Financing Strategies of bicycle-sharing firms: a case study

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ABSTRACT

In recent years, bicycle sharing becomes a popular concept in China. Many companies are established to provide bicycle-sharing service to the public. As technology startups, these companies usually make several financing rounds during their growth. This study aims to research the causes and effects of the companies' financing strategy. Three companies in the industry are studied separately. I find that the choices of the financing strategies are often structured by the factors like the policy, industry development, technology growth, and the pros and the cons of the financing methods. The effects of the financing strategies lie on the market perspective like market share and future perspectives like new market development. What's more, the result of this research shows that company's performance is one factor that can influence the choice of financing strategy, and in return, financing strategy can influence company's performance.

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Keywords

Sharing economy, Financing strategy, Performance, Technology startups

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1. INTRODUCTION

Sharing economy (collaborative consumption) is the peer-to-peer based activity that obtains, gives, or shares the access to goods and services, coordinated through community-based online service (Hamari, Sjöklint & Ukkonen, 2016). Now, a new industry of sharing economy, bicycle-sharing, which aims to solve the problem of 'Last one Kilometer'[1], is booming in China. Compared with the previous public bicycles, the sharing bicycles have two features that make them more convenient for customers to use. First, the bicycles use e-lock instead of traditional key-lock. People can quickly open the locks by scanning the QR codes on the bicycles with their mobile phones. When people finish using and lock the bicycles, the app will calculate the costs and charge the fees from the account directly. No other actions are needed. Second, sharing bicycles do not need parking piles. The users are more flexible than the public bicycle users when returning the bicycles because they can park the bicycles to wherever they want instead of to a specific place. GPS technology makes it possible for people to find the bicycles that are available around by using App. Also, compared with traditional public bicycles, sharing bicycles have many packages that make them much cheaper. For example, in 2017, Ofo has a package of 1 CNY for one-month free riding while public bicycles cost about 1 CNY per hour. For people who use bicycles regularly, buy a sharing bicycles' package helps them to save money.

With the advantages mentioned above, the industry grew rapidly. There were about 20 million active sharing-bicycle users at the end of the year 2017 (iResearch, 2017). Seeing the massive market for the business, more and more people decided to set up a company and enter the industry. However, many of these companies closed very soon. According to Xiaoming Liu, the vice transport minister in China, there were about 77 bicycle-sharing companies in China at the beginning of 2017, and more than 20 of them closed after the fierce one-year competition (China Business Network, 2018). Many researches have been done to examine the causes of these companies' close. Ma examines the current situation and bottlenecks of sharing economy in China and finds that the regulations in China do not suit the development of sharing economy. And also, the imperfect credit system forbids future growth of sharing economy (Ma, 2016). Bi states that the conflict between customers and government has a negative impact on bicycle-sharing industry' growth. Users want to park the bicycles to wherever they want. However, free parking leads more governance and environmental pressures on government (Bi, 2017). Jiang, Zhu and Pang find that market monopoly is one of the most important causes of the close of these companies. Beijing Bailok technology co. LTD and Beijing Mobike technology co. LTD, as two leaders of the industry, share 92.6% of total market. All the rest companies divide other 7.4%. With low market share, companies will not put too many bikes into the market while the small number of bicycles require customers to pay more time to find a bicycle when they want to use. That makes them feel inconvenience and would like to choose another company's product. These small companies fall into a vicious circle and were driven out in competition (Jiang, Zhu & Pang, 2018). However, these researches focus on the governance, people and market aspects, and ignore the influence of the financial aspect.

