

Research on the governance of the launch of shared electric bicycle based on multiple perspectives

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Abstract: With the development of the national technology of the Internet of Things and the national advocacy of environmental protection planning, the shared electric bicycle industry has developed rapidly. It not only provides people with convenient and convenient ways of travel, but also causes a series of management problems. When people use shared bicycles, they do not park according to the regulations, which leads to traffic congestion, which not only affects the appearance of the city, but also encroaches on the public space of the city. Based on this, this article explores the issue of the governance of the sharing of motorcycles from a variety of perspectives, carries out an understanding of the development history of the sharing of motorcycles, analyzes the main problems and current situation of the governance of the sharing of motorcycles in China, and puts forward specific and effective measures to improve the relevant problems and current situation, aiming at achieving the standardized management of the sharing of motorcycles, and further helping to improve the issue of its governance, Promote the healthy development of shared electric bicycles in the future.

1. Introduction

In recent years, with the progress of Internet technology, the shared economy model represented by shared electric bicycle has been applied to cities, which has greatly promoted social and economic development while meeting people's travel needs. In the sharing economy mode, as one of the main components of the sharing economy, the shared electric bicycle is a new type of travel tool, convenient and fast. At present, some regions in China have carried out certain pilot work in the transportation industry.

2. Research background and significance

2.1 Research background

In the current era, with the rapid development of science and technology and economy, the sharing economy has also developed rapidly. People have begun to turn their attention to the development of natural ecology, advocating "green travel, energy conservation and emission reduction". The way of sharing electric bicycles has become more and more popular among people

and gradually integrated into their daily life. However, the management problems caused by the investment in shared electric vehicles are also the key problems that need to be solved urgently at present.

2.2 Research significance

In order to reduce the traffic congestion, payment security, social disorder, and vicious competition in the industry caused by the launch of shared electric bikes, the author made a "multi-angle exploration" view based on relevant surveys and analysis, aiming at comprehensively, comprehensively and systematically solving a series of social problems caused by the launch of shared electric bikes in recent years, specifically from the three main aspects of government departments, enterprises, and social groups, Put forward countermeasures for improvement.[1]

3. Literature review

3.1 About the status quo of foreign research

According to the survey on the Internet, Amsterdam was the first to put forward and practice the concept of "sharing bicycles". As early as 1965, Amsterdam transformed its own 50 unlocked bicycles and painted them white, and put these vehicles in all corners of the city. Everyone has the right to ride at will to facilitate the travel of citizens in specific areas, However, before it was put into use on a large scale, bicycles had been destroyed by the quality of citizens, and the project was also largely destroyed and ended in bankruptcy.

In 1995, Copenhagen, Denmark, launched a plan for sharing bicycles in large cities. 1100 bicycles produced after special design were put into specific parking lots in the city for residents to use. They only need to pay 20 francs. When returned, the money will be returned. The way of "coin sharing" of bicycles in Copenhagen has been learned and used by other cities, such as Sanders, Norway, in 1996, Minneapolis, Minnesota, and Sao Paulo, USA, and Helsinki, Finland, in 2000.[2] In 2007, Paris, France, once again launched a public bicycle riding event for the public, but finally announced that the event failed. The main reason was that the low-quality behavior of the participants led to the serious destruction of many bicycles.

3.2 Relevant domestic research

In 2008, China introduced the public bicycle project. However, the public bicycle was actually proposed and controlled by the government. Until the official establishment of Mobai in 2014, the concept of shared bicycle system was finally put forward and the actual organization and operation planning of shared bicycle was carried out. According to the data, in 2016, shared bicycles became popular on the Internet and became popular in major cities in China. In 2017, when China's shared motorbike business was just starting, it was restricted by local policies because of the non-uniform vehicle standards and various potential safety hazards. For example, at the beginning of 2017, the development of electric vehicles was still at an early stage, but due to the restrictions of different regions, the "7" electric bicycle was stopped after only one day of listing in Shenzhen; In March of that year, the Xiaolu motorcycle launched in Tianjin was stopped and withdrawn from the Tianjin market only 12 days later; In August of the same year, the Ministry of Transport issued a Guiding Opinions on Encouraging and Standardizing the Development of Internet Rental Bicycles, which clearly stated that "the development of Internet rental shared bicycles is not encouraged", and pressed the pause button for the development of shared bicycles. However, with the official implementation of the "new national standard" for electric vehicles in 2019, the management ideas

