

The Development Model of the Sharing Economy in the Era Of Big Data—The Development Path of Shared Bicycles

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ABSTRACT

With the rapid development of the Internet and information industry, the sharing economy equipped with the Internet and big data systems has become a technological economic model. In the field of transportation, the shared bicycle industry has also reached a new height. Emerging industries bring fresh vitality, and the shared economic model brings momentum to market development and strongly affects the traditional economy. At the same time, the research on shared bicycles involves research from multiple angles such as economics, management science, and social governance, and has increasingly academic value. This article explores the performance of shared bicycles in the development of the sharing economy, and explains the elements, impacts, and future prospects of shared collaboration.

KEYWORDS

Sharing economy; Shared bicycles; Development model; Co-governance

1. INTRODUCTION

The sharing economy model refers to a business form in which one party transfers idle resources to another party, thereby obtaining the benefits of the transfer of the right to use. As an emerging economic form, the sharing economy has been constantly updating, not only continuously practicing and accumulating experience in China, but also going abroad and influencing the world. The biggest difference from the traditional economy is that the sharing economy has a wider audience, emphasizing cooperation and coordination between different individuals. The more people participate in the sharing economy model, the more resources, risks and benefits can be shared in the economy. From this point of view, this economic model is more dynamic. Common sharing economy models include shared power banks, shared bicycles, shared hotels, etc. Among the many sharing economy models, shared bicycles are a highlight. As a well-known means of transportation, it has played a typical role in the development of the transportation field, changing people's travel methods and having a profound impact on the social economy.

2. RESEARCH BACKGROUND

Internet + shared bicycles are essentially an emerging sharing economy. Its convenience, speed and green environmental protection have won it wide recognition from the public. Shared bicycles use Internet technology and mobile payment methods to turn ordinary bicycles into instant, efficient and convenient travel tools. Enterprises integrate and optimize the accumulated bicycle resources through the shared bicycle platform, and upgrade them to shared bicycles by installing intelligent systems. After being put on the market, shared bicycles have a synergistic effect with other forms of transportation such as buses and subways, creating a fast channel for travel and realizing resource

sharing and efficient use. China's shared bicycle industry has gone through the embryonic stage, development stage, peak stage and bottleneck stage, and is currently in a stable period of restoring rational operation. Since the advent of the shared bicycle concept, many companies have competed to join the shared market. In addition to Mobike and ofo, which appeared earlier, there were at least 25 new shared bicycle brands in 2016, forming a very fierce competition situation. After several years of commercial baptism, the shared bicycle industry has gradually matured and become an important part of urban transportation. Its emergence marks the technological and intelligent development of cities, and it has pieced together the last piece of the "puzzle" of public transportation. According to statistics, by 2023, the scale of shared bicycle users in China has exceeded 300 million, and the market size has exceeded 10 billion yuan, and the market is still huge.

3. THE DEVELOPMENT STRUCTURE AND ELEMENTS OF SHARED BICYCLES

3.1. The Construction of Sharing Model

Shared bicycle companies use rent as the main source of corporate income. Shared bicycle industry operators connect bicycle manufacturers, shared bicycle platforms, and users, cooperate with multiple software suppliers, build intelligent platforms, and enhance user experience. In addition, regulatory mechanisms and safety maintenance departments are introduced to ensure the stability of the industrial chain. In this operation model, companies play a core role in gathering resources, allocating vehicle resources to users and collecting rent to share operating costs and risks. Later vehicle maintenance has led to an increase in employment. This risk-sharing mechanism reduces the risk pressure faced by individuals and enhances the overall risk resistance.

Shared bicycle companies have also established cooperative relationships with partners such as city managers to jointly build a huge shared bicycle network in the city. Companies are mainly responsible for providing technical support, operation management and capital investment, while partners have provided policy support and site support to shared bicycle companies to encourage green travel, energy conservation and emission reduction, and have formulated a variety of regulations to stabilize this system, creating favorable conditions for the development of shared bicycles.

3.2. Sharing and Utilization of Resources

The industrialization of shared bicycles is achieved through the use of Internet technology and intelligent products. Users can find nearby shared bicycles and unlock them for use anytime and anywhere through mobile phone APPs, without having to worry about repairs and maintenance. It is a minimalist mode of renting a bicycle. The process of using shared bicycles reflects the personalized and immediate characteristics of shared bicycles, which can be ridden by scanning the code. The shared bicycles that can be seen everywhere have solved the travel problems, and the intelligent travel has also brought a higher user experience.

In the development path of shared bicycles, collecting user feedback and timely understanding the latest market needs are essential surveys. Shared bicycles are updated according to user suggestions, and upstream manufacturers are urged to improve bicycle performance and upgrade the network platform simultaneously, such as optimizing the seat height adjustment function, designing a more convenient basket, simplifying the interface of the unlocking application platform and upgrading key functions. A series of measures have increased the availability and humanization of shared bicycles. The travel mode of scanning the code to unlock and ride a bicycle has appeared in more and more cities. The combination of bicycles and online payment is inseparable from the technical support of the Internet. WeChat and Alipay, which are used most frequently in daily life, have also played a great role in the development of shared bicycles. At the same time, this resource sharing model not

only improves the utilization rate of bicycle resources, but also effectively alleviates urban traffic pressure, reduces the possibility of automobile exhaust emissions to a certain extent, and has a significant environmental protection effect.

