Risk Control and Prevention During the Smart Cities' Development

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ABSTRACT: The smart city is an advanced form of digital city following the urban development and is the focal point for the urban governance model innovation as well as a breakthrough lifestyle change. With the deepening understanding, urban construction has made great progress and the smart city evaluation system gradually improved. However, due to the influence of knowledge, institutional, technological and other factors, there is a distortion understanding for the urban construction. Here come the urban landscapes in thousands of cities present the same style and the weak urban development issues such as innovation. To achieve our smart city sustained and healthy development, earnestly top-level design and planning take the important role, which will promote smart city development for differentiation characteristics, accelerate technological innovation and industrial development of wisdom and push the effective integration.
KEYWORD: Smart City; Risk; Risk Management; Prevention

1 INTRODUCTION

Since IBM raised the concept of "smart city", it has been attracting the attention of the world. According to World Bank's estimation, if there is a city with more than one million people turn into smart city during the urban development, it will be able to increase the dividend 2. 5-fold to 3-fold with the same investment comparing with it turn before, which means "smart city" can contribute to the achievement of sustainable development goals. The Evolution of the city, the smart city is an advanced form of urban development, a new form of information technology under the background of urban development. From the urban development process, the smart city is the highest level of urban development. From the point of view of urban development concept, Smart City is the city governance model innovation focal point, is the starting point for change in lifestyle. In this paper, the wisdom of our city to promote the sort of case, based on the analysis of errors and the crux of the wisdom of the current urban development occurs, and proposed countermeasures.

2 SMART CITY'S DEVELOPMENT STATUS

The communist party's 18th meeting clearly put forward the realization of the integration of information technology development, promoting various fields, a full range of information technology, which urgently requires China to accelerate the development of information technology, promoting smart city development. The world's developed countries have the wisdom of the city continues to accelerate the pace of development, China is also actively promoting the wisdom of urban development, currently has more than 300 cities have proposed the development of smart city, smart city formed a good momentum of development.

2.1 *Our smart city development contest in full swing*

Since 2012, China's Housing and Urban Development Department announced the 90 pilot cities since the first national intelligence project. In the year 2013 has increased by 103 countries smart city projects. Till now, the state of smart city projects reached 193 while the total number of smart city development reached 392, which including the Bohai Rim, Yangtze River Delta and Pearl River. Delta region is the wisdom of a more active region while Beijing, Shanghai, Guangzhou, Shenzhen, Ningbo, Nanjing, Shenyang, Wuxi and other smart city develop very fast and turn into the first demonstration cities. Smart cities have entered the new stage of planning and development, moreover, the urban development competition in full swing.

2.2 *China's smart city development has achieved primary effectiveness*

There has been initially present the contribution to China's economy and social development from the wisdom of China's urban development. First of all, the intelligence industry's level has been developed into the same level with the world. With the smart cities' development technical industry develops fast, for example the sensor, RFID, network communications, intelligent computing and information processing has made many breakthroughs. According to the National Patent Office statistics show that since 2005, the number of patent applications grow rapidly, the number had far surpassed the United States as the largest national patent applications country.

For the definition of industry technical standards, especially some files can take the role as the world leader, such as sensor network standardization process, which as the same standard as the level of United States, Britain, Germany and others. Secondly, the digital economy develops rapidly. Especially digital economy sector benefits from the fast urban development. Huge investment in urban infrastructure has promoted the rapid development of China's broadband speed, especially since the "broadband China" strategy in 2013, there are 33.2% increase compare with the fourth quarter of 2012, which achieved a substantial leap forward. Thirdly, people's living standard has improved. With the continuous improvement of infrastructure, the digital economy also contributed to the growth of digital consumption. So in year 2013 the scale of China's annual consumption on information reaches 2 trillion rmb, actually there is an increase of 25%.

2.3 *Smart city's evaluation system improved gradually in China*

Rational evaluation system is a barometer of smart city's development, which can provide scientific guidance and supervision. Rapid develop of smart cities in China just accelerate the development of related research and evaluation system. Also the governors at all levels always concern the system's development. Since the proposed smart city, provincial and municipal relevant departments to actively promote the development of smart city index system, such as Shanghai's evaluation system version 2 with the target of smart city's development. To accelerate the development of smart city, the first national standards to guide and evaluate the smart city will be released soon in China, with its name of "smart city-based evaluation model and evaluation system". Secondly, research institutions also actively promote sound smart city indicators. In 2013, Chinese Academy of Social Sciences Information Research Center and Center for Urban Studies jointly issued the "2013 China Urban Development Assessment Level of Wisdom". Here are 60 cities involving into the assessment and the Top 10 cities are Wuxi, Ningbo, Shanghai, Pudong of Shanghai, Hangzhou, Beijing, Shenzhen, Guangzhou, Foshan and Xiamen. All of them are the eastern coastal cities, which show the wisdom of the eastern coastal areas for urban development and can be the reference for government to make decisions.

3 RISKS AND OBSTRUCTION EMERGE DURING THE SMART CITIES' DEVELOPMENT

Smart cities aims at through the modern science and technology to integrate the information resources, to manipulate business application systems then contribute to the efficient, ecological and civilized new type of city. However, in reality the process of development meets barriers due to awareness, institutional, technological and other factors.

3.1 *"Focus on projects while not on planning" So called smart cities appear a lot*

Smart cities' fast development is an indisputable fact. Since 2012, the concept of smart city was proposed the first time and within less than two years, cooperation agreement reached China's between the three major carriers and more than 300 cities. Nearly 400 cities target to develop smart city while the total investment of nearly 500 billion RMB. As a result, the high-speed growth will inevitably bring the overheating phenomenon to society. First of all, there is lack of the national programmatic planning.

