

# Analysis of Earning Modes of Sharing Economy Enterprises

## Taking Mobike as an Example

Fenfang Liu\*, Han Wang  
School of Management,  
Wuhan Technology and Business University,  
Wuhan 430065, China

**Abstract**—With the popularization and application of new generation information and communication technologies, the sharing economy has become an important form of economic and social development. The fundamental reason why the sharing economy can grow so rapidly in a short period of time lies in its unique earning mode. This article, taking Mobike as an example while coupling with the profit-making experience of the sharing economy industry, deeply analyzes its earning mode, unearths multiple driving factors of corporate earnings, and summarizes many earning modes including "periodic lease + deposit" earning, advertising earning, financing expansion earning, listing value-added earning and etc. However, at present, the earning mode of the sharing economy is not yet mature, and there are problems such as weak profitability and lack of long-term profitability. This requires bike-sharing companies developing the concept of "user first" and form a comprehensive earning mode through a multi-channel operation and development approach. At the end, this paper provides reasonable and feasible suggestions for the sustainable profitability of Mobike.

**Key Words**—Sharing economy; Shared bike; Earning mode

### I. INTRODUCTION

With the rapid development of Internet information technology, the sharing economy is widely penetrating into the whole society, resulting in cross-boundary integration [1]. It constantly creates new products, new services and new businesses, and becomes a new driving force for economic growth [2]. The sharing economy is mainly powered by cloud computing, mobile Internet, Internet of things and big data technology, which plays an important role in promoting China's economic innovation and supply-side reform. As a typical representative of "sharing economy", the shared bike, which organically combines traditional bike industry with Internet application, has become an important breakthrough of sharing economy in the field of real life, updated people's traditional travel concept, and well addressed people's short-distance travel problem. The term "bike-sharing" originated from Europe and did not popularize in China until recent years. Particularly in 2016, when all kinds of shared bikes such as "yellow bike", "orange bike" and "blue bike", etc. filled the streets almost overnight, the sharing economy started to awake in China. In the world of shared bikes, a mode of bike represents a company. All bike sharing companies try to survive through fierce competition, and each one seems to have a promising development prospects and a strong earning mode.

It is because of their good earning modes that they have obtained investment funds from many investment institutions and angel investors. On the financing market, ofo and Mobike raised more than CNY3 billion in 2016, which is by no means the ultimate value of the sharing economy. However, with the rapid development of bike sharing enterprises, the drawbacks in their own earning modes are also gradually highlighted. Under this circumstance, this paper chooses Mobike as an example to discuss the corporate earning mode of bike sharing enterprises, deeply analyze the reasons for the problems in its earning mode, and put forward better optimization strategies of earning mode in conjunction with corporate development characteristics.

### II. ANALYSIS OF EARNING MODE OF SHARING ECONOMY

The definition of earning mode can be divided into a broad sense and a narrow sense. The earning mode in a broad sense includes the income structure, cost structure and target profit of an enterprise, which are all divided by the stakeholder interest structure [3]. In a narrow sense, the earning mode considers more about the operating factors of enterprises, identifies and manages their values, and explores systematic profiting modes in connection with profit source, production process and output mode of enterprises so as to obtain additional profiting opportunities. Popularly speaking, the resource integration between enterprises themselves and stakeholders forms a fixed earning mode, which then plays an important role in the value creation, value acquisition and benefit distribution of enterprises and promotes the formation of enterprise organization mechanism and business framework. Nowadays, with the rapid development of network information technologies, the earning mode of enterprises is constantly updated, but in general, the earning mode is nothing more than "periodic lease + deposit" earning, advertising, financing expansion, "service + brand" profit earning, which are described in detail below:

#### A. "Periodic lease + Deposit" Earning Mode

In the era of brilliant sharing economy, more and more bike sharing enterprises come out, but Mobike occupies most of the market with its innovative advantages. Mobike mainly adopts the earning mode of periodic lease + deposit ". First, Mobike bikes are widely deployed and can be leased at anytime and anywhere. In this way, part of investment is recovered, at the same time the deposit of user is collected. This huge capital

flow is used for market expansion. However, Mobike has a high input cost and a high maintenance cost, implying that the earning from lease is far from enough. Therefore, it is necessary to make full use of the capital flow of the deposit and provide financial support for the later development of Mobike.

