

Study on Sharing Economy Promoting Urban Planning and Policy Reform

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Abstract. Of late years, the concept of sharing bicycle is very popular in China. Massive capital inflow enters this emerging market and dozens of bicycle companies are competing fiercely. While sharing bicycle is changing people's lifestyle and improving people's travel efficiency, many problems are brought along with it. Such as, a large amount of urban space is occupied, bicycles are badly damaged, the operation and maintenance efficiency is low and so on. This paper embarks from the shared cycling status and chaos, to explore feasible solutions. Meanwhile, to propose countermeasures for the governance of shared bicycle chaos.

1. Industry status

China's bicycle market is a very young, and its development is basically divided into two stages. The first stage is mainly driven by piped sharing bicycle, while the second stage is dominated by the rising OFO, MOBIKE and other Internet sharing bicycle companies. According to the official figures of OFO and MOBIKE, the launch of 800,000 and 600,000 has turned the sharing cycle market into a two-strong dialogue. OFO has a market share of around 50%, while MOBIKE's is more than 40%. [1]

In view of that development of city traffic in our country, a new form of sharing bicycle as a Shared economy has been increasing the attention of people since the end of 2016. In view of the problem such as the management of the random train of the bicycle, the management of the "zombie cars" and "the carriage of sick bikes", the occupation of the public space of the city, the recycling of the bicycle, the lack of the integrity of the public and the unperfection of the law, the government should carry out the economic and cultural functions, create a harmonious environment of the vehicle, and guarantee the harmonious safety of the market of the vehicle using the legal authority, and the citizens of the city should abide by the urban traffic regulations consciously to create a harmonious environment of the vehicle. [2]

A Shared bike was a form of transportation that emerged after 2007. On the management features and solving the traffic congestion provide convenience for people to travel. At the same time, there are some disadvantages to a piped bicycle. From the perspective of users, it is too complicated to borrow, and it is inconvenient to find parking spots. In terms of urban planning and policy, the number of piles that need to be higher than the bicycles' to be released, so that the piped sharing

bicycle is too costly and occupies more city space. These disadvantages result in the low utilization rate of the bicycle. Under the dual condition of low user quantity and low usage frequency, it is difficult to make profit and loss becomes the norm. In Shanghai, Hangzhou and other places, there is a high proportion of bicycles relying on government subsidies. Higher up-front investment and later operation maintenance cost determines that if it is to be laid a certain number of cycling outlets, the public financial resources of local governments will be greatly consumed. Accordingly, the marketization of piled bicycles is difficult.

In comparison with the former, bicycle without pile Internet sharing bike the development time is not long. By September 2016, the total number of users of OFO and MOBIKE was less than 6 million. With the help of capital, the number of users has exceeded 1030 million by September of 2017. The dense rail network in the first-tier cities greatly facilitates people's life, and the "last kilometer" from the subway station to the destination has become a huge supply blind area, with more than 6 billion venture capital investment in the market of sharing bikes, and the number of sharing bicycles sharing has exploded.

The main vision of a Shared bike is to solve the "last mile" problem. The actual data also showed that up to 62.9 percent of users used a Shared bike to complete the connection between the station and the destination. In addition, the university is also a huge demand source, and students can commute to the dormitory, canteen, teaching building and laboratory every day, which is relatively rigid and is prone to sticky generation. At the same time, more and more people will choose to travel by bike during the holiday season. Obviously, most people will not choose to buy an expensive mountain bike for the chance. In this case, the bicycle can also meet people's needs.

At present, the profitability of the Shared cycle is quite a single, mainly the rental income of vehicles, financial or interest income and advertising revenue for the vehicle, so that whether the number of users owned is sufficient to be a common concern of the enterprises in the Shared cycle market. OFO stands out for its complete industrial chain and the design of its young aesthetic and its relatively low cost compared with its peers. MOBLKE, with its bike excellent design, leading technology, excellent quality and won the favor of consumers, the high cost of 3000 yuan/m makes the other bike riding experience is much better than the same industry. Overall, the market of sharing bicycles has just started, to enter the market barriers is not high, as long as there is plenty of capital can enter the arena, so also in the face of fierce competition. However, as time goes on, the barriers will gradually increase, and the return period of the deposit, the stickiness and huge advertising publicity generated by the user for a brand will become an insurmountable barrier for later generations and will result in the majority of competitors giving up their hands and exiting the game.

