Innovative development ideas of property management based on smart community construction

Ye Changjian

Chongqing College of Architecture and Technology, Shapingba, Chongqing, 401331, Chongqing, China

Keywords: Smart community, property management, model innovation.

Abstract: With the development of science and technology, the traditional property management service has been difficult to meet the needs of residents for convenience, safety and diversification. The Ministry of Housing and Urban-Rural Development and governments at all levels have vigorously promoted "smart cities" nationwide since the 12th Five-Year Plan. Smart communities are the most basic components of smart cities, and are an important experience practice for residents to feel smart cities outside their work. The construction and operation of smart residential areas challenge traditional property services, and it is particularly important to innovate property services to promote and adapt to the construction of smart residential areas. The construction and operation of smart community is a systematic and complex work, which involves many stakeholders and has a wide range of influences. Therefore, multi-agent coordination has become an important task in the sustainable development of smart community.

1. Introduction

Since the 12th Five-Year Plan for Science and Technology Development of Modern Service Industry issued in 2012 proposed to vigorously develop new consumer service industries such as digital community and digital life, with the help of mobile Internet technology, smart communities and digital communities have developed rapidly in China. As a community service provider, property service enterprises play a key role in the construction of smart community, and are also the beneficiaries of the construction of smart community. Smart community provides a good platform for property service enterprises to carry out property resource management. The construction of smart community is supported by a new generation of information technology. While improving the intelligence within the family that supports users, it also integrates the public services in the construction of smart city, the informationization around the community and within the community to provide users with the ultimate intelligent information life service. Such as smart medical care, smart old-age care, smart government affairs, smart home and so on.

With the coming of the smart age, smart cities and smart communities not only carry people's longing for a better life, but also become the focus of academic circles. At present, when we don't talk about "wisdom", we need to think thoroughly and take systematic care of the background of smart community, deeply understand the essence of smart community, systematically sort out the framework dimensions of smart community, scientifically refine the quality standards of smart community, and predict the development trend of smart community. By analyzing the development trend and characteristics of intelligent property management, and drawing on the successful experience of implementing excellent smart communities, this paper provides reference for the innovative development of property management services in smart communities in the future. Since the concept of smart city was put forward, many countries have joined the upsurge of smart city construction. At present, China has announced three batches of pilot smart cities, totaling 290 cities. Smart community is the basic unit of a smart city. It provides a smart living environment for community residents by using information technologies such as Internet of Things and cloud computing, and has become a key construction content all over the country.

2. Overview of Smart Community and Property Management

2.1. Development of property management

In 1980s, the property services of urban residential quarters were mainly based on the daily management and maintenance of the houses and community supporting equipment, as well as the simple renovation and treatment of the community environment. Their service items, scope and conception were very limited. In 1990s, the scope of property services was no longer limited to the management and repair of houses and the maintenance and management of the environment, but extended to the value-added services such as community security, monitoring and vehicle management, which prompted property management to begin to change to property services. Property management first came into being in response to the needs of the development of the real estate industry, providing basic living services for ordinary commercial housing owners. After decades of development, the service areas have undergone qualitative changes, gradually expanding from the initial commercial housing and residential property, and now include residential, office buildings, businesses, hospitals, schools, governments, squares, parks, parks and other fields; The management mode has changed from a single type of property to a comprehensive property, and from a purely market-oriented property to a socialized property, providing more detailed and comprehensive services.

According to the Property Management Industry Development Report in 2020 issued by china property management institute, by the end of 2020, the annual business income of the national property management industry exceeded 450 billion yuan, the total property management area of 31 provinces, municipalities and autonomous regions was about 16.45 billion square meters, and there were about 2.005 million property service enterprises and 8.214 million employees, which increased by about 13.5%, 48% and 16.2 respectively compared with 2019. Since the 12th Five-Year Plan for Science and Technology Development of Modern Service Industry issued in 2012 proposed to vigorously develop new consumer service industries such as digital community and digital life, with the help of mobile Internet technology, smart communities and digital communities have developed rapidly in China. As a community service provider, property service enterprises play a key role in the construction of smart community, and are also the beneficiaries of the construction of smart community. Smart community provides a good platform for property service enterprises to carry out property resource management. At the same time, many problems have also been exposed. On the one hand, due to lack of experience, there is a phenomenon of emphasizing technology but neglecting management, which leads to the lack of effective management and operation after hardware is equipped; On the other hand, in order to obtain economic benefits, it is common to pay more attention to management than service, and pay too much attention to special services to owners, while ignoring routine services. The existence of these problems shows that the existing property service model can no longer meet the needs of the smart community era. Therefore, under the current background, it is particularly urgent to study the property service innovation, which has important practical significance.