There is an unspoken rule within the industry that the companies use part of customers' deposits[2] to do research & development and also some external investments. So the companies need to raise capital to cover the gap between the deposits and the actual capital they held. According to the industry report (iResearch, 2017), bicycle-sharing companies raised about 25.8 billion CNY in total in 2017, and almost all of the money comes from private equity financing. For all the companies that were using equity financing, only a few of them received series C and later round fundings while all others failed. Once the companies failing to raise capital, they may have difficulty in paying the money back if a large number of customers want to withdraw their deposits at the same time. Cannot pay the money back immediately when the request has been sent show a signal to the customers that the companies have problems with their cash flow. More people try to withdraw their deposits in case the company bankrupt. That leads to more pressure on companies' finance. Moreover, with negative news, bicycle-sharing companies find it much more difficult to raise money than before. After failing to obtain capital on time, these companies face the risk that the capital chain of the companies might be broken (Li, 2017; Ding, 2017; Gao, 2017). Then the companies are listed on the catalogue of enterprises with irregular operations or closed soon.

What happened in the industry shows that financing strategies of the companies might play an important role in the survival and growth of the company. However, what the researchers have done now rarely focus on this aspect. A gap in the study on the impacts of financing perspectives on this kind of industry led to the inadequately covered knowledge domain. This paper aims to analyse the role of financing strategies in the company. The analysis will focus on both cause and impact aspects. Two research questions are proposed. They are:

- What determines the financing strategies in the companies? and

- How do the financing strategies impact the companies' performance?

Three bicycle-sharing companies have been chosen to perform a case study to answer the research questions. The three companies are Beijing Bailok Technology co. LTD (the company which has financing strategies of equity financing and debt financing), Guangzhou Yue Riding Information Technology co. LTD (the company has the financing strategy of equity financing) and Yongan Low-carbon Future Technology co. LTD (the company which has financing strategies of internal financing and equity financing). These three companies together cover different kinds of financing strategies that have been used in this industry and also contain different kinds of investors for the same financing strategy (e.g. Financing institution, company, or individual as the investors).

The study will analyse the causes of each round financing and the impacts that the financing brought. In the meanwhile, the financing environment will also be analysed.

2. CONCEPTUAL FRAMEWORK

2.1 Organisational Life-cycle

The organisational life-cycle is the pattern of predictable change through which the organisation moves from start-up to

[1] People need to walk for a long distance from metro/bus station to their destination.

[2] Before the first time the customers use the bicycle, they need to deposit a guaranty into their account. It's usually between ￥99 to ￥299. Customers can withdraw the money if they do not want to use the sharing bicycles anymore.

dissolution (Robbins & Barnwell, 2006). Robbins and Barnwell divided organisational life-cycle into five stages, they are entrepreneurial stage, collectivity stage, formalization-and-control stage, elaboration-of-structure stage and decline stage. Each stage has specific features that distinguish it from other stages.

2.1.1 Entrepreneurial stage[3]

This is the infant stage of the company. In this stage, the goal of the company is fluid or ambiguous. The creativity and managerial input of the company is high. To enter the next stage, the company needs to acquire and maintain a steady supply of resources such as capital and labour.

2.1.2 Collectivity stage

At this stage, the organisation's mission is clarified, and its chance of survival has increased. Usually, the company is quite small. Communication and structure within the company remain informal and the management is intensive and hands-on. Members put in long hours and demonstrate a high commitment to the organisation.

2.1.3 Formalization-and-control stage

Innovation is de-emphasised at this stage while efficiency and stability take on greater importance. As the predictability of the future of the company increases, the formal rules and procedure are imposed. At this stage, roles have been clarified and defined, and the organisation exists beyond the presence of any one individual.

2.1.4 Elaboration-of-structure stage

At this stage, management searches for new products and growth opportunities to maintain the momentum of expansion. The structure of the company becomes more complex and elaborated. Organisations usually reach a large size at this moment.

2.1.5 Decline stage

The decline of a company is driven by competition, poor management, fashion changes, technology obsolescence or similar forces. Managers try to search for ways to hold markets and look for new opportunities. Employee turnover, especially among those with the most saleable skills, escalates. Conflicts prompted by the shortage of resources and disagreements over strategy increases within the organisation. Eventually, the organisation ceases to exist

2.2 Financing Strategy

From a startup to a successful large business, a company needs capital to run its daily operation, to survival from competition and to expand markets. So how to find the necessary capital on time is essential to all companies.