2. Chaos of sharing bicycles

2.1. The city is heavily occupied

Shared cycling in today have a nickname - city "cancer", because of Shared cycling accounted for a large number of urban space. The meaning of sharing word differs slightly from the Shared economy. Brian Chesky, CEO of Airbnb, defines a Shared economy: "Access but not Ownership". A person's extra time and skills can be shared with other people. Unlike AIRBNB, UBER and other Shared economic forms, the OFO and MOBIKE and the biker industries are not collecting the resources of the free cycling to match the needs of the demand, but to create a mass production of new bikes to expand their market share. This is not really a sharing economy; it should be a time-sharing lease. [3]

To be sure, the public's demand for Shared bicycles tends to be rigid and sharing bikes has taken up a lot of urban space in terms of current volume. The original vehicle oriented urban planning of pedestrian space already has a big squeeze, the large amount of investment sharing bicycles is to let people feel miserable, and the sidewalks are so full of bikes. As for the official future of OFO and

MOBIKE, they all want to do the next round of ten million, and the living space of urban residents will be further squeezed.

2.2. Bicycles are badly damaged

According to the sharing cycle data report on Tencent penguin intelligent business in 2017, the user reported trouble ratio of OFO was 39.3%, while the MOBIKE user reported 26.2%. Where does such a high failure rate come from? OFO's failure rate is up to 13 points, and it's possible to think that there's a large gap in the quality of the bike of OFO and MOBIKE, while the failure rate of both of them is at a higher level, the fault is not only the quality of the bicycle itself. As a matter of fact, it is very common to scratch the qr code of the vehicle, the private lock on the vehicle, and the private painting, etc. It is often seen in the news that the vehicle carries out malicious damage. [4]

Normally, a typical bicycle can be used for three to five years, and mountain bikes have a life span of more than 10 years. Back to OFO's bike, the rate of failure in a year is almost 40%. The author believes that this is caused by the sharing of bicycle's own property, and the user obtains the right to use rather than the ownership, so there is no incentive to reduce the loss, and the group behavior cannot be restricted by moral constraints alone.

2.3. Low operating and maintenance efficiency

It is relatively easy to find a Shared cycle where a Shared cycle can be found at that entrance of a university or at the university entrance, etc. And when the user arrives at the final destination, it's relatively difficult to find a Shared bike back on the way back. People's travel destination is chaotic and messy, which decided that the business requires a manual deployment of a Shared bicycle to make more bikes available. Yet for the sheer number of bicycles currently Shared, there is a limited amount of manpower to be deployed. The high rate of damage also makes it necessary for companies to collect and repair damaged vehicles at great cost. For low-cost companies such as OFO, the cost of recycling a damaged vehicle and relaunching it is even higher than the cost of reproducing a new one. In this way, it is difficult for enterprises to have incentive to increase their investment in operation and maintenance. Instead, it will further increase the launch of new bikes.

In addition, the Shared cycling explosive growth is all of a sudden, regulators did not have enough reaction time, Shared cycling related law is still a relatively blank dimension. So far, users and corporations have a small price to pay for the negative externalities of their own actions, whether it's the user's malicious damage to the bike, or the lack of interest in the destruction of the bike, or the overdose of the new bike, there is no restriction on the system and regulations. Under the stimulation of these problems, various related countermeasures began to emerge.

3. Strategies

3.1. Shared cycling booster urban planning reform

For urban planners, the fast growth of Shared bikes is something unexpected. A large number of motor vehicles use non-motorized lanes as parking Spaces, and non-motor vehicle users have to travel with motor vehicles at the same time, which is neither safe nor efficient. The Netherlands, Germany, South Korea and other countries are very friendly to non-motor vehicles. The non-motorized road network spread across the country is not only a kind of encouragement for non-motor vehicle users, but also a prominent contribution to energy conservation and emission reduction. These countries are worthy of reference for the design of the non-motorized road network in urban planning.