4. IMPACT ANALYSIS

4.1. Enterprise Benefits

The emergence of shared bicycles not only creates a convenient and low-cost way of travel for users, but also creates huge commercial value for enterprises. In terms of purchasing products, operators do not need to spend a lot of cost investment, and the threshold for entering the shared product market is also very low. As long as they have innovative ideas and resources, they can develop and invest in shared product operations. Enterprises can make profits through user deposits and riding fees. After shared bicycles attract a large number of users, they can obtain income from providing value-added services such as advertising and data analysis. With the blessing of the increasingly large user group, cost operations can bring profits to enterprises. This interest-sharing mechanism also stimulates the enthusiasm and creativity of participants in reverse, promoting the rapid and diversified development of the industry.

4.2. Social Benefits

In terms of social benefits, shared bicycles have brought many benefits to urban development, such as improving urban traffic efficiency and contributing to solving the "last mile" of travel; effectively alleviating urban traffic pressure, reducing the frequency of private car use, reducing road congestion and air pollution; promoting the construction and development of urban green transportation systems, promoting the concept of green travel to the hearts of the people, and enhancing people's low-carbon environmental awareness; enhancing social cohesion, exerting the influence of simple and civilized travel methods, and civilized travel and civilized parking can remind users to maintain their quality level and help build a harmonious society; gradually highlighting the educational function, driving the enthusiasm of user groups of different ages to learn new things and new skills, and from the perspective of using shared bicycles, leading more people to contact the Internet platform. Multi-faceted benefits play a comprehensive role to create a smarter and greener urban system.

4.3. Impact on Social Economy

As a shared economic model, shared bicycles have injected new vitality into social and economic development. Nowadays, there are three companies with high shares in the shared bicycle field, Haro, Qingju and Meituan. Behind the huge scale of development are numerous employment positions. For example, repairing and recycling bicycles require specialized personnel to transport and place them, which has brought about a large number of employment opportunities. At the same time, bicycle manufacturers and network operating companies also occupy a certain space to promote employment development and improve related industrial chains. In response to the requirements of creative transformation and innovative development, shared bicycles have promoted the development of new productivity, promoted the transformation of scientific and technological achievements, and continuously improved the technical level and technological content of products under the test of the market. The promotion of shared bicycles is conducive to improving the overall welfare level of society. When the city's influence is greater and the population attractiveness is higher, the economic benefits of shared bicycles will be stronger in the local area, and it can promote regional economic development, thus stimulating more consumption power. , forming a good circulation pattern. The entry of shared bicycles into the market has significantly increased per capita household expenditure on food, travel and daily necessities that are closely related to travel.

5. CHALLENGES AND PROSPECTS

5.1. Risk Challenges

Although shared bicycles have achieved remarkable success in the sharing economy, they also face some challenges and dilemmas. The next development of the shared bicycle industry also depends on the solution of existing problems and the introduction of supporting measures. During the process of putting the bicycle into use, companies will inevitably encounter problems with bicycle damage or loss. Some users, for their own selfish interests, destroy the QR code on the body of the shared bicycle to occupy the bicycle to prevent others from using it, or even add a bicycle to it. Put on chains. During the riding stage, there are cases where users intentionally damage their vehicles. The main problem is the phenomenon of random parking after the ride. Sometimes the parking area designated by the platform covers a large area, and users will do it in order to get closer to their destination. Parking vehicles at will, occupying sidewalks, blind lanes and even non-motorized lanes, hinders the normal passage of pedestrians and other vehicles.

In the existing profit model, shared bicycles also have some problems. As society develops and people's consumption levels increase, the cost of bicycles also increases. When companies keep rents unchanged, they will be unable to share the increasing costs. If more bicycles are put into the market under such circumstances, it will have counterproductive effects. For example, excessive density will lead to a waste of resources, occupy urban space, and form more intense competition with other modes of transportation. If the advantages of Gaoxing's technology industry are squeezed into the disadvantages of extensive asset-heavy operations, it will lead to disorderly expansion of capital and damage the development of the industrial chain and economic development.

5.2. Solutions

Regarding the difficult challenges faced, manufacturers, shared bicycle companies, and regulatory authorities should all play their roles and work together. Enterprises should change their business strategies in line with the requirements of the times, focus on the sustainability of shared bicycles, strengthen the development of technology, so that more efficient and energy-saving technology can be applied to shared bicycles, select low-priced and high-quality materials, cooperate with manufacturers, and improve according to user needs Share bicycle vehicle performance for further long-term development. Enterprises should adopt a technological innovation route, segment customers based on data management and data analysis, and develop differentiated marketing strategies for different customers. At the same time, we must control costs, plan the goals of each department, handle daily business affairs in a timely manner, and fulfill our corporate social responsibilities. Relevant regulatory authorities must strictly determine market access standards, strengthen supervision of the launch of shared bicycles, guide enterprises to compete fairly, create a good business environment, and standardize enterprises' control lines. For newly developed industries and things, government departments must provide timely training to staff to improve work efficiency. Relevant departments should actively promote the legislation of my country's Internet platforms, ensure the healthy development of Internet platforms, promote consumer surplus, and improve social welfare levels. Of course, as consumers, we must improve our moral cultivation, consciously abide by traffic laws, travel in a civilized manner, and use cars in a standardized manner.

6. CONCLUSION

Innovation leads to progress, and technology changes life. Shared bicycles have been moving forward in twists and turns on the road of development, but the future prospects are broad. Green and convenient travel methods are a bright spot in the process of updating the times, and the sharing economy will also play an important role with the progress of society. The government, enterprises,

and users each play their own role in maintaining the development of shared bicycles, which is conducive to the healthy and sustainable development of the economy and society, and jointly build an orderly society, co-govern a diversified system, and share a variety of benefits in the sharing economy.

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