#### *B. Advertising Earning Mode*

Mobike has both online and offline development platform. The online one is mainly used for APP development and the offline one mainly for bike development. In this way, the two platforms can be well used to promote advertising online and offline respectively for profit. From the perspective of Mobike APP, users have to scan the quick code in the APP before riding. Therefore, proper advertising within the range visible to user can not only attract customers, but also play a role in publicity [4]. In addition, there are many ways to publicize the APP. The relevant information of Mobike can be attached to its price information and moderately pushed to the users, and the preferential riding advertisement can be regularly delivered. This plays a role in large range publicity. From the perspective of the offline development of Mobike, bike itself is movable. By delivering advertisements to the movable object, cyclists can promote the advertisement in the process of riding and subtly guide consumers to use the bikes, implying that this is a low-cost and high-reward advertising promotion method.

#### *C. Financing Expansion Mode*

Mobike requires the user to pay CNY299 as deposit before riding. Compared with the CNY99 deposit of ofo bikes, the deposit is higher and the available funds are more sufficient. On the other hand, Mobike has fully absorbed capital from all walks of life and obtained huge financial support, which laid a foundation for the scale expansion later. The scale expansion with the existing capital can obtain the following profits: first, the scale effect can be formed by increasing the quantity of bikes, resulting in reduced bike production cost and maintenance cost. Second, expansion through financing can better attract consumers and investors and take higher share in the market. Third, sufficient financial support can promote enterprises to make better innovation, launch more derivative products and services, enhance their own strength and obtain high profits.

#### *D. Service and Brand Profit Mode*

Mobike adopts the earning mode combining service and brand, and has achieved good results, mainly reflected in the following aspects: first, Mobike relies on the integration of capital and riding deposit in the early stage to expand the market in a large scale and expand the consumer market, forming a certain brand scale effect and gaining more consumers' trust. The second, in the market for the race of the bike market, the idea of the brand and the service of the bike, the idea of the brand and the service, is to get the consumer to understand the concept of the brand, to establish a sense of familiarity with the consumer. Thirdly, the essence of Mobike is to provide consumers with a kind of service, which is a necessary part of the daily life of the public. Therefore, enterprises must do a good job in the field of service, so that

consumers can identify the brand concept of the enterprise and obtain the terminal profit income driven by consumers [5].

### III. THE CURRENT SITUATION AND EXISTING PROBLEMS OF EARNING MODE OF SHARING ECONOMY ENTERPRISE -- TAKING MOBIKE AS AN EXAMPLE

#### *A. Introduction to Mobike*

Mobike was established in January 2015. It was developed by Beijing Mobike Technology Co., Ltd. It is a solution to people's short-distance travel demand by means of Internet, and it is an intelligent hardware with no-post borrowing and returning mode. On Earth Day on April 22, 2016, Beijing Mobike Technology Co., Ltd. announced in Shanghai the official launch of intelligent bike sharing service. Ever since Mobike bikes have been deployed in China, and successively in other 9 countries such as Singapore, UK, Italy, Japan, Thailand, Malaysia, US, South Korea, etc. They are deployed in more than 180 cities, and more than 7 million Mobike bikes are in operation. The average daily orders exceed 30 million, and intelligent travel service is provided for nearly 200 million users in the world. It has become the world's largest intelligence bike sharing operation platform and mobile internet of things platform. At present, the riding data of Mobike every day exceeds 30TB, and the riding big data is world leading. This provides practical guidance for the formation of green city, healthy city and low-carbon city.

Mobike innovates based on the form of traditional bike. It combines Internet technology, updates bike body and intelligent lock, and provides GPS navigation system and has extremely high degree of identification. After being put into the market, it keeps improving its products and improves the production and assembly process accordingly, which brings consumers a riding experience with higher safety and better service, and makes it easier for users to travel by bike.

#### *B. Profit Situation in Mobike*

Since entering the market in 2016, Mobike has successively conducted five rounds of financing, respectively gaining large amount of funds from Joyhouse, Hillhouse, Sequoia capital, Warburg Pines, Tencent, Ctrip, Temasek and etc, and provided financial support for its later development. At the initial stage when the project enters the market, it is characterized by high amount of financing and obtaining financing income. After having a large amount of capital flow, enterprises begin to expand the market, seize market resources, promote the enterprise development and continue to obtain considerable income [6]. As can be seen from the following Table I, Mobike total sales volume and main business income in 2015 were zero, with no income at all. However, since Mobike was officially put into use in the market in 2016, its asset income increased rapidly, and its profit turned from negative to positive, fully demonstrating the huge advantages of its own earning mode.

