ISSN 2616-7433 Vol. 2, Issue 17: 107-116, DOI: 10.25236/FSST.2020.021718

Research on Public Service of Smart City

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ABSTRACT. *with the continuous development and deepening of the theory and practice of smart city, the actual demand for improving the quality of public service is also gradually increasing. Smart city and public service both have internal logic in theory and support each other in practice, forming a relationship of complementary, interwoven, mutual integration and mutual promotion. Smart city public service has the characteristics of public interest as the core, science and technology as the support, and non-profit-oriented. It adheres to the principles of people-oriented, government led, accurate, efficient and convenient, co construction and sharing. Its construction should pay attention to the top-level design, personalized differences, infrastructure improvement and other important issues. The study of smart city public service has important theoretical and practical significance in the construction of urban public service.*

KEYWORDS: *Smart city, Public service, Public interest*

1. Introduction

With the acceleration of human urbanization process, especially in developing countries, it brings severe challenges to the comprehensive urban governance. The original intention of building a city is to make life better, create more wealth, have a green and safe living environment, and enjoy high-quality medical, educational and transportation services However, with the continuous expansion of the city scale and the changing needs of the public, new problems emerge in endlessly, leading to the gradual collapse of the traditional governance mode of single level governance of the city by the government or social public organizations. People are more urgent to seek a new governance model to meet the challenges now and in the future. Therefore, smart city emerges as the times require. In a broad sense, public services cover all aspects of urban governance. Those related to public interests should be included in the scope of public services, such as public transport, public health care, public education, social security, etc. the quality of these public services is directly related to the quality of life of the public. Therefore, smart city and public services are like twin brothers Due to the inherent close relationship, the construction demand of smart city public service has become a new topic in urban development and governance progress.

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2. The Inevitability of the Combination of Smart City and Public Service

As for the connotation of “smart city”, many institutions and experts at home and abroad have defined it. For example, the international business machine company (IBM) defined the smart city as the integration of advanced technology and information means, the integration of advanced technology and information means, the use of network to integrate the whole city into a whole system, through the data information section ;In 2007, the European Commission published the “smart cities rankmg of Europe” “Medium sued” pointed out that smart city takes function application as the core, including economy, environment, public life, social management, etc.; Piro and others believe that smart city should be applied in public management, intelligent transportation, public safety, medical education and other public fields, and elaborated on intelligent transportation navigation, traffic accident assistance, public safety management, intelligent physical examination [2]. Wu Hequan, academician of the Chinese Academy of engineering, believes that smart city is the use of intelligent computing technology to make the composition and services of the city's key infrastructure more intelligent, interconnected and effective, invest in human and social resources and traditional and modern facilities, promote sustainable economic development and high-quality life, and realize the management of natural resources by providing opportunities for participating in Governance [3] ; the connotation of smart city is to realize intelligent and scientific management of environmental resources, public services, social life, public space and other related fields by relying on modern information technology, based on digital information platform, combined with other related innovative technologies Practice process [4] . Based on the above academic views, it can be clearly found that there are three obvious similarities in the theoretical connotation of smart city: (1) public service as the central issue. The central topic is to improve the public service ability and the quality of public life. In theory, smart city has a strong public service attribute, and public service is an important direction for the construction of smart city. (2) Based on science and technology. Advanced information and scientific and technological means are the support and symbol of smart city. (3) The basic way is to integrate and mobilize various resources. One of the important functions of smart city is to integrate resources and information scattered in various fields, which is more efficient and more secure than traditional urban governance.

The representative public service theory facing the future is the new public service theory advocated by Robert B. Denhardt. This theory holds that there are seven principles of new public service: (1) service rather than steering. (2) Public interest is a goal, not a by-product. (3) Think strategically and act democratically. (4) Serving citizens, not customers. (5) The responsibility is not single. (6) Value people, not just productivity. (7) We should transcend the status of entrepreneurs and attach importance to civil rights and public affairs.[5] The core of the theory is that public interests should be the common interests and responsibilities of public managers and citizens, and public services should be widely participated by citizens to achieve common ideal goals through collective consultation and cooperation. The new public service theory has three values: (1) the public interest is the highest value, and the government serves the citizens on the principle of fairness and justice; (2)

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the citizens' extensive participation based on the democratic value; (3) the government is not the controller of the society, but the responsible person for realizing the public interest with other social organizations and citizens. This breaks the original government's single control mode of public service, and strives to construct a diversified, equal, equal and humanized public service mode.