Halt, Donch, Stiles, and Fesnak (2017) summarise the financing strategies for technology startups. There are four main funding strategies: Seed Capital and Early-Stage Funding, Equity Funding, Debt Funding, and Mezzanine Financing, each with both advantages and disadvantages.

2.2.1 Seed and Early-Stage Funding

Seed funding is one kind of early-stage financing that a startup uses to launch an idea. The company is in the entrepreneurial stage at that time. The difference between it and other kinds of early-stage funding is that early-stage funding represents typically when the business is close to having or already has some revenues but remains unprofitable while seed funding is generally when the business is pre-revenue, and may still develop a working model of the product or technology (Halt et al., 2017).

While there is only an idea about the business when the company is seeking seed funding, the risk that investors can not earn revenues from the investments is high. That leads to a situation that startups usually rely on the sources of personal investments, friends and family funding, crowdfunding, and government grants (Halt et al., 2017). Some pros and cons that are related to this type of funding could be found.

2.2.1.1 Advantages and disadvantages

One of the most important advantages of seed funding is that it can be obtained much easier than other types of funding for a company on the entrepreneurial stage. As the family members and friends know the founder of the company well, they are more likely to say 'yes' to the request. Money can be quickly raised compared to other funding methods. Also, seed financing is usually flexible and inexpensive compared with many other financing methods, at least with more formal venture investing (Leach & Melicher, 2015).

However, the relationship can bring some adverse effects on the company. Family members and friends cannot evaluate the potential of the business as good as financial institutions can, so they may neither add value nor give advice to the business. At the same time, the high risk of the business might damage the relationship between the founder and his/her family members and friends. For some founders, they may use personal credit cards to help finance their business, and this kind of action is also risky (Leach & Melicher, 2015).

2.2.2 Equity Funding

Equity funding, or equity financing, is the most common source of funding for early-stage companies. With the advantages of eliminating and reducing the risk associated with cash flow problems for debt interest payments, equity financing requires the dilution of ownership of the company for the company's founders (Halt et al., 2017). Venture capitalists, angel investors, and private equity partners are often be described as the most important sources of financing for small business especially when banks hold off on providing financing before the company enter the growth phase. What need to be noticed is that equity financing is not a financing method that can only be used by startups. Actually, companies can use it through the whole life-cycle stage.

Venture capital, which often referred to as the "money of invention", is a form of fund to provide value-added resources to entrepreneurial firms (Cumming & Johan, 2014). Venture capital funding is often conditional—meaning the funds usually come with strings attached. They are typically looking to invest in companies with potentially large and lucrative markets, strong management/advisor team, and a business model that they feel can be executed (Halt et al., 2017). Venture capitalists, as active investors[4], have positive impacts on companies' future growth. According to Inderst and Mueller (2009), in a market that competition absent, new ventures financed by active investors grow fast initially, though, in the long run, those financed by passive investors are able to catch up. Also, the higher competitive the market is, the higher value that the active investors have. Different from venture capital, angel investment has fewer criteria to be considered. Wong, Bhatia, and Freeman (2009) indicate in their paper that comparing with venture

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[3] All the information in section 2.1.1 to 2.1.5 are quoted from Robbins & Barnwell(2006).

[4] Actively involved, hands-on investors that can mitigate the inefficiencies caused by agency problems between entrepreneurs and investors.

capital financing, angel investment takes on more risks and invests smaller amounts in younger firms. Angel investors appear to nurture younger firms until the company is established enough for venture consideration (Wong et al., 2009).

2.2.2.1 Advantages and disadvantages

As mentioned before, equity financing reduces the risks that associated with cash flow problems which could happen in debt financing. Especially for the companies that do not initially generate profit, equity financing helps the companies to survival and growth. Also, with shares in the company, outside investors expect the companies to deliver value, and they will help to explore and execute growth ideas. At the same time, companies can learn knowledge and skills from the investors.