It must be admitted that Shared cycling provide convenience for urban residents in solving "the last kilometer" travel problems, such as it is becoming an important part of city life. It is a collective behavior to share bicycle's chaotic and chaotic situation, and it may not be comprehensive to explain

this phenomenon with low national quality. When a user is looking for a designated parking spot at a high time cost, disorderly parking place has become a necessity under the hypothesis of rational man of economics. Although one of the selling points of the Shared bike is the on-off, the excessive casual parking will greatly increase the cost of operation and maintenance and will ultimately be paid for by the enterprise itself. In the same way, for the government, the chaos will worsen the urban traffic and reduce the travel efficiency of urban residents. Therefore, urban planning in the future will definitely need to change at this level, set up more non-motor vehicle parking spots, plan more non-motorized roads, and drawing up the capillary net for urban traffic to be closer to non-motor-friendly cities. In this way, that cooperation between the government and the enterprise will be the inevitable trend.

3.2. National legislation and regulatory authorities

In the face of up to 40% of the failure rate, "bicycle garbage" will become a serious social problem in the near future. In particular, with the Shared cycling market in an unsteady state, the capital is still in full confidence to invest and encourage the business of investing to take a market share, to launch new bike, but the faulty bicycles will be ignored. The negative externality generated by the sharing of bicycles is inevitable, just like the exhaust emissions of cars, the smoke generated by smokers when they smoke, and without specific laws and regulations, the actors do not need to pay for their negative externalities, and they will not be punished accordingly. The low cost of these activities is one of the reasons for the cold disposal of the failed vehicles and the over-saturation of the market in some regions.

The market itself cannot solve the problem of externalities and needs government intervention. Impose a fine may works on a Shared cycle that does not park according to the regulations and to make compulsory scrapping of a Shared bicycle which is already scrapped but still occupies public space are both efficient solutions. The casual parking of motor vehicles is far less than that of sharing bicycles. It is not the quality and moral standards of motor vehicle owners that are much higher than that of the users who share bikes, but the high cost of violation restrains the behavior of the motorist. Although it is difficult to have national laws in a short period of time, many local governments have introduced some administrative measures or business discussions, and they have imposed strict restrictions on the number of bicycles to be shared. It is believed that to some extent, they can alleviate the current situation of sharing bicycles. Urban management, sanitation and other aspects can also be used as method. In their daily work, if the government can provide some degree of subsidy to them to participate in the maintenance of Shared bicycles, it is a good thing for the sharing bicycle enterprises, for the urban management team and sanitation workers. [5]

3.3. Extensive application of credit system

Personal credit will become a very important invisible currency in the future, and the difficulty of consumption, loan, leasing, job hunting and study will be determined directly by individual credit rating. Currently, OFO's collaboration with ant financial has the trend to bind the sesame credit under the ant financial service to the OFO personal account. If the credit value is over 650, you can ride the sharing bikes without a deposit. Under this trend, if ant financial service discharge personal credit rate for the damage of sharing bikes and the behavior of stop. According to the credit, the difference deposit system and even different rent system will effectively improve the existing chaos. This will increase the user's bad behavior costs but may also lose some of the secondary users.

By the same token, the industry of other company also can design a simple set of credit rating system, the use of Shared cycling was, after all, the rigid demand, there are a large number of samples for every user of credit rating, in the short term will improve Shared bicycle enterprise's operation and maintenance cost, but the long-term social benefit is very significant.

4. Conclusions

Shared bicycles are springing up in the market under the promotion of massive capital, and it has brought chaos to the life of urban residents. On the one hand, due to the fierce competition between enterprises, most of the business focus is on grabbing market share and attacking the opponent, which makes no time for social impact. On the other hand, the government's supervision on the sharing bicycles is in infancy, lacking of experience and cannot be relied on, leading to the lack of a code of conduct for enterprises and users. In addition, the updating speed of the urban and rural planning technology standard system cannot keep up with the rapid popularization of Shared bicycles.

For these chaotic images, the author thinks that the future urban planning should reserve some space for the sharing bicycles, including the design of more abundant non-motorized lanes, the arrangement of high-density non-motor vehicles, and so on. It should accelerate that adoption of legislation in the area of cycle-sharing, where local government incorporate local policies. To shared bicycle enterprises, we need to enhance social responsibility, and increase investment in operation and maintenance and management. In a word, to guide the healthy development of the Shared bicycle market, we need to cooperate with all sectors of society to support the development of the Shared cycle in the right track. We hope that in the near future, the sharing bicycles will serve the society better and live in harmony with the city.

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