From the national's perspective, China has not yet introduced on the wisdom of urban development planning while the existing planning is mainly on networking, cloud computing and other intellectual industries do programmatic guidance, lack of wisdom macro guidance on urban development. Secondly, local governments lack of overall planning. Local governments pay more attention to key projects and short-term effects but rarely learn from foreign countries. Thirdly, the government performance are judged by the projects during the urban development sine long time ago. Over the years, governments at all levels emphasis on enormous achievements through urban development, which resulting harmness that regardless of whether there are mature conditions for smart cities but still keep the concept.

3.2 *"Focus on concept while ignore cities' characteristics" which produce all cities the same images*

There is less than 6 years since the first time the concept of "smart city" was proposed by IBM company in 2008, Actually smart city just stay at the first stage for development, which in terms of the development is still in the exploratory stage. So from the world wield still lacks maturity model for reference. Therefore, governments just follow the traditional urban development way. Eventually here are urban homogenization and serious waste of resources as well as same pattern. By the traditional path-dependent effects of urban development, governors tend to pay attention to the concept of the wisdom of the city, without careful workmanship of its connotation which product the transformation of the old town rebuilt and the transformation urban infrastructure.

Thus ignoring the management of urban wisdom, intelligence and other aspects of people's livelihood, with little difference between the traditional urban development, urban development repeat serious, serious waste of resources. Second, the convergence of smart city development planning is serious. At present, our wisdom in urban development planning mostly related to information infrastructure development, network interconnection pilot, cloud computing center, information industry, intelligent transportation, smart healthcare, smart government and other issues, planning similar content, while ignoring the urban infrastructure, urban functions urban cultural considerations, can not form an effective complementary relationship between the city and thus appear smart city "thousands of city side" phenomenon

3.3 *"Just copy while no creation"*

Smart city's development will be supported by transportation, date base, e-cloud and other elements. During this stage, most of the key elements' advanced technology are belong to advanced countries. According to the statistics, nearly 80%'s information is supplied by foreign countries to China. Therefore, China is copying from the mature modes with the lack of self independent creation ability. Due to two reasons, one is enterprise's nature for the interests and the other one is short of investment from governments. It is easier to reap interests to do the copy with short term, no risk and big return while the creation will product the long term, high risk and even no return. Moreover, most the companies which choose to do the technology industry are small size ones. They are short of investment to the advanced technology's creation and governments choose to be blind to this part.

4 RISK PREVENTION AND CONTROL FOR SMART CITIES

In response to these barriers appear during the smart cities' development, China should strive to do the top-level design and planning guidance to promote development for different levels of smart city, to highlight the characteristics of urban development, to relay on market oriented mode doing the infrastructure and strive to achieve our smart city sustained and healthy development.

4.1 *Pay attention to top-level planning and arrange overall guidance*

Most important task for promotion of sustainable and healthy smart city's development is the top level's overall deployment. There are different levels of government systems and will involves a number of administrative departments to do the planning for smart cities. Till now there lacks a unified and consistent development department in charge of coordinate the top-level design.

Therefore, a unified authority should be established to coordinate all talents, physical the incident management and the whole system. Secondly, To speed up the formation built of the top design come first. In order to meet the need of fast development and the trend of information technology, to promote a comprehensive urban development and to enhance the people's living standard, restructure the top level planning become the main task to avoid duplication of development and waste of resources. Thirdly is to improve each smart city's planning. Local governments should pay attention to its own comparative advantages. Based on top planning and combine each city's characteristics to propose one proper local planning to avoid homogenization. Fourth, To accelerate the construction of smart citis' performance evaluation system. Focus on people's livelihood, urban development as well as the concern of infrastructure, industry, intelligence service and so on. Make the national standards of performance evaluation system to evaluate governments' decision-making and be the reference to governments in the future.

4.2 *Emphasis on specialized and differentiated planning to promote smart city's characteristics*

Difference-orientation competition is the continuous dynamic key for smart city's development. First of all, the combination of smart city's development and current problems' solution is the key element. Learning from foreign countries' experience for smart cities, such as Amsterdam of the Netherlands, when face less resource in limit land, so raised the city's positioning as environmental protection to promote sustainable urban development; Also the

Stockholm of Sweden, which is a world famous touring city with tight traffic system, proposed urban intelligence transportation to solve the traffic congestion problems, and so on. Secondly, To promote smart city development and combine each city's comparative advantages and characteristics, put up an effective solution to urban development to avoid the phenomenon of "Thousands of city with same image". Thirdly, Emphasis on the cooperation between cities for balanced development. Based on local's advantages to strike balance during surrounding cities' development and make clear of city positioning, which can contribute to the smart city's key development.

4.3 *Relay on technology innovation to sustainably promote smart city's development*

Innovation is the main driving force to promote smart city's sustainable development, which will rely on IT innovation to promote the technological innovation and smart city development. One is to optimize the environment for technology innovation. To further improve and optimize the development, testing, production, sales and service to form the public service platform and efforts to improve the mechanism for collaborative innovation, technological innovation and hard environment to optimize the wisdom of urban development; Also to be more proactive for the guide and encourage the whole society in relying on scientific and technological progress. Constantly optimize the environment of technological innovation for smart city development. Secondly, Accelerate the development of intelligence technology, intellectual property rights of technology is urgently needed to solve the problem of China's rely on foreign countries' advanced technology. Thirdly, talents' system needed to be built to provide intellectual support for smart city's development. Moreover, training a group of professional technical talents is really necessary according to the key elements for smart city's development.

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