Besides the benefits that equity financing can bring, there are also some disadvantages. First, equity financing is time-consuming. The investors will carefully evaluate the firm based on its past performance and future perspective. The process can last for a long time. Many uncertainties could happen during that period. Second, equity financing is costly. Companies need to share their profit with the investors, and that is only part of the cost. What's more, equity financing can also lead to loss of control and potential conflicts. With more investors enter the company, the power of the previous owners will be diluted. That means they lose the control of the company. At the same time, due to the difference of interests between different shareholders, agency problems will arise.

2.2.3 Debt Funding

Like equity financing, debt financing is a financing method that can be used through the whole life-cycle process. It is essentially a loan whereby the lender retains no ownership in the business in exchange for the loan but earns interest on the amount borrowed (Halt et al., 2017). The debt holders have contracts specifying that their claims must be paid in full before the firms can make payments to their equity holders (Hillier, Grinblatt & Titman, 2012). That means the firms that use both equity financing and debt financing need to pay money to the debt holders at first based on the contracts they have signed. After paying the debts with the interests, the profit can be paid to the equity owners of the company.

2.2.3.1 Advantages and disadvantages

One of the advantages of debt funding is that the equity of the company is not shared as what equity financing does, and also the profit. The owners of the companies can maintain their ownership and retain profits. Another advantage is the tax deduction. Interest fees for a loan that are made by a company are tax deducted. That is a big incentive for companies to borrow loans. According to trade-off theory of capital structure, firms borrow up to the point where the tax benefit from an extra pound or euro in debt is exactly equal to the cost that comes from the increased probability of financial distress (Hillier, Clacher, Ross, Westerfield, & Jordan, 2014). At that point, companies receive the most significant benefit from borrowing money. Debt financing could have a positive relationship with firms' future performance. Cloe and Sokolyk (2017) analyse the relationship between different forms of debt financing at the firm's start-up and subsequent firm outcome. They find out that start-up firms with better performance prospects are more likely to use debt and, in particular, business debt[5].

[5] Business debt means the debt is obtained in the name of the firm contrast to the personal debt which is obtained in the name of the firm's owner.

At the same time, some disadvantages can be found for this financing method. First, debt financing has several financial requirements and restrictions that the borrowers must meet (Hillier et al., 2012). New businesses may find it difficult to secure debt finance. Second, the companies face the risk of bankrupt when doing debt financing. Companies must repay the lend money and interests to the lenders. Lenders will typically demand that certain assets of the company be held as collateral, and sometimes the owner is often required to guarantee the loan personally. What's more, with too many loans, companies might be seen as highly risky by potential equity investors, and that limits future equity financing opportunities for these companies.

2.2.4 Mezzanine Funding

Mezzanine financing is designed to bridge the gap between debt financing and equity, contains either debt with warrants[6] or convertible debt[7], reducing the risk for all parties involved (Halt et al., 2017)

2.2.4.1 Advantages and disadvantages

For companies, mezzanine financing allows them to secure funding for growth with less collateral. Compared with equity financing, though owners of the companies lose some of the independence, they do not lose the outright control of the companies. However, the interest rates on this type of loan are comparatively high. So it is an expensive source of capital.

2.2.5 Internal Funding

Besides the four financing methods for technology startups that are mentioned by Halt et al. (2017), there are more choices of financing strategies for companies at a later stage in business life-cycle. Internal financing is one way for these companies to raise capital. These companies can use their profits as a source of capital when they need money instead of raising money from outside of the company.

2.2.5.1 Advantages and disadvantages

Compared with equity funding and debt funding, raising capital through internal funding is much quicker. Capital is immediately available (Hubbard, Kashyap, & Whited, 1995). Also, internal funding helps to retain ownership. For example, if companies use equity financing to raise money, the investors could get part of the ownership. If companies use debt financing to obtain capital, companies may lose the collateral if they cannot repay the loan. Internal financing does not have that problem.

Some disadvantages can also be found. Internal financing means companies use internal resources to make an expansion, which takes money from operating budget or capital and leaves less money to manage daily expenses. Lacking secondary 'audit' is another advantage for internal funding. When companies apply external financing, the investors or lenders will evaluate the project. However, if companies use internal financing, they need to do the evaluation themselves. It could lead to an inaccuracy result if the companies do not have the ability to do the evaluation.