began to change. For example, in March 2019, the Ministry of Transport and other seven departments issued the "Green Industry Guidance Catalogue (2019 Version)", which included the shared electric bicycle of network rental into the development of green industry, and proposed to vigorously develop the construction and operation of shared transport facilities, and vigorously develop shared transport services, which brought new opportunities for the development of shared electric vehicles. Later, during the two sessions in 2020, Gu Shuzhong, a member of the National Committee of the Chinese People's Political Consultative Conference (CPPCC), put forward a proposal for the next step, "to formulate a nationwide network rental electric vehicle specification to guide and support the shared electric vehicle industry", which brings new development opportunities to the shared electric vehicle industry. In this context, in 2020, the domestic shared electric vehicles will return to the track, and the travel giants have also carried out the layout. According to the data, in April 2020, two electric vehicle manufacturers, Fujida and Nippon, received orders of 1 million vehicles. This is to increase the investment in electric vehicles and start to promote the commercialization of electric vehicles. In the same year, Didi's Qingju Bike Plan will receive more than US \$1 billion, and Didi has also integrated the Bike Business Department and the Electric Vehicle Business Department, and established it as the Bike Business Department.

At present, the domestic shared electric bicycle industry has gradually formed an industrial structure of "Hello", "Meituan" and "Didi". Halo is the first to enter this industry, and its scale is also very large. By February 2020, the business of Halo electric vehicles has covered more than 320 cities, and the market share has reached about 70%. It is worth mentioning that, according to the Report on the Development Status and User Demand Analysis of the Shared Bicycle Industry released by the China Cycling Association in 2019, on the basis of the overall improvement of the shared bicycle service experience, the user's demand for the shared bicycle has gradually emerged. Take Beijing as an example, the demand of citizens for shared electric bicycles is about 2-3 times the number of bicycles, and is mainly concentrated in the area within 2 kilometers. The demand of users for shared electric bicycles is gradually increasing.

As the earliest entrant to the shared electric bicycle industry, Harrow Travel has rapidly achieved a leap from 0 to 1 in the whole industry since the first shared electric bicycle "Harrow moped" was officially launched in 2017. At the end of October 2020, Harold moped also appeared on the cover of China Entrepreneur magazine.

The governance issues highlighted in the launch of shared bicycles in cities have concentrated on many problems of the current level of urban governance, and have become a non-negligible obstacle to the rapid improvement of the level of governance modernization.

4. The problems faced by the management of shared electric bicycle under the diversified framework

4.1 Uneven distribution of shared motorbike resources

For the sake of their own interests, the shared motorbike enterprises compete with each other for resources to occupy the economically developed cities, resulting in the uneven distribution of shared motorbike in different cities in China, and the shared motorbike resources in different regions of the same city are also uneven. At the same time, due to business considerations, enterprises blindly put their shared bikes in excess, mainly in densely populated commercial areas, university campus gates, subway entrances and other hot spots, without taking into account the underdeveloped old blocks. This has caused the imbalance of the capacity of the demarcated area where shared bicycles can be parked in the hot area, the serious shortage of parking area resources, and the increasing number of vehicles placed and parked in disorder, which not only brings inconvenience to people's lives, but also affects the image of the city. Therefore, even though most

of the public resources in the busy areas are occupied by the placement of shared electric bicycles, there are tidal vehicles in rush hours, rush hours, convenient maps, parking outside the specified areas, and disorderly parking order, which have increased the burden on urban management and urban appearance order, and have not effectively alleviated the traffic congestion caused by the rush hours of getting off work in the morning and evening, and going to and from school, which limits the use of shared electric bicycles.

