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Application of Urban Management Pattern Innovation in Smart City Construction

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Abstract: Under the background of smart city construction, urban management has broken through the drawbacks of the traditional management mode, and more and more changes towards the development pattern of multi-agent participation, standardization and normalization. The development of modern science and technology has promoted the development of cities. This urban management model can effectively promote the formation of the current urban management pattern. After digital cities and smart cities, the development of information and communication technology has boosted the current smart city construction. At present, the innovation of urban management mode under the smart city is based on the support of urban public information platform, mobilizing the wide participation of the public through multi department collaborative management, and has a more standardized closed-loop operation process.

1. Introduction

In recent years, with the development of Internet of Things, cloud computing and other information and communication technologies, smart cities are also constantly developing. The development of smart cities puts forward higher requirements for the current urban management model, requiring its innovative development, so as to promote the development of modern new cities. Based on this, this paper mainly analyzes the relationship between the development of smart city and urban management, and deeply discusses how to better innovate the urban management mode under the background of smart city, so as to provide more effective references for the innovation of urban management mode in all parts of China.

2. Analysis on the connotation of smart city and urban management

2.1. Connotation and characteristics of smart city

As far as the development of current technology is concerned, the development of smart city is supported by the new generation of information technology, which is the advanced form of current urban development. In the past, the digital city mainly built a virtual network world on the basis of the present world with the help of the development of science and technology, which is to better let the citizens of the city know the current urban operation state and mode [1]. The development of

smart city is the redevelopment of digital mode. With the help of a more unified and open information platform, some information systems involved in it are connected in series, so as to realize information sharing and intercommunication. This is also convenient for the intelligent operation between various fields within the city. Compared with the first two development modes, the current development of smart cities is in a more advanced state. This sense of superiority is reflected in thorough perception, in-depth integration, information interconnection and innovative application of various departments and organizations in the city.

2.2. Research on the innovation of urban management under the background of smart city

Urban management has a long history in China, which mainly refers to the management of urban public affairs by relevant government departments. In the current administrative process in China, urban management is usually regarded as the related work and task of Urban Management Bureau and City Appearance Administration. These relevant government departments have the right of administrative punishment, compulsory power and so on in the work of urban management. Urban management in a broad sense mainly includes some urban planning, urban construction and comprehensive law enforcement activities in urban management. In order to ensure the healthy operation of urban infrastructure construction, the orderly operation of urban public space, and the effective supply of urban public services, the current government will adopt corresponding measures to carry out corresponding urban management. The innovation of urban management mode under the background of wisdom can make the stakeholders of urban management actively participate in the process of urban planning and management, mobilize the enthusiasm of urban residents for political participation, and make democratic decisions through extensive democratic consultation to ensure the implementation of the corresponding decisions. Through institutionalized design and arrangement, urban management under the smart city can more effectively improve the current government's ability of public governance and dealing with urban problems. The innovation of urban management mode involves not only government departments but also some non-government departments, in order to give full play to the synergy of multi-subject co-governance. The innovation of urban management mode under the background of wisdom emphasizes that the government is not the only power center, and it also needs to cooperate with other social organizations when the government conducts collective affairs related to urban public management. The government can cooperate with some private sectors and some voluntary groups of citizens. Let these organizations and groups also play their own initiative, share the administrative responsibility of the government, and let the relevant government departments have more energy, more efficiency and fairness to effectively supply urban public goods and solve some public problems in the city.

3. Development direction and characteristics of urban management in the context of smart city

3.1. Development direction of urban management

The development of the new generation of information technology has promoted the institutional innovation of the government in the current urban management mode, and also promoted the collaborative management innovation of multi-agents, turning the traditional single management mode into a participatory management mode, which is also an important direction for the innovation and development of the future urban management mode. In recent years, with the continuous development of China's socialist market economy and science and technology, the city's operation mode and development planning are also facing many problems, especially the challenges from the outside, which make the innovation of the city's management mode fall into a certain

stagnation period. These problems mainly include the contradiction between the distribution of urban residents' interests and interest groups, the contradiction between market supply and demand, and the contradiction between the continuous development of economy and the neglect of ecological benefits. To solve these contradictions and problems, the government should pay more attention to them and promote the reform and innovation of relevant systems. The solution of contradictions can not only rely on the government, but also rely on other subjects, such as social organizations. Therefore, the government should implement participatory management in the process of reform and innovation of urban management mode, which is more conducive to the solution of corresponding problems and contradictions. With the continuous development of science and technology, the government can also collect corresponding data and information through platforms such as the Internet, and solve the problem of urban management mode through cross organizational boundary processing methods.