2.2. The connotation of wisdom community

On January 28th, 2009, after Obama took office as President of the United States, he first put forward the concept of "Smart Earth". In 2009, IBM put forward the concept of smart city, that is, it is the intelligence synthesis of all subsystems of city operation. The concept proposed by BIM is a long-term prospect of commercialization, which has both concrete business plans and abstract concept operation. The concept of "smart city" appeared when the wisdom of the earth spread to China.

Smart community is the foundation of smart city development. To put it simply, smart community is the process of improving management and service with the support of network technology, and it is a manifestation of the development of urban informatization. Compared with traditional communities, its advantages lie in: firstly, intelligence permeates people's lives, such as smart home appliances, smart hospitals, smart buildings, digital monitoring, etc. Secondly, realize

the integrated development of services in various fields, such as commerce, education, medical care and finance; Finally, the basic items in property management also use information technology, such as remote meter reading, remote monitoring, access control system, intelligent checkout and so on. With the rapid development of the real estate industry, property management has gradually become an indispensable service mode in people's lives. With the wide application of Internet technology and electronic equipment, property management is constantly being reformed and innovated, and the nature of services has also changed in a humanized, standardized and intelligent way. For example, the dense surveillance cameras in residential areas ensure the residential safety of citizens. Remote meter reading can replace the traditional manual meter reading, and directly transmit the electricity consumption data to the power company. Water and electricity charges can be paid directly by mobile phone, which breaks the limitation of space. The entrance guard system can effectively ensure the personal and property safety of the owner.

3. Analysis on the Problems of Traditional Community Service Mode

With the development of society and the quickening pace of life, the owners put forward higher requirements for property services. For example, with the rise of online shopping, owners have the need to collect express delivery; With the development of third-party payment, people are more familiar with online payment. Traditional cash transactions are time-consuming and laborious, and it will be more convenient to pay living expenses online. The increase of working and recreation time reduces the idle time of people at home, and requires the traditional community service (such as home repair) to be more accurate and reduce the waiting time. However, the traditional community service content is single, which mainly provides basic services. For some value-added services, such as collection and express delivery, business services, etc., due to the limitations of their own resources, capabilities and personnel quality, the service level is low, the projects are few, the refinement is not enough, and high-end services are lacking, resulting in the contradiction between the diversified needs of owners and the single content of property services. The main reason for the low adhesion between community services and community residents is that community services are loose organizations and lack of resource integration.

The significance of the existence of property management enterprises lies in ensuring the normal use of the property and providing various services to create a good, comfortable, convenient and safe living and working environment for the owners. The core product provided by a property enterprise is "service", and the level of service determines its competitive position in the market. At present, China's property enterprises have many problems in their own management, such as unreasonable design of internal organizational structure, inadequate coordination of functions of various departments, failure to formulate a management service system that meets the requirements of the owners according to local conditions, insufficient internal staff training and lack of experience, etc. These problems will affect the service level and quality of property enterprises, and further affect their core competitiveness and market position.

4. Smart community development model

4.1. Innovative development ideas

Intelligent development of property management needs to be adapted to local conditions, and appropriate services should be selected according to enterprise conditions, citizens' needs and market development prospects. Small property departments should take the provision of basic services for owners as their development direction, and use practical network platforms to implement their work contents, such as People's Network and 58 City. Large-scale property departments should launch personalized service content when conditions permit. For example, a property company is large in scale and includes more than 500 residential projects, and jointly launches a service platform with banks to attract various convenience businesses to settle in, which can not only differentiate the risk losses of property companies, but also provide better services for

owners.