4.2 Vicious competition among industries

Due to the low market access threshold of shared electric bikes, shared electric bikes have developed from 2017 to now and have 10 major shared electric bike brands. According to official statistics, there are now more than 200 domestic shared electric car operating companies, and the number of shared electric bikes in first-tier and second-tier cities has exceeded the maximum load of the city. Faced with fierce market competition and high production, operation, maintenance and recovery costs, it is difficult for shared electric bicycle operators to achieve a break-even. At the same time, due to the protection of local companies, the operation standard will be lowered after the bidding, and the phenomenon of disorderly market competition is not uncommon. In order to continuously expand their own market, enterprises are constantly increasing the number of motorcycles, and enterprises with poor qualifications are also blindly following the launch of shared motorcycles. However, the service price, service quality, vehicle performance, etc. of shared motorcycles are limited, and enterprises are gradually generating improper competitive behavior for the benefit of only considering "the one with the highest price", which is easy to lead to vicious competition between enterprises and mutual price increase, The result of this vicious competition is that one company is dominant, and the price increases at will after the monopoly, and the service provided to users does not match the price, which seriously affects the user's experience and hinders the healthy development of shared electric bicycle.

4.3 Potential safety hazards of shared electric bicycle

Reasonable development of shared electric bicycles can cultivate the public's awareness of green travel and reduce the pressure of public transport, but there are also some potential safety hazards. First of all, users' riding safety and payment safety. Some shared electric bicycle enterprises do not have boarding licenses during the operation period, and some users are overloaded while riding, which makes it difficult to investigate the responsibility in case of traffic accidents. Secondly, the battery charging of shared electric bicycle is safe. The charging equipment used by different shared electric bicycle enterprises is different, and the degree of management and maintenance is also different. Some enterprises use relatively standard charging cabinets and develop a 24-hour shift system to ensure that employees work in shifts in the warehouse with charging boxes. Some companies use wire charging, but this method will have great safety risks. Finally, the quality of shared motorcycles needs to be improved. Some enterprises operating shared bicycles are not professional electric bicycle industry, and there is no qualified supervision on the manufacturing process and quality supervision of shared bicycles.

4.4 Illegal use of shared electric bicycle

In recent years, the shared electric bicycle has gradually become the first choice for most people to travel because of its characteristics of pileless parking and convenient use, but there are also some illegal use behaviors. First of all, now we can see that some people who use electric bikes are abusive and riding illegally, ignoring the basic traffic rules that non-motor vehicles should drive in

non-motor vehicle lanes. With the advantages of small and flexible body of shared electric bicycle, cyclists can drive freely or reversely on the sidewalk, between the motorway and the non-motorway, and break the rules to seize and change lanes. Secondly, for their own convenience, individuals park their bikes illegally on tactile paving, fire passages, sidewalks, bus stops, uphill sections and some corners of major business circles. These behaviors not only occupy public resources, but also seriously affect people's travel.

In addition, the use of the shared electric bicycle is a public resource, but after the use, there are all kinds of intentional damage to the shared electric bicycle. First of all, because people who use electric bicycles come from different groups, they will have different ideas and have different quality and moral levels according to different people. For example, people with low moral quality think that the shared electric bicycle is not their own when they use it, and then put it on the ground roughly and randomly after using it, or destroy public goods such as malicious disassembly of the shared electric bicycle without reason, malicious damage of paint modification, etc. Secondly, some people, for their own benefit, maliciously destroy the QR code, car lock system, drilling holes, etc. of the shared motorbike, in order to avoid the charging of the motorbike.

5. Countermeasures and suggestions for the management of the launch of shared electric bicycles from multiple perspectives

5.1 Taking the government as the main body to take the lead in rectifying the issue of the release of shared electric bicycles

(1) Local governments have issued relevant policies in line with local conditions, clearly dividing the areas of putting, riding, parking and prohibiting traffic, ensuring the integrity of the city's appearance and appearance, and uniformly controlling the disorderly parking and disorderly parking of shared electric bicycles. Vehicles that violate parking will be uniformly disposed by relevant departments and local urban management and law enforcement departments.

(2) Design the appropriate release standard and quantity of shared bicycles, and carry out the planning of shared bicycle parking spots according to the urban population, reasonable planning, and the principle of "convenient citizens, reasonable parking, and traffic security".

