The Development Path of China's Bicycle Sharing from Collaborative Governance Perspective

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ABSTRACT

In Recent years, bicycle sharing has become the mission of solving the problem of "the last kilometer" as one of the most representative achievements of "Internet +". Bicycle sharing has been favored by the public with its characteristics of stop-and-go, economic and environmental protection. But over time, it also brings a series of management problems, which brings a new challenge to urban governance in the Internet era. Through questionnaire, interviews, participatory observation and literature research, this article analyzes the governance dilemma of the shared bicycle, and puts forward some suggestions from the perspective of collaborative governance.¹

KEYWORDS

Bicycle sharing; government regulation; collaborative governance.

INTRODUCTION

In 2007, China introduced the public bicycle system, which has been piloted in Beijing, Hangzhou and Wuhan. In 2008, Hangzhou adopted the mode of "government guidance and enterprise operation", and first constructed the public bicycle (free bicycle) system in China to solve the problem of "last kilometer" of public transportation [1], but the effect was not satisfactory. On the one hand, the

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inconvenience of card handling, fixed pile parking and other characteristics cannot meet the needs of the public to travel; On the other hand, most of the public bicycles are funded by the government and run by enterprises. The government must pay a large amount of financial expenses every year to maintain its operation, which is less sustainable.

Bicycle sharing is operated by enterprises independently and efficiently, which can respond to the public demand timely. But with the popularity of bicycle sharing, there have been problems such as free parking, intentionally damaged and private occupation. Bicycle sharing encountered conflicts of market order and the government order. These problems have posed new challenges to laws and regulations, government functions, enterprise management and citizen quality. How to coordinate the relationship among the government, the market and the public and achieving a win-win situation has become an important issue facing the governance of bicycle sharing.

RESEARCH METHOD

In this paper, questionnaire survey and interview survey are the main methods, supplemented by literature review and participatory observation. By investigating the teachers and students of a university in Beijing, we understand the development of Shared bicycle and user’s requirements. By studying the governance of bicycle sharing in some cities and combining the science of public management, the paper puts forward the measures of coordinated governance by the government, enterprises and citizens, deepening the cooperation among stakeholders, and guiding the healthy and sustainable development of bicycle sharing.

THE DILEMMA OF BICYCLE SHARING GOVERNANCE

The bicycle sharing is convenient, flexible and low-carbon, which is not only favored by consumers, but also consistent with the concept of green travel advocated by the government. By July 2017, there are nearly 70 Internet bike rental enterprises in China, with more than 16 million vehicles in total, over 130 million registered users and over 1.5 billion people served.[2] With the popularity of bicycle sharing, there have been problems such as free parking, intentionally damaged and private occupation. Whether in the city or on campus, the development of sharing bicycle needs to be regulated.

A. The "Tragedy of the Commons "Caused by the Separation of Ownership and Right to Use

Bicycle sharing has low exclusivity and a certain degree of competitiveness, similar to the attributes of public pond resources products. Professor Ostrom said: "public pond resources are public resources where people use the entire resource system together but share the resource units separately. In such a resource
environment, rational individuals may cause resource use congestion or resource degradation." Users get the right to use the bike within a period of time by paying a small fee, but there is no permanent property right, so they will not take the initiative to avoid damage to the bike. According to the property right theory, only when the property right is clearly defined, when the property right subject makes an action decision, will he seriously consider the future benefits and costs, so as to select the behavior that can maximize the proliferation of his property value.[3]

B. The Moral Hazard and the Unequal Distribution of Resources Caused by Information Asymmetry

Some users do not cherish the shared bicycles because of the lack of supervision. As a result, the QR code is defaced, the bicycles are thrown into trees or rivers, the private locks are installed, and tires and cushions are destroyed violently. In the absence of supervision, users are more likely to adopt selfish behaviors that maximize their own utility when they don't fully bear the consequences. On the other hand, due to the inability to grasp users' demands in different time and space, the enterprise is blind in the delivery of bicycles. In the interview, some users said that "there is no bicycle around when you need it most". Blind drop can not only meet users' needs, but also lead to low vehicle utilization rate and resource waste.

C. Market Disorder Caused by Lagging Government Management

The enterprise is also fighting for limited public resources while increasing its capacity to attract users. To a certain extent, profit-making enterprises violate urban management regulations by releasing vehicles and occupying public land for business activities without approval. At the same time, it brings the management cost of relocating vehicles to relevant departments. Whether sharing bicycles can use public space for free or not, and what’s the limit of using public space, the government needs to define it as soon as possible. In addition, the government's regulation of the deposit is always absent. Since 2016, some cities have issued their own management measures for sharing bicycles, but these policies are infeasible and poorly executed. In fact, the phenomenon of "kickball" caused by multiple management is widespread. The shared bicycle involves traffic management, market order and finance. It requires the coordination and management of multiple government departments. Through investigation and interview, some scholars found that relevant government departments had a certain wait-and-see attitude toward the new industry, and the division of responsibilities between departments is not clear. In the absence of clear instructions from superiors, there is a lag in the formulation and implementation of policies for emerging industries. [4]

THE COLLABORATIVE GOVERNANCE OF BICYCLE SHARING

The essence of collaborative governance is to realize joint action, coupled structure and resource sharing in the process of jointly dealing with complex social affairs, fundamentally make up for the limitations of governance by a single entity
such as government, market or society, and then maximize public interests at the lowest cost through cooperation between all parties[5]. Market failure and government failure exist at the same time, so the governance of sharing bikes cannot rely on any one subject. The government need to change the pattern of forced intervention, from the public service provider to a regulator and coordinator, guide enterprises in cooperation way and create a fair and orderly market environment for them. The enterprises should be optimized and operated in the framework of laws and regulations, and take the social responsibility in the pursuit of economic efficiency. The citizens behave themselves, increase ownership awareness, actively participate in government decision-making and share the fruits of development.