The theoretical connotation of smart city and the connotation of new public service theory have the same point, and the two theories echo each other: smart city takes public service as the central topic, hopes to connect different public subjects through science and technology, integrate resources, solve the problems of public service and improve public service capacity; the new public service theory takes public interest as the highest value, and is strong Adjusting the diversity and equal participation of public service subjects and constructing new public service mode are consistent with the construction direction of smart city. Theoretically, the organic combination of the two is a new direction to realize the new mode of urban governance.

3. Characteristics and Principles of Public Service in Smart City

3.1 Characteristics of Smart City Public Services

(1) With public interest as the core. Publicity is the most basic feature of smart city, and public interest is the core value of smart city. To establish a perfect public service system is the central task of smart city. All work is efficient to realize public interest. The optimal realization of public interest is the starting point and end point of public service in smart city, and the soul of public service in smart city.

(2) Supported by science and technology. Smart city relies on advanced science and technology to connect all kinds of subjects and resources. Based on the Internet of things, smart city uses big data and other information means to analyze the resource information, so as to realize the fast and convenient public service. Without science and technology, the smart city loses its technical conditions, and loses its advanced nature. City of wisdom can not be mentioned.

(3) Non profit oriented. The construction funds of smart city should come from the government's financial allocation, the collection of public organizations, donations from social charities, etc. the construction scheme and operation are all public welfare purposes. The providers and beneficiaries of public services are not the relationship between the store owners and customers of commodity trading. There is no profit-making purpose and operation, but the pursuit of the optimization and maximization of public interests for the public Provide convenient, fast, accurate and effective public products. The non-profit orientation of smart city is the basic guarantee of public service not deviating from public interest.

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3.2 Public Service Principle of City

(1) People oriented principle. The core value of smart city lies in public interest and human interest. It is the essential requirement of public service in smart city to solve the problem of urban life based on people's practical needs. Giffinger, batty, etc. have listed the human centered public service as the top-level design of smart city. [6] Zha Jianguo and Tong Wei believe that people-oriented should be taken to lead the development of smart cities. [7] the principle of people-oriented in the public service of smart city has three dimensions: first, we should fully respect the public's real wishes and needs for public services, and can not be divorced from the actual needs of the public. The construction of smart city should be based on extensive and real public opinion surveys Secondly, the public service of smart city makes the public experience the sense of convenience, happiness and acquisition, pays attention to the public experience and satisfaction, establishes a micro vision, and implements the work to the level of daily life application of every citizen. Thirdly, it pays attention to the cultivation and dependence of public construction strength, especially the elite The innovation and creation of talents. The significance of the people-oriented principle lies in respecting the public opinion, benefiting the people's livelihood and bringing into play the wisdom of the people.

(2) The principle of government leading. The government is the largest organizer of public services, the largest owner of public service financial resources, and the most authoritative authority in the public domain, and accordingly bears the greatest responsibility for the construction of public services. The government can use its unique authority and advantages to mobilize all aspects of public resources and coordinate the interests of all parties, centralize the strength of government officials, think tank experts, organizations, social elites, volunteers and other aspects to plan the construction of smart city public services, coordinate the conflicts among various stakeholders, and form the authoritative leadership of smart city public services A person, an organizer, a coordinator. The construction of smart city is a systematic project, which requires a scientific and reasonable top-level design to ensure the normal operation of all elements, so as to prevent repeated construction and waste of resources and realize the effective integration of resources.[8]If the government does not play a leading role in the public service of smart city, it will lead to the lack of government standard responsibility. It is a disguised government inaction, which directly or indirectly leads to the formation of a bad situation of resource concentration, insufficient financial resources, chaotic construction order and continuous conflicts.

(3) The principle of accuracy, efficiency and convenience. The central task of smart city construction is to combine advanced science and technology with modern public service concept to create advanced governance mode and provide high-quality and convenient services for the public. First of all, public services should be accurate. Precision and accuracy is the quality of public services in smart cities, and it is also the first standard requirement. Due to the inaccurate information, unscientific statistical methods, technology in place and other reasons, the previous services have been distorted. For example, a patient with a heart disease needs to