(3) Led by the municipal public security traffic management department, and jointly controlled by the Municipal Urban Management Commission Office and the Municipal Civilization Office, the city will strengthen law enforcement and create a clean and harmonious city appearance.

5.2 Take enterprises as the main body to carry out relevant governance and optimization measures for the release of shared electric bicycles

(1) In order to solve the problems of safety and vehicle experience in the use of shared electric bicycles, enterprises should continue to innovate in science and technology, optimize and upgrade a series of supporting service systems involved in shared electric bicycles, and bring better riding experience to the masses while ensuring the quality of bicycles.

(2) The single-car manufacturing enterprises should work hard on cutting-edge technology and make great efforts to create single-car technological innovation. Based on big data, the characteristics of user groups are analyzed, and the way of using vehicles is preferred, and the detailed technology is better.

(3) According to the principle, advanced technology should be adopted to ensure the quality of the car body and the perfection of hardware facilities. At the same time, intelligent locks, satellite positioning equipment and other equipment should be set at reasonable positions of the car body to ensure the normal recording of the mileage indicators of a single car and protect the rights and

interests of users.

(4) To establish and improve the social credit system, it is not enough to only publicize and inculcate the concept of civilized use of the people. It is also necessary to establish systems related to personal interests to further restrict people's actions. Therefore, the social credit system can be established and improved, and the use of shared electric bicycles can be incorporated into the personal and corporate credit system and the system of supervision, complaint and review should be combined, Unified in the comprehensive credit evaluation system.

(5) To strengthen the credit system of enterprises is to solve the vicious competition of enterprises, establish the credit system, encourage the fair competition behavior of enterprises, escort the experience of consumers and protect the relevant rights and interests of consumers.

Strengthen the construction of the personal credit system, which is a technology combining the Internet and computers, and incorporate users' improper violations into the social personal credit system. For users who do not meet the requirements of a certain credit score, their relevant behaviors will be restricted, in order to better restrict the user's behavior of using cars and implement the idea of using cars in a civilized way.

5.3 Correctly guide social groups to participate in the supervision and control of the release of shared electric bikes

(1) Improve the overall quality of social groups and promote civilized use of vehicles. In the face of the chaos of the public's order of using cars, there is a situation of privately destroying and occupying the shared motorbike. We should publicize the concept of civilized use of cars to the public, publicize the positive, noble and civilized socialist values, so that the public can actively and consciously abide by social ethics, maintain social civilization with a "master" attitude, and enhance people's awareness of the protection of the shared motorbike.

(2) Urge the masses to abide by the traffic rules, not to ride on motor vehicles, not to run the red light randomly, and at the same time, stop at the designated location as required.

(3) We should do a good job in protecting minors and prohibit them from using shared electric bicycles. At the same time, the public is also called upon to carry out basic safety inspection on the shared electric bicycle before using it, and not to use the faulty or damaged shared electric bicycle to ensure their own riding safety.

6. Conclusion

To sum up, in the face of the era of rapid development of the Internet, the emergence of shared electric bicycle as an emerging product is the product of the development of current history and society with the trend of the times, providing convenient services for citizens to travel, and also providing new ideas for the "last mile" travel, which is justified and reasonable. Secondly, the shared electric bicycle not only meets the requirements of ecological environment protection in China, but also helps people to exercise and reduce the unnecessary automobile exhaust emissions caused by people driving cars for short distances. However, because the links between various links are not close enough, without reasonable and effective protection and the support of relevant laws and regulations, enterprises lack corresponding response measures, and the government cannot solve the urban problems caused by the sharing of electric bicycles in a targeted way. Therefore, relevant departments and enterprises should, according to the actual situation, launch tripartite linkage, and government departments, enterprises and social groups should work together to play a role, and think about the problem from multiple perspectives, comprehensively Perfect problem solving, reasonable and effective management, and timely and efficient solution of existing or imminent risks in the operation process. We will jointly safeguard the appearance of the city and

jointly guarantee and promote the legal, stable and orderly development of the shared electric bicycle industry.

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