Property management should have personalized characteristics, and can achieve innovative development with the support of network technology and electronic information in combination with the actual needs of the masses. At present, the online payment function has been widely used and popularized, with Alipay and WeChat as typical representatives. Property management should also assess the situation and integrate offline and online trading modes to transform and upgrade the service function. In addition, the property department should collect the owner's information and develop a network service platform, which can include local weather, express information, customs, living standards, geographical knowledge, education and teaching, old-age health care, express catering, etc., so as to enhance the diversity and practicality of the intelligent platform. Owners can obtain more service content through one platform, and the information transmission speed is fast and efficient, which creates unlimited development space for them. For example, the property department can deliver express delivery on behalf of the residents to avoid the threat posed by criminals posing as couriers, and can also collect express delivery for the owners who are not at home at work, and inform them of the pickup by SMS or telephone, so as to provide users with convenient services while expanding the profit space.

4.2. Smart community is more humane

Smart community construction has brought positive influence to traditional property. Effectively reduce the cost of property management. The modern technology and equipment adopted by Smart Community not only reduces the risk of management negligence due to insufficient staff in the property, but also brings long-term benefits through one-time investment, which effectively reduces the operating cost. For example, in the property order management, relying on the "community area safety supervision system", including automatic identification systems such as patrol, entrance guard and infrared fortification, and automatic alarm for emergencies, effectively reduce the allocation of security posts, reduce wages and expenses, and improve the effectiveness and safety of order maintenance. Smart community has obvious functional integration. Smart property management actively provides the owners with life information related to clothing, food, housing, transportation, travel, entertainment and purchase by integrating the commercial resources around the community, creating a community lifestyle and guiding consumption. Efficient combination with commercial property not only allows owners to fully enjoy convenient additional value-added services, but also realizes complementary resources and information sharing within the community business circle.

Facing the vigorous development of wireless city and smart communities, the traditional property management services have changed over time, and cannot meet the needs of residents for convenience, safety and diversification. Therefore, intelligent property management came into being, catering to the needs of residents and the times. Combined with the characteristics of smart community described above, the author believes that the characteristics of property management under the new situation are as follows: firstly, the system should be highly integrated, interactive and dynamic, so as to realize the intelligentization of community management and operation; Secondly, the diversity of services is also an important manifestation of strengthening the collaborative management of property services. Finally, high and new technologies, especially high and new information technologies such as Internet of Things, mobile Internet and cloud technology, will be the core technologies of smart home and smart property, and intelligent digitalization and network integration will become the characteristics of the times of property service management.

5. Conclusions

Building smart community is the development trend of automation, intelligence, informationization and individuation. Meeting smart community will inevitably bring about the transformation and upgrading of urban property management. As time goes by, more cities will be integrated into the construction of smart cities, and smart communities will surely become the brightest pearl of smart cities. However, the construction of smart community still has a long way to

go, and the exploration is just the beginning. In addition, the mature application of the core technology of smart community, the Internet of Things, also needs a certain amount of time and hardware foundation. To sum up, the popularization and application of smart community is an inevitable choice for the development of the times, and its future development prospects are limitless. On the basis of building a smart community, property management should constantly improve its work content, innovate its management methods, broaden its service channels, improve its service quality, meet the needs of the owners, achieve stable and long-term development under the fierce market competition, and truly realize serving the people, facilitating the people and benefiting the people.

References

[1] Deng Fujian. research on innovative development ideas of property management based on smart community construction [J]. global market, 2018, 000(011):P.52-52.

[2] Wu Zhengfeng, Wang Feng. Innovative development ideas of property management based on smart community construction [J]. Journal of Anhui University of Technology (Social Science Edition), 2016(1):17-18.

[3] Kong Yandan. Problems in China's property management and innovative development ideas-from the perspective of building a smart community [J]. China's real estate industry (18):1.

[4] Qin Feng. Innovation of Property Management Mode Based on Smart Community [J]. Information Systems Engineering, 2014(6):62-63.

[5] Zhang Jun. Innovative development ideas of property management based on smart community construction [J]. Housing and Real Estate, 2018, 520(34):143.

[6] Nathan Chen. The Role of Property Management Enterprises in Smart Community Construction [J]. Science and Technology Economic Guide, 2020, v.28; No.712(14):184+195.

[7] Liu Hao. Research on Green Smart Community Construction to Promote Transformation and Upgrading of Real Estate Industry [J]. China Real Estate Industry, 2020, 000(010):50.