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undergo a very complicated cardiac surgery The most important thing is to find a hospital that is the most professional and good at, and has low transportation, living and economic costs. If the public service of smart city fails to meet the precise standard, it is likely to provide him with a common, unprofessional hospital far away from his home address and make him pay more economic costs, which may eventually delay his treatment . Another example is that traffic navigation can not accurately navigate, which will lead us to take detours or take the wrong road. Secondly, the public service should be efficient, and the principle of high efficiency requires the construction of smart city to pursue the best efficiency with the lowest cost and solve the most problems with the fastest speed. The phenomenon of high consumption and low efficiency of public services is common, which leads to the inefficiency and waste of public resources, and then can not provide high-quality services for the public. Thirdly, public services should be convenient. The principle of convenience is mainly aimed at the public's understanding and application of smart city public services. The public's knowledge level and operation ability vary greatly. In addition, there are many types of public services, covering all aspects of public daily life. Therefore, the convenience of operation and application is the most direct and simple requirement and experience of the public for smart city public services. The principles of precision, efficiency and convenience are closely linked. The principle of precision requires the allocation of resources and the integration of information to be accurate and in place. The principle of high efficiency requires that the efficiency of resource utilization and service be optimized. The principle of convenience is the final experience implemented in the operation and Application, and is the explicit embodiment of the first two. Therefore, the three principles need to be promoted and constructed together.

(4) The principle of co construction and sharing. Smart city is composed of different subjects. If we divide it from the perspective of public service providers and objects, service providers include government, public organizations, profit-making organizations, and service objects include government, enterprises, citizens and social organizations. This is just a division. In fact, both the providers and objects of public services are intelligent The builders and owners of Huicheng. Smart city not only serves the citizens, but also serves all kinds of subjects in the city. It is not only constructed by the government and public organizations, but also needs the participation of all the public. Chinese scholars have analyzed the current situation of public participation in the construction of China's smart city, which is representative of developing countries. They point out that every citizen should also be an active participant in the construction. However, many citizens have weak willingness to participate and lack the sense of ownership. They think that this is a matter of the government and has nothing to do with individuals.[9] Sometimes the government will play an all-in-one role, not communicating with the public, neglecting to establish and improve the information communication mechanism and public participation mechanism with the public, and other subjects can not accurately find their own role and the most important role in the construction of smart city, As a result, a good mechanism of information symmetry, smooth communication, extensive participation and joint construction can not be formed among various subjects, resulting in a series of adverse consequences such as waste

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of resources, low efficiency and low public satisfaction. The principle of co construction and sharing requires breaking the traditional thinking of the separation of providers and beneficiaries, changing the government's self righteous thinking and the public's indifferent attitude, cultivating the government's scientific leading sense of responsibility and the public's active participation in the sense of ownership, and establishing a multi-directional information communication feedback mechanism to accommodate multiple stakeholders, so as to achieve the goal of joint construction and common enjoyment.

4. Several Problems Needing Attention in the Construction of Public Service in Smart City

4.1 The Public Service Construction of Smart City Needs Top-Level Design and Focuses on Foresight

The top-level design is an authoritative scheme for overall control of the overall architecture, centralizing resources, coordinating all parties, and comprehensively considering and planning various positive and negative factors affecting the overall architecture construction. Smart city public service is a huge and complex project, which has the characteristics of systematicness, integrity and advancement. It can not only guarantee the coverage of all aspects of public life of all citizens, but also leave room for improvement and planning path for future public services. Without overall planning, the top-level design cannot be completed. The construction of smart city is a systematic project, which requires a scientific and reasonable top-level design to ensure the normal operation of all elements, so as to prevent repeated construction and waste of resources and realize the effective integration of resources.[10]

According to the research of experts from various countries, some problems in the construction of smart city public services are rooted in the lack of top-level design, such as: vague value concept, which leads to heavy technology and light of humanities; unclear construction scheme, leading to repeated construction and serious waste of resources; conflict of demands of various stakeholders and failure of coordination lead to slow construction progress and damage of some public interests. The top-level design mainly plays three positive roles: first of all, it is necessary to clarify the value concept of public interest as the core and people-oriented, and to gather public consensus, so that the construction of smart city public service always follows the correct direction of value concept, instead of overemphasizing the important position of advanced science and technology in the construction process, and ignoring the humanistic care of public service, which is not easy to be ignored He is influenced by his values. Secondly, clarify the responsibilities and interests of the government, public organizations, enterprises, the public and other subjects, effectively avoid the phenomenon of poor coordination due to conflict of conflicting interests; emphasize the leading position of government authority and the main position of public participation, further clarify the responsibility boundary of the government and society, effectively avoid the

ISSN 2616-7433 Vol. 2, Issue 17: 107-116, DOI: 10.25236/FSST.2020.021718

problems of government offside, disorderly act and inaction, and can also be widely mobilized Public participation and contribution. Thirdly, the value of smart city is not only reflected in the ability to solve existing or historical problems, but also in the ability to solve future problems, to have forward-looking planning for future construction, to avoid future risks, and to provide sustainable development in the future Wider space.