2.3 Pecking Order Theory

Myers and Majluf came up with pecking order theory in 1984 states that company follows an order of preference in financing

[6] Rights or options to purchase a venture's stock at a specific price within a specified period.

[7] Capital that begins as a loan and later converts to equity if the loan is not repaid or a specific return on investment has not been achieved

decisions. According to the theory, the company prefer to generated cash flow within the company. When capital is exhausted, debt financing will start. If sources are still needed, the company will issue equity in the end. The costs of these financing are different, where internal financing is the cheapest and equity financing is the most expensive. Due to information asymmetry, investors may look down on the company when the company perform equity financing, and the stock price will fall (Myers & Majluf, 1984). The equity financing should only be used if internal financing and debt financing cannot satisfied company's need.

While the theory mainly focuses on listed companies, many researchers try to find out the pecking order theory in private (unlisted) companies. Zeidan, Shapir, and Galil (2018) survey to explore the financing behaviour of private SMEs in Brazil. They find out that over half of the companies prefer internal financing than other kinds of financing strategy and they also find a direct relationship between growth opportunities and retained profits. Their findings verify the pecking order theory.

Serrasqueiro, Armada, and Nunes (2011) exam the capital structure decision in service SMEs and find out that their capital structures are entirely different from those of other types of firm. The empirical evidence obtained by them shows that service SMEs resort to debt more as a consequence of insufficient internal finance, and less with the aim of attaining a target debt ratio that balances the benefits and costs of debt. That means the capital structures in service SMEs are closer to the suppositions of Pecking Order Theory.

Bhama, Jain, and Yadav (2017) test pecking order theory among 312 Chinese industries under deficit and surplus situation and find out that under deficit situation firms are adhere perfectly to the pecking order while show indifferent to redeem debt in surplus situations.

2.4 Agency Theory

Agency theory states that the company is run by one party, agent, on behalf of another party, principle. It argues that the modern corporation, in which share ownership is widely held, managerial actions depart from those required to maximise shareholders' returns (Kline, Berle and Means 1933; Pratt and Zeckhauser, 1985). Different composition of the ownership creates different ownership structures, which could affect company's financing decision because of interests conflict between shareholders.

Al-Fayoumi and Abuzayed (2009) find a negative relationship between the managerial insiders and capital, suggesting that, managers employ lower debt in order to reduce the performance pressures associated with high debt capital. Crespi and Scellato (2010) find an inverted U relationship between the concentration of ownership and the elasticity of investment to cash flow. At the same time, the relationship between investment decisions and internal funds is significantly influenced by monitoring efforts played by institutional investors. Croci, Doukas and Gonenc (2011) find that family firms have a preference for debt financing, non-control-diluting security, and are more reluctant than non-family firms to raise capital through equity offerings. Mertzanis (2017) examines the relationship between ownership structure and access to finance in developing countries and finds that ownership structure is a significant predictor of firms' access to finance. He finds that private ownership of firms is associated with more binding financing constraints, while foreign owners tend to make them less binding.

2.5 Performance

2.5.1 The measurement of the performance

Maltz, Shenhar, and Reilly try to establish a framework to measure companies' performance. They believe it is critical that any prescriptions for performance measurements should be simple, dynamic, and flexible over time, foster improvement, and be linked to the organisation's strategy, goals and objectives (Maltz et al., 2013). After reviewing 51 empirical studies of entrepreneurial performance published, they summarised five domains to measure companies' performance; these factors are financial, market, process, people and future. The financial aspect is the traditional approach to an organisation's success. It contains measures such as sales, profit, or return on investment. Market aspect concerns the relationship between companies and their customers. The measures like customers' satisfaction, market share of the companies, and retention rate are included in this aspect. Process aspect reflects the efficiency and improvement view like cycle time of the company. People development as the fourth factor focuses on the human resources inside the companies includes employees' ability, management leadership, retention of the employees and others. The last aspect is about the future foresight of the companies. Whether the foresight of the companies is clearly expressed must be vied as a critical organisational issue (Maltz et al., 2013).

