law and the uncertainty of the market, avoiding the frequent occurrence of regulatory adjustment, and maintaining the stability of the plan Seriousness and authority.

2.3 Improvement of Inertia Weight

From the perspective of global optimization and local optimization, the nonlinear function is selected to update the inertia weight of the optimization algorithm, and the initial inertia weight of the algorithm is set, as shown in equation (1):

$$\omega = \omega^{k} * \text{rand} * (1 - \frac{k}{\max gen}) \tag{1}$$

At the same time, in order to enable particles to explore new regions with better cognitive ability, so as to quickly find the optimal solution, as shown in equation (2):

$$c_1 = 2 \times [sin(\frac{\pi}{2} \times \frac{k}{\max gen}) \tag{2}$$

In order to avoid the formation of such a single population and improve the search ability of the global optimal solution of particles, the particles must periodically disturb the global optimal position of particles with a certain probability, as shown in equation (3):

$$x_i^d = x_i^d \times (0.5 + \theta) \tag{3}$$

3. Experience

3.1 Extraction of Experimental Objects

In order to fully understand the improvement of public service facilities in residential areas of Lanzhou, We selected two typical residential areas of Railway Station West Road and Dingxi Road for research. In the investigation, the basic situation of the typical residential areas, such as the number of households, population, population age structure, the population of foreign population, the basic situation of community enterprises and institutions, and the allocation of community public service facilities, etc. are investigated in detail. AutoCAD data is imported into ShapeFile data through ArcCatalog. Through manual input, the sixth census data is associated with ShapeFile spatial data in street, and the geographic information data of the census is obtained. In ShapeFile property table, the area of each street is calculated by the function of the software, and the population density of each street is calculated by the calculator function.

3.2 Experimental Analysis

First, review the existing literature on safety and health practices related to low-cost housing and facilities to identify the factors that affect health and safety performance. On the basis of expert judgment and investigation, quantitative data were collected to evaluate the suitability of these factors. Exploratory factor analysis (EFA) was used to test the data and determine the model. Secondly, through the main survey of 308 respondents, we collect quantitative data, and use partial least squares (PLS) tool to test the validity of the research model and hypothesis. Storage manager defines a common area for storing non critical and critical data sets in a storage group. The storage manager also defines a critical reservation to store only critical data sets in the first storage group. Reserve a pre-defined percentage of available storage space for key reserved areas. The predefined percentage of free space is determined by comparing the available storage space in the critical reserved area with the storage space in the storage group. When the extra storage is allocated to the storage group, the distribution module allocates a certain amount of extra storage space to the key reserve area, so as to maintain a predetermined percentage of available storage space in the key reserve area. First, clusters are created from servers in the physical infrastructure. Secondly, a bipartite graph is established to map virtual machines to servers in a specific cluster. Finally, the path between the two virtual machines is calculated. Virtual data center can expand or contract dynamically according to the change of bandwidth.

4. Discussion

4.1 Green Building Evaluation Identification Project

In 2017, the Ministry of housing and urban rural development officially launched the evaluation and appraisal of green buildings and issued a series of normative documents. From the national and local levels, many agencies have been entrusted to carry out the evaluation and appraisal of green buildings, and jointly promote the construction of green buildings, which has formed a good trend of rapid growth of green building appraisal projects in China. As shown in Table 1.

Table 1. Development diagram of the number of color building evaluation identification projects

particular year	Design identification	Operation identification
2017	1737	1873
2018	1983	2143
2019	2063	2293
2020	2173	2324

It can be seen from the above that in 2017, there were 1737 design identification projects and 1873 operation identification projects in China; in 2018, there were 1983 design identification projects and 2143 operation identification projects in China; in 2019, there were 2063 design identification projects and 2293 operation identification projects in China; in 2020, there were 2173

design identification projects and 2324 operation identification projects in China. The results are shown in Figure 1.