4.2 Public Service Construction of Smart City Needs to Embody Individuality

The top-level design is not a specific construction drawing that can be used all over the world, but a solution that adapts to the whole world. It is impossible for all countries and cities in the world to have a general construction plan, because the actual situation of each country and city is different, and there are great differences in cultural traditions, customs and lifestyles of different countries and nations, and public services Therefore, the individualization and differentiation are particularly important. The public service system of the United States is a kind of public service system which takes both fairness and efficiency into consideration. It is an institutional model that combines government's public subsidy with work contribution and the use of market mechanism. Its main feature is to establish a service system with individual autonomy as the main factor, government subsidies and business as auxiliary under the premise of government regulating distribution.[11] the European Union has adopted such promotion strategies as establishing and supporting policy network, promoting quality principles and standards, bridging regional gap by using finance and projects, optimizing administrative process, and attaching importance to information services, which has effectively supported the process of EU public service integration in practice.[12]Developed countries and developed cities have basically constructed a complete framework of public services and achieved a high level of service quality. However, the differences between developing countries and less developed cities are more obvious. The objective reasons for the individualization of public services in smart cities are different development stages, different ecological environments and diversified public demands.

The construction of individuation is mainly reflected in two aspects: first, the individual differences between countries and cities in different development stages. The service items of developed countries and cities are generally far more than those of less developed countries and cities, and the quality standards of public services are high and strict. Therefore, such personalized construction is reflected in the construction degree and content of public services in smart cities. Second, the individual differences between countries and cities in the same development stage. Cities at the same level of development generally have the same economic and technical conditions. However, due to cultural differences such as historical habits and ways of thinking, the service differences reflected are not the same. Some cities pay attention to social security, some pay attention to the improvement of ecological environment, and some pay attention to the improvement of ecological environment Pay attention to the promotion of culture and Education Therefore, such

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personalized construction is reflected in the diversified practical needs of the public in different cities.

4.3 The Public Service Construction of Smart City Needs to Pay Attention to the Improvement of Infrastructure

Smart city is not a castle in the air, it needs to be built on the basis of sound infrastructure. The improvement and development of infrastructure is directly related to the construction quality and level of smart city public services, and even plays a decisive role. The public service construction of smart city in developed countries is fast and high-quality, which is closely related to its more developed and perfect infrastructure construction. Chinese scholars have pointed out that optimizing bus lines, improving branch systems, building subway parking lots, controlling surrounding polluting enterprises, supervising key links of food, and reasonably distributing primary and secondary schools are all problems that residents have reflected more. These infrastructure construction is the premise of realizing the wisdom of the city. Otherwise, no matter how high-end information technology can really improve the operation efficiency of the city.[13]

The infrastructure construction of smart city mainly faces three major problems: first, the construction of hardware infrastructure and information infrastructure is not balanced, and the construction of information service platform is not matched with hardware infrastructure, which leads to the construction of information service platform lagging behind or ahead of schedule and unable to provide accurate and effective public services to the public. Secondly, the main body of infrastructure construction investment is scattered, the investment direction of each investment subject is not clear, the efficiency of capital investment and utilization is low, the fund management is chaotic, and the responsibility boundary of public finance and private investment is not clear, which can not realize the effective collection and standardized utilization of funds. Third, infrastructure operation and management is extensive, sustainable development is not strong, excessive consumption of resource costs, resulting in insufficient stamina of public service construction.

To improve the infrastructure construction, we should focus on the construction of public services in smart city. Firstly, we should balance the development speed and degree of hardware infrastructure and information infrastructure according to the current urban infrastructure situation and future planning of smart city, maintain the overall construction direction consistent, and achieve the overall matching of hardware infrastructure and information infrastructure. Secondly, we should make clear the responsibility boundary of each investor, especially the guidance and regulation of social capital, and clarify the scope and direction of public finance and social capital investment, so as to ensure the stable and sufficient source of construction funds and efficient utilization. Thirdly, we should innovate the operation and management mode of infrastructure, strive towards the fine and sustainable direction, and realize the intensive operation and management of infrastructure, so as to reduce the operation cost for the public service

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construction of smart city and provide support for the long-term development of smart city.

5. Conclusion

The organic combination of smart city and public service is the inevitable requirement for the future oriented and common development of smart city and public service, an advanced form of urban governance and public service, and a new mode of urban development. The public service of smart city focuses on the optimization of public interests, adheres to the basic principles of people-oriented, co construction and sharing, mobilizes the construction talents and enthusiasm of various subjects of the city, realizes the public's extensive participation to the greatest extent, meets the actual needs of the public to improve public services, and provides a good foundation and alternative path for the future development and construction of the city. We should continue to deepen its theoretical research and practical investment to make the city more beautiful and benefit mankind!

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