Under the new normal, the problem of urban management mode in China needs the continuous development of smart cities. Under the background of smart cities, the important characteristics of urban management are mainly reflected in thorough perception, deep integration, interconnection and innovative application. The current urban management involves many aspects, such as the provision of basic facilities and public services in the fields of education, medical care, public security, transportation and public utilities. Urban management under the background of wisdom is mainly to play the role of interconnection, intelligence and high efficiency. The transformation and upgrading of the city's wisdom can also better realize the network management and intelligent management of the city management through the introduction of emerging intelligent technologies. With the development of the current society, Internet of Things and big data technology, the development advantages of smart water network have gradually entered the public's field of vision. The innovation of urban management mode under the smart city background should also be reflected in the decision-making level of relevant government departments and organizations. Relevant departments and organizations can help the government to make scientific and democratic decisions by collecting and analyzing information, and finally form the government's command and decision-making. The continuous application and development of current big data is also an important content of current government reform and development. In the process of government reform, we should also actively explore the corresponding data management and data analysis to help relevant departments make better decisions. The innovation of urban management mode under the background of wisdom should also be reflected in its operation mode. With the wide application of new information technology, we can take various effective measures to promote the participation of the current urban government, enterprises and citizens in urban management, so as to realize the cooperative governance of multi-agent mode.

3.2. Main features of urban management model innovation in the context of smart city

The innovation of urban management mode under the background of wisdom needs to embody innovation and foresight, and organize and mobilize the stakeholders involved, so as to provide public management services for citizens more pertinently. The innovation of urban management mode under the city background is also reflected in the extensive participation of the public. This is a new mode innovation, which mainly relies on the creation of public information platforms at the city level, business level and organization level to collect and analyze information. In this way, we can better share resources and information between relevant government departments and other urban management subjects in current urban management [2]. For example, in the current urban management mode, urban emergency management is also one of the important contents, which involves many aspects, such as meteorology, environmental protection, public security, urban

management, water, electricity and other industries. Usually, sudden public events have a great impact and have a strong timeliness. After a sudden public incident, the relevant government departments need to coordinate and operate with relevant stakeholders at the first time. The establishment of the emergency system under the smart city can span many industries and fields of society, and there are also many levels of departments. The interconnection and information sharing between these departments and organizations is mainly to complete the timely transmission of information. Once the resources are mobilized, it can quickly combine multiple departments to achieve organizational coordination and coordinated operation of human resources. The interaction between urban management departments and other public in the smart city background also depends on the advantages of the network platform. Through the network platform, relevant government departments and organizations can fully tap the wisdom of the corresponding public and mobilize the masses to participate in urban management. In this way, a social governance pattern of co-construction and co-governance can be formed within the current urban scope.

4. Innovative development model of urban management in the context of smart city

4.1. Multi department collaborative management pattern of urban management under the background of smart city

Under the background of smart city, the development of new generation information and communication technology can effectively realize the interconnection, collaboration and sharing among different governance bodies in the city. The development of information technology can provide strong technical support for it, and it can realize multi-department collaborative management and intelligent management, thus forming a new development model of urban operation management. The establishment of intelligent public information platform in cities also provides technical support for the collaborative management of management departments in different cities. In the process of smart city development, the effective use of public information platform is the foundation of its urban management model innovation, which mainly includes three parts: urban public information resource data center, urban public information application service platform and urban public information infrastructure. The main advantage of public information platform in smart city management mode is to better realize resource sharing, information sharing and collaborative sharing in business processing among different departments in the city [3]. From the perspective of current urban management, the establishment of public information platform of smart city can realize real-time monitoring of urban geospatial data, data collection of remote sensing influence above the city, timely monitoring of urban car video system, video monitoring of various parts of the city and so on. With the help of the development of these technologies, it is more conducive to the refinement, visualization and intelligence of the current urban management resources, and can carry out the innovation of urban management mode more intelligently and scientifically. At present, the construction and development of smart city is mainly to realize the information interconnection and real-time communication and sharing in the internal business systems of relevant departments of urban management, which provides convenience for the unified command and dispatch of urban management. Under the background of smart city construction, the city management system is developing towards a more open direction, which can effectively realize the information interconnection and intercommunication among various government departments, social public service enterprises and social public service volunteer organizations. This can help the innovation of the current urban management mode, thus forming an efficient urban governance pattern with multi-sectoral cooperation.

4.2. Big data management paradigm of urban management in the context of smart city

Under the background of smart city construction, the important feature of urban management mode innovation is to realize the high-speed connection and real-time connection between different governance subjects supported by emerging information technology. It also provides convenience for the transmission and sharing of information and the convergence of information resources. With the development of big data science and technology, the current data contains a very wide range of values, which is also an important technical support for effective urban governance. Under the background of smart city construction, the construction of public information platform is also to effectively coordinate the information interconnection among various government departments, government and other organizations, government and the public. The innovation of urban management mode under the wisdom of the city also makes the current government have a field of different government functional departments and management functions horizontally. The collection of information resources between different levels of government should adhere to the principle of science and truth. Through in-depth mining and analysis of these data, relevant government departments can help solve some complicated and difficult problems encountered in the process of urban management.