A. Government: from "rowing " to " steering "

The rise of bicycle sharing has hit the public bikes hard, which is the result of market competition and citizen choice. In some way in the field of public service, government exit is advantageous for the market to work better, but the reasonable exit is not the same as absence. The government should complete the transition from “rowing “to “steering “.

First of all, the government should formulate unified industry norms, strict market access and exit mechanism, control the number of bicycle sharing enterprises, and avoid vicious competition. In the competitive mode of quantity, the spontaneous release of bicycles will often lead to a large gap between supply and demand. Therefore, the government should make plans for the number of bicycles, make reasonable distribution according to the urban population and public transportation network, and avoid resource waste caused by excessive investment.

Secondly, in view of the phenomenon of parking at will and occupying sidewalks and motorways, the government should set parking spots for sharing bikes according to local conditions, in order to alleviate the conflict between sharing bikes and space order. For example, by making electronic map of non-motor vehicle road stop points, Huangpu district of Shanghai comprehensively analyzed all non-motor vehicle road stop points, and sorted out suitable areas and stop points. At the same time, it explores the rules of using and parking for sharing bicycles, realizes gridding and fine management. [6]The government needs to strengthen the construction of non-motor vehicle roads and improve the urban road environment.

Third, the government should regulate public behavior and strengthen guidance. First of all, relevant laws and regulations can be formulated to standardize user behavior. The government should strengthen the construction of credit system, which should start from the concept of big data, reshape the credit order and social conscience, and promote the healthy development of the social organism.[7]Users can only use shared bicycles after they have passed real-name authentication, so as to link their behavior to their credit score. Use big data to monitor user’s behavior, punish the evil and promote the good. The government can also disseminate the culture of integrity and cultivate citizens' awareness of law-abiding and morality.

B. Enterprise: Strict Management and Enhance Competitiveness
Use mass data to find development opportunities and better meet user’s needs. The sharing bicycle is a platform with a lot of users, using the bike GPS to get access to the user's data. Combined with the government's plans, enterprises can allocate bicycles in different time and space according to the data, optimize the layout of bicycles, and avoid spending too much time searching for bicycles. According to the survey, 76.67 percent of users believe that "spending too much time looking for a bicycle" is one of the reasons influencing their use of sharing bikes. According to the interview, during the peak period of use, bicycles in some areas cannot meet users' demands. The majority of student users request to increase the amount of sharing bicycles on campus.

Optimize management and strengthen cooperation between government and enterprises. It is understood that 65.24% of students said they had encountered damaged bicycles and could not use them normally. In the interview, many students also expressed the hope that the enterprises could check bicycles regularly, recyle and repair the broken vehicles in time. Therefore, we advised that sharing bicycle enterprises cooperate with the third department to establish a feedback system, timely eliminate unqualified vehicles and improve service quality.

C. Citizens: Improve Quality and Govern Independently

Regulating the behavior and improve the moral quality. Citizens, as participants and beneficiaries of the shared economy, should be aware of the laws and regulations and ethics. To use the sharing bicycles safely, and supervise the uncivilized behavior. The public is not only the subject that reflects demand and accepts supply, but also should actively participate in the decision-making process, reflect demands and provide suggestions, and pay attention to and supervise whether it can realize the demand of public services.[8]

Based on the community, to play the role of voluntary action. To break the dilemma of collective action, in addition to relying on Hobbes's national force and Adam Smith's "invisible hand", Ms Ostrom put forward a kind of autonomous management solutions. "Neither leviathan nor privatization is a panacea for public pond resources," she says. [9] “A large number of problems of public pond resources in human society are not actually depended on the state or the market. Self-organization and qualifications in human society are actually more effective management of public affairs.”[10]Communities can do a lot of things in areas where governments and markets have no or limited role to play. Due to the small scope of the community, members have a relatively tight bond in their frequent relationships, and have certain information advantages. In addition, individuals within the community are more likely to regard social problems in the community as problems related to themselves and have a good response. So far, cities in China have spawned huge and mature groups of volunteers. Citizens can take voluntary actions in the community, standardize bicycle parking, timely stop uncivilized and irregular behaviors, create a good cycling atmosphere, and promote users to change from "economic person" to "moral person".
CONCLUSIONS

It is impossible to achieve sustainable development only by unilateral governance. It requires sincere cooperation and collaborative governance by all relevant stakeholders to resolve the conflict between the market order and the national order, so as to bring the sharing bicycles out of the governance predicament and realize the well-ordered development.

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REFERENCES