However, different types of companies might need different measures of success, and one set of measures cannot fit all organisation. To solve this problem, Maltz et al. (2013) build up a baseline measurement based on a number of fundamental measures they found from empirical studies within each dimension. After that, some additional factors added to the measurement according to different types of firms. In Appendix 1, there is a figure states the summary of suggested success measures for different firm types.

2.5.2 Impact of Financing on Performance

Some empirical researches have been done to examine how the different financing methods influence company's performance through both direct and indirect way.

Nguyen and Rugman (2015) study the internal equity financing of the multinational subsidiary and find out that subsidiary-level financial management decision-making has a statistically significant positive impact on subsidiary performance. Croce, Guerini and Ughetto(2018) find that business angel investment is positively associated with a better interim performance[8] and ultimate start-up's success [9] . Equity financing and debt financing, as mentioned before, can affect companies' performance like decrease share price (Mayer & Majluf, 1984) and reduce tax payment (Hillier et al., 2014).

Financing activities can indirectly influence Companies' performance through the intermediate like capital structure and ownership structure. Modigliani and Miller (1963) analyse the present value of tax shield at the corporate level and find that the higher the debt ratio, the higher the company's value. However, Chadha and Sharma (2015) find financial leverage could have some negative impacts on companies' performance. They find that financial leverage is negative and significantly correlated with return on equity while has no impact on the firm's financial performance parameters of return on asset.

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[8] Interim performance is proxied with the total amount of financing received by the start-up, the receipt of a follow-on round of financing and the ability to attract VC investors

[9] Ultimate success implies the "cashing out" of the investment through an IPO or an acquisition

The ownership can also influence the performance of the company. Randøy and Goel (2003) find that a high level of board and insider ownership has a positive impact on firm performance in founder-led firms, but an adverse performance effect in non-founder firms. Empirical evidence suggests that in firm level, the greater the size of the board, the lower the performance (Donadelli et al., 2014).

3. METHODOLOGY

A case study will be performed to test the causes and impacts of some financing strategies. Three companies are chosen to do the analysis. They are Beijing Bailok Technology co. LTD, Guangzhou Yue Riding Information Technology co. LTD and Changzhou Youon Low-carbon Future technology co. LTD. These three companies together cover different kinds of financing strategies that have been used in this industry, and they show different performance.

The study will be divided into three steps:

1) Analyse the current situation, like the number of the companies that are survived, the macroeconomic, and the investment environment of the industry. 'PESTEL' analysis will be used to analyse the external environment. 'PESTEL' stands for Political, Economic, Social, Technology, Environment and Legal. It is a tool that first appears in 1967 named 'ETPS' by Aguilar. Several researchers (Brown & Weiner, 1985; Davenport & Prusak, 1997; Morrison & Mecca, 1989) expand the 'ETPS' model with legal and environmental aspects later, which makes it the 'PESTEL' analysis.
2) Analyse the causes of financing strategy in each round financing in each company. When evaluated the financing strategy, the purpose, size, and cost of the financing will be analysed.
3) Analyse the effect of the financing strategy in each round financing in each company. Based on the work of Maltz et al. in 2003, the performance of these companies will be measured through five domains; they are financial, market, process, people, and future. Bicycle-sharing companies, as high tech small firms, will be analysed on the criteria from baseline, high technology firms, and small firms (see Appendix 1).

4. DATA

The data, especially the financing data, used in this paper mainly come from the official websites of the three bicycle-sharing companies and Investor-Relations website. Some data also derived from the interviews of the founders of the bicycle-sharing companies which were made by the news website. All of these websites mentioned above are listed in Appendix 2.