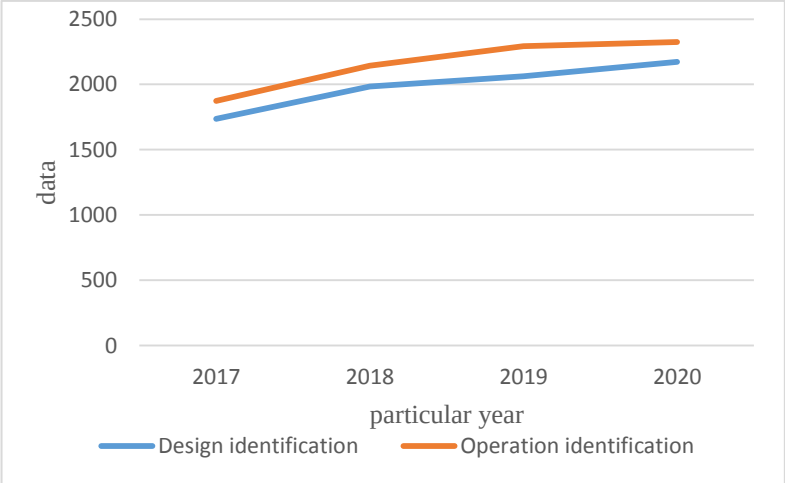

Figure 1. Development diagram of the number of color building evaluation identification projects

It can be seen from the above that the number of design identification projects and operation identification projects in China increases with the increase of years. In 2020, the highest number of design identification projects in China is 2173, and the highest number of operation identification projects is 2324.

4.2 Residents' Satisfaction with Necessary Equipment in Life

The importance of each factor is calculated by expert scoring method, and the fitness weight of public service facilities is determined. The scale of judgment matrix is determined according to the importance of each index, and the judgment matrix is determined according to most principles. According to the number of public service facilities selected by residents, the residents' satisfaction with the necessary facilities for living is shown in Table 2.

Table 2. Residents' satisfaction with the necessary facilities in life

Assessment category	Culture	Sports	education	medical care	business	finance
Adaptive weight	0.13	0.03	0.08	0.11	0.16	0.12

It can be seen from the above that the weight of residents' adaptability to cultural facilities in life is 0.13, the weight of residents' adaptability to sports facilities in life is 0.03, the weight of residents' adaptability to education facilities in life is 0.08, the weight of residents' adaptability to medical facilities in life is 0.11, and the weight of residents' adaptability to commercial facilities in life is 0.03 The weight of adaptability is 0.16, and the weight of residents' adaptability to financial facilities is 0.13. The results are shown in Figure 2.

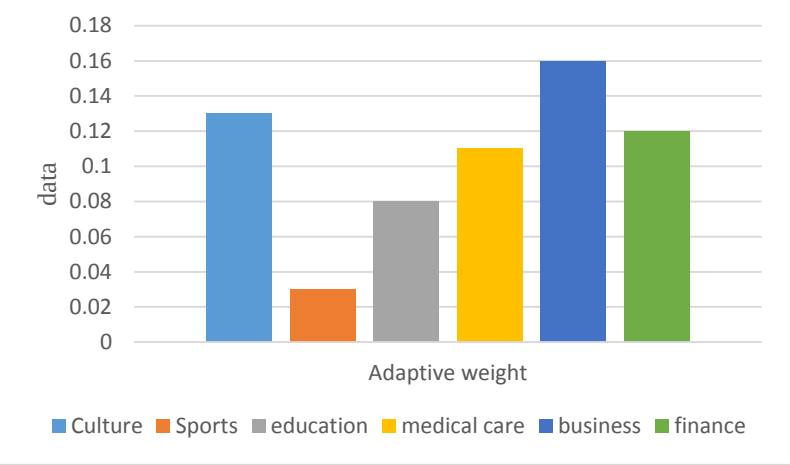

Figure 2. Residents' satisfaction with the necessary facilities in life

It can be seen from the above that the residents' adaptability weight to sports facilities in life is the lowest, which is 0.03, and the residents' adaptability weight to commercial facilities in life is the highest, which is 0.16.

5. Conclusion

The rapid and large-scale construction of indemnificatory community leads to the lack of public service facilities and low efficiency, which directly reduces the quality of life and security effect of residents. Based on the study of residents and their behavior preferences, this paper deeply analyzes the demand characteristics of public service facilities in indemnificatory community. According to the different needs of middle and low-income groups, this paper puts forward the Optimization Countermeasures of allocation content, time and layout. The demand characteristics of social housing community public service facilities are analyzed. Pearson correlation coefficient is used to determine the level of key factors affecting satisfaction. Therefore, it is of great theoretical and practical significance to reveal the demand and supply characteristics of social housing community public service facilities for improving public service allocation and promoting community construction.

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