In the era of big data, the construction of smart cities and the innovation of urban management models can all take advantage of the convenience of the era of big data. Big data can help the innovation of urban management mode in smart cities. Its advantages mainly lie in that big data can collect data and mine real data in a more comprehensive and real-time way. When relevant government departments make decisions on urban management, these data can better improve the current decision-making level of smart cities and help maintain the good order of public spaces in smart cities. In the current social public security field, the relevant government departments can collect and analyze information with the help of the development of information technology, especially the development of social media, which can help the staff of relevant government departments to quickly lock and identify criminal suspects when dealing with related public security incidents. The application of this technology can effectively crack down on illegal and criminal acts, reduce public security incidents and maintain social order.

4.3. Public participation mechanism of urban governance in the context of smart city

In the process of innovation and development of the current urban management system, there is still the shadow of the traditional urban management mode. In particular, the government departments under the planned economic system can take care of all social life. This kind of thinking-solidified urban management mode has made China's urban planning, construction and management lack a real public participation mechanism and a certain degree of public participation and social participation for a long time. China's public participation in the process of urban management is often an after-the-fact participation and a passive form of participation. This form of participation is difficult to really play its effective role, and there is still a big gap with the innovative purpose of urban management mode under the background of smart cities. This gap needs to be filled as soon as possible, and a positive urban management mentality needs to be formed in the whole society. Under the background of smart city construction, the innovation of urban management mode should be developed from the perspective of openness and participation, which is also an important development direction and an important feature. The innovation of urban management mode can provide network services and public services for the current public through the development and application of information technologies such as cloud computing and Internet of Things. With the use of social tools such as social media, it can also make it more convenient and fast for the public to participate in urban public management, thus setting off an innovative

movement within the city. This is also the improvement and innovation of public participation mechanism to promote urban governance, and provides a broad space for public participation of the public. Under the background of smart city construction, the urban management mode should be carried out through the public governance mode with extensive participation of the public, which can provide more space and channels for the public's democratic decision-making and democratic management, and at the same time, it can give full play to the public's wisdom to actively explore cities and communities, so as to innovatively explore more effective management modes [4]. With the development of network science and technology, the innovation of urban management mode can also exchange and interact information through the interactive mode of online and offline, which can change the disadvantages of traditional management mode, thus better promoting the construction of smart city and the innovative development of urban management mode.

4.4. Management mechanism of urban governance in the context of smart city

The development of information and communication technology in the smart city background relies on the public information platform of the city, and organically combines different departments, so as to realize the standardized and normalized closed-loop process of urban management. This has promoted the transformation from the traditional assault-style urban management mode and sports-style urban management mode to the normal and scientific urban management mode. The traditional urban management model shows obvious short-term, temporary collective action, and in the process of its action, it also lacks stable and systematic organizational mechanism and resource support. Therefore, its urban management mode can only play a short-term effect, and it is difficult to really achieve long-term and effective development. The traditional sports city management mode quickly concentrates the manpower, material resources and financial resources of many departments in a short period of time. Although this has significant short-term effects, it is difficult to effectively make up for the lack of normal management ability under the construction of smart cities. This kind of management mode is often more effective when dealing with some unexpected public events. However, the innovation of the management mechanism and management mode of urban governance should develop towards more normal management. With the development of information and communication technology, urban management under the background of smart urban construction can provide technical support for the coordinated operation of different links of urban management. Such urban management mode can not only provide more help for the disposal of some temporary emergency problems, but also contribute to the normal management [5]. The development of new generation communication technology provides technical support for the innovation of urban management mode under the construction of smart city. With its support, there have been many gratifying changes in the development of urban management mode. The management of the city is no longer solely dependent on the monopoly of government departments, nor is it the independent decision of the government, but the mutual cooperation, information contribution and cooperation between relevant government departments and social public service enterprises, social public volunteer organizations and the public and other stakeholders involved. The relevant government departments can make scientific decisions, public decisions and unified scheduling. This is an important content of the improvement of current urban governance mechanism, and also an important development direction of urban management mode innovation under the background of smart city construction. It is helpful to promote the formation and development of scientific and reasonable urban governance pattern under the current modernization construction, and to better innovate urban management mode.

5. Conclusions

To sum up, the application and development of the new generation communication technology provide strong technical support for the innovation of urban management mode under the current background of smart city construction. With its support, urban management is developing towards the pattern of multi-departments, wide participation of multi-subjects and scientific and efficient urban governance. The innovation of this urban management mode is of great significance, which can speed up the construction of public information platforms at all levels in the current urban management field, contribute to the institutional innovation and construction of relevant government departments, and contribute to the establishment and dredging of information technology in the current urban planning and construction management process, so as to continuously improve the multi-agent public participation mechanism in the urban management process.

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