#### *C. Problems with Mobike's Earning Mode*

Although Mobike has achieved good development by relying on its unique earning mode, it still has some problems

compared with other sharing enterprises, such as lack of long-term profiting points and weak profitability

TABLE I CORPORATE ASSET STATUS OF MOBIKE (UNIT: CNY10<sup>4</sup>)

Year	2015	2016	2017
Total assets	482.51	12634.57	69876.15
Total owners' equity	-132.57	-6322.55	-22309.94
Total amount of sales	0	8457.31	35094.75
Total profit	-552.57	6759.01	73421.86
Main business income	0	5585.40	62192.04
Net profit	-552.57	3012.71	43659.32
Total amount of tax	0	753.18	10914.83
Total liabilities	615.08	18957.12	92186.09

Source: Enterprise annual report 2015-2017

*1) Single Earning Mode*

In recent years, although bike sharing enterprises grow quickly with its ingenuity, there are still many problems that cannot be ignored [7]. From the perspective of profit of Mobike, first of all, its capital source is relatively single, mainly for financing and investment, and the income is only the bike deposit and riding fee. For consumers who do not travel often, the deposit paid in the process of use will be returned within the first time after the end of use; For consumers who travel frequently, although they will always invest the money, they may need to withdraw it at any time due to the instability of market users and other special reasons, which leads to the uncertainty of the deposit. In the final analysis, Mobike does not have the right of use of the fund in a substantial way, so it cannot use the fund at will. A little carelessness will lead to a vicious circle in which the fund cannot be returned [8]. Secondly, Mobike has low riding cost and little profit. The cost of a Mobike bike is CNY3000, but the rental is only CNY1-2. Most people rent at most four to five times a day, even if Mobike is rented in the whole year without interruption, it needs nearly 2 years to recover the cost. Thus it is a long payback period to the enterprise, resulting in great distress in profiting and normal operation of the enterprise. At the same time, development of the enterprise is limited.

*2) The Industry is Too Competitive*

At present, the market competition is very fierce, and its rapid copy-paste earning mode leads to serious product homogenization. But due to absence of innovation, all enterprises are trying to seize market resources. As can be seen from the relevant data, there are more than 30 bike-sharing brands in Chinese market at present, and each bike brand has its fixed investors, so the market is highly competitive. From ofo., Mobike, U-bicycle, Kuqi bike, Xiao Ming bike to Bluegogo, these colorful bikes, have obtained a lot of financing capital and began to deploy bikes of their own brands in the cities, without considering capacity of the market, resulting in lower and lower identification of a bike and bad competition situation. Although profiting is the nature of the sharing economy, because of low access threshold, lack of market and government regulation, unsound legal system, the enterprises deploys bikes on the market much more than enough, resulting

in great waste of social resources. This is obviously not in conformity with the principles of sustainable economic development, also against the original intention of the bike. At the same time, abnormal market competition leads to using problems such as the too many bikes obstructing normative parking, riding on the sidewalks, a large number of bikes thrown away as rubbish and so on. All of these seriously affect the overall image of the city and orderly traffic of the city, and cause the pollution of the environment.

*3) Maintenance Cost of Single Vehicle is Too High*

Mobike is innovative product in the bike rental industry. Compared with the traditional bike industry, Mobike does not have a fixed parking place, let alone a dedicated custodian. Therefore, there is almost no fixed inspection and maintenance process for Mobike. First users get bike through online platform for riding, but operators can only make supervision online, and do not know the quality problems in real-time so that many locks of bikes are destroyed or the bike is discarded, which greatly increases the maintenance costs. Secondly, the short service life and long-term placement in the public environment of shared bikes also cause a lot of depreciation losses. However, in cold winter and hot summer, the use rate of shared bikes is lower and the cost is even higher. Finally, the maintenance cost of shared bike APP is too high. The bike online APP is based on mobile internet, but in rush hour, network data cannot be updated quickly, often causing unsuccessful user login, etc. All of these need to increase the maintenance costs.