5. ANALYSIS

5.1 Current Situation of the Industry

Based on the information from the National Enterprise Credit Information Disclosure System in China, there are more than 50 bicycle-sharing companies still operating at the end of May 2018. To get a better understanding of the external environment of the industry, a PESTEL analysis will be conducted.

Political: For many years, Chinese government concentrate on developing public transport. The NO. 64 document of the state council in 2012 express the responsibility for local government to develop and monitor public transportation (State Council, 2012). As a new mode of public transportation, sharing bicycles are undoubtedly in line with the policy requirements and are strongly supported by the government. Local governments have had a positive attitude towards bicycle-sharing companies. Many city governments like Shenzhen and Shanghai have issued some new policies to help the management and development of bicycle sharing. During the end of 2016 and the start of 2017, the bicycle-sharing industry developed rapidly with the support from governments. However, with the growth of the industry, the attitude of the government has gradually changed. The increasing number of sharing bicycles in cities has caused difficulties in environmental management. At the same time, the bicycles that park at will also cause a certain degree of the safety hazard. Many city governments published regulations to forbid putting new bicycles on the market. Other city governments established more strict policies to regularise both companies and customers' behaviours. Until 2018, all regions have relatively well-developed policies for the bicycle-sharing industry.

Economic: The latest data that can be found is from the year 2016. In Appendix 1, Figure 2 that states the GDP and its increase rate could be found. In the figure, the columns mean the GDP for the year (in 100 million) and the points indicate the increase rate of GDP. As can be seen from the figure, the GDP grows sustainably in the decade of 2007-2016. Though the increase rate of GDP decline, it still around 6%. It can be predicted that the GDP in 2017 will still grow. The consumer price index is about 2% YoY, and the unemployment rate in the city is about 4.0% (National Data, 2017).

Social: According to industry report 2017 (iResearch, 2017), the core users of sharing bicycles are the young- and middle-aged people with high education level (Bachelor degree or above). More than half of them have the income of over 8000 CNY every month, and 56.2% of all users would sport over 1 hour per day.

Technology: GPS (Global Positioning System) intelligent lock is the core technology that the sharing bicycles rely on. That helps the users find the bicycles around them using their mobiles. GPS is known since 1995, and it provides accurate, reliable location and time information to anyone equipped with a GPS receiver. BeiDou Navigation Satellite System (BGS), the system developed by China, gives more precise and accurate time and positioning data of the bicycles.

Environmental: With the rapid development of the economy, environmental problems are becoming more and more serious. In 2016, Beijing's air quality failed to meet the standard in 45.9% time of the year. Controlling air pollution has become an urgent problem for both government and citizens. Public transport is a useful travel method that can help to reduce the use of cars thus reduce the emission. However, the long distance from public transport station to people's destination stop many of the public using public transport. Sharing bicycles help to deal with that problem, and more people are encouraged. What need to be taken care of is the possible pollution that sharing bicycles could bring. With increasing number of sharing bicycles, more and more bicycles that were broken and abandoned. That has a negative impact on the environment.

Law: The laws in China do not necessarily restrict the development of the bicycle-sharing industry. However, due to national security concerns, the use of geographic information is restricted to entities that obtain a special authorisation (NASG,2002). While the core technology that is used for sharing bicycles are GPS, companies should take more cares when they use the information.

5.2 Causes and Effects of Financing Strategy

5.2.1 Beijing Bailok Technology co. LTD

Founded in 2014, Beijing Bailok Technology co. LTD (use its product's name 'Ofo' in the following of the paper) is a new IT company operating through the platform of sharing. It first launched in June 2015 in Peking University. Since then, it has connected 10 million of sharing bicycles and provided over 4 billion trips to 200 million users in over 20 countries (GentlemanZ, 2017; Finance Net, 2017). The company has already raised capital many times for its survival and growth. More details about the financing can be found in Appendix 3 Table 1.