TABLE II MAJOR FIANANCIAL DATA OF MOBIKE, IN MILLION YUAN

Cash	Revenue	Accounts Payable	Deferred Revenue	Cost
3752	110	1001	623	565
Depreciation	Operating Cost	Management Expense	Asset Impairment	
282	283	146	80	

Source: Netease finance

IV. SUGGESTIONS

*A. Explore Diversified Earning Modes*

Judging from the experience of shared bike projects that have been established at home and abroad, the innovation of earning mode can be considered from the following aspects: first, investment income. Mobike has sufficient deposit precipitation funds, which can be fully used for steady investment and considerable time value profit. The other is to innovate the way in which the deposit is used. Develop new investment and financial management functions online so that the deposit paid by users can also become a personal financial investment [9]. Calculate according to the time cycle, and regularly issue the deposit and financial management income to users. Third, that is to develop the derivative products and services. The development of Mobike rental APP is obviously expansionary. As Internet software, it has its own production platform, which is an advantage. Mobike can make use of this advantage to develop some derivative products and services of the platform, which can not only fill the redundancy of software operation outside the peak period, but also ensure the

stickiness and activity of the platform. On the other hand, the online platform can accumulate users' riding data on the APP, deeply develop the service in the field of fitness, and provide better fitness guidance to consumers through monitoring, collection and analysis of relevant data, so as to improve the profit and income of enterprises [10].

#### *B. Improve Technology Research and Development and Seek Multi-party Cooperation*

Since the advent of Mobike, it has been difficult to have a breakthrough, and to achieve sustainable and steady development in various industries, we must improve technology research and development, improve market access barriers, so as to have the opportunity to take the initiative in the market. Mobike enterprises can improve technology research and development from the following points: first, set up a special technology research and development team, subverting the earning mode of easy replication and easy migration of shared bikes, updating the use of technology, incorporating higher technology concepts, and improving the market access threshold. Secondly, consumer-centered innovation, in-depth consumer daily life, committed to solving the common difficulties in the masses, the development of innovative technology, for users to bring a more comprehensive and extreme experience. Thirdly, build personal credit system in online APP software, launch "credit score" mechanism, regulate user behavior of using bike, and cultivate users' awareness and habit of using bike in a civilized way. Mobike enterprises should also actively seek multi-party cooperation and comprehensive development. For example, in cooperation with the government, according to the parking point guidelines, relevant principles and guiding opinions of the government, the parking points can be specifically implemented to solve the problem of bike use and parking. At the same time, the government can also jointly fund the establishment of urban riding lanes, tree-lined roads and other slow traffic systems to encourage people to travel green.

#### *C. Establish a Mechanism to Protect the Interests of the Demand Side*

In Mobike earning mode, there is a very important point, which is the financial problem of consumers. Users have to pay CNY299 deposit to use the bike, and many users are afraid that the money cannot be returned later, so they give up the use of their products. Instead, OFO bikes with less deposit are chosen to pay, resulting in lose a lot of potential users. Therefore, in order to achieve lasting profits, Mobike must establish a mechanism to protect the interests of the demand side, which can be started from the following aspects: first, use the third-party payment platform. Mobike can follow the example of Alibaba and set up a third-party payment platform between consumers and enterprises, where users' payment stays in the third-party account with clear rights and responsibilities and no encroaching on each other's funds. Second, disclose the business performance. Mobike can develop relevant platforms in its APP, and disclose the daily operation status, input location, input cost and daily riding revenue of the enterprise

on the platform, so that consumers can know the enterprise from time to time, increase their trust in the enterprise, and greatly reduce the maintenance cost.

#### V. CONCLUSION

At present, the competition in the bike sharing market is very fierce. More and more enterprises and capital companies are extending their tentacles into this field. However, not all enterprises can finally stick to this field. Only those enterprises with strong profitability can stand firm in the new era of continuous change and development [11].

As an active player of the sharing economy, Mobike has become the first choice for people to travel for short distances. However, while relying on its unique earning mode for development, Mobike shall not ignore the existing problems in its earning mode, which might restrain its long-term development. To address these problems, this paper proposes the following measures such as exploring diversified earning mode, improving technology research and development, seeking multi-party cooperation, and establishing a mechanism to protect the interest of demand side, etc. in a bid to enable its long-term sustainable development.

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