5.2.1.1 *Angel investment*

The first financing of Ofo happened in March 2015, three months before the company was operated in the market. At that time, Ofo was in its entrepreneurial stage. The company has an idea about the business, but not really clear. It is still uncertain whether the company will gain profit in the future. Seed funding or angel investment could be the best choice for the company. In 2015, the Chinese government proposed to support angel investment to help entrepreneurs reduce financing difficulties, survival difficulties and other obstacles (Useit, 2015). According to Useit (2015), there were 809 institutional angel investments happened in China in the first half of 2015, involving an investment amount of about 743 million USD. The number of investment cases and the amount of investment increased by 126.6% and 184.1% respectively. Dai, the founder of Ofo, thought it should be easy for the company to find angel investment in the period that angel investment is booming (Lieyun, 2017). However, the company failed to raise capital. Bicycle-sharing is a new business, and the investors found it too risky to invest in. Though there are many angel investment foundations in the environment, Ofo found it difficult to raise capital from them. In the end, the company raised money from Will Hunting capital, the only institution that would like to invest in them. The exact amount of the investment was not disclosed. But according to an interview with Dai, the amount is around 20 million CNY (Lieyun, 2017). It is quite a small amount since other companies usually get approximately 100 million CNY at that time. But Ofo has no other choice.

Angel investment brings highly positive impacts on Ofo's performance. After raising money, the performance on financial and future domains improved a lot. On financial perspective, the cash flow increased as well as the sales. With the obtained money, the company bought two thousand bicycles and put them on the market. Ofo began to receive revenue. Only one month after Ofo operated, the daily orders exceeded 1000 times (Tian, 2017), and at the end of December 2016, the order exceeded 20 thousand times (New top 100, 2016). However, the initial cost of the business is much larger than the revenue, so the company got negative profit. For the future perspective, the core team had a clear framework and goal for the future after operating on the market. The team developed a strategic plan to built a platform for bicycle-sharing. Ofo was the only bicycle-sharing company in its target market (Peking University) at that time, it can say that the company hold 100% market share in 2015.

5.2.1.2 Pre-A, A & A+ round

With the A round financing (include pre-A, A and A+ round), Ofo tried to use the capital to expand the market. At the beginning of the company established, their service only targeted the students and employees at Peking University. The service that Ofo provided needs an initial investment of purchasing bicycles. So when the company wanted to expand their business to other universities, they had to buy new bicycles. That is the reason why the company wants to raise capital and also the reason why investors do not want to invest. The future of the industry still unclear. It seems impossible for the company to meet the criteria for debt financing. According to Lieyun (2017), investors refused to lend money to Ofo. In the end, the company got the money at the cost of some shares. Equity financing could still be a good choice for the company even some parties would like to offer loans to the company because the company did not need to pay interests. For a company that still not gain profit, it may face the risk that associated with cash flow problems that could happen in debt financing.

With the capital, Ofo expanded the market to more than 20 universities in Beijing (New top 100, 2016). However, the performance of the company did not increase and even decreased in some perspective. In April 2016, the orders remained 20 thousand times. It is unusual since Ofo entered more markets than before and the number of orders should go up. On financial perspectives, with almost the same number of orders, the revenue didn't change. For market perspective, the customer retention rate decreased. Ofo tried to analyse the reason. They found out that they have tried to use the limited capital to expand too many markets. To do so, they have to control the number of the bicycles at each school to a certain number. That means the number of bicycles in each university decreased while the total number increased. Before the company expanded their market, there were more than 2000 bicycles in the university. After Ofo entered more universities, there were only 100 bicycles[10] at each university. With fewer bicycles, customers find it difficult to get a bicycle when necessary. So many of them, especially the new customers, not use the bicycles anymore. The performance on future perspective is the only perspective that increased. The company invested a lot to expand the market, but that led to some negative impacts to the company as mentioned. After one month, Ofo changed their strategy to get out of the mess. The number of orders increased to 80 thousand in May after they changed the strategy and reached the peak on 17th May with 100 thousand orders.

5.2.1.3 B & C round

During the rest of 2016, Ofo finished B & C round financing. The purpose of the financing was not only for the expanding of the market but also for research and development. During that period, Ofo grew rapidly and entered its collectivity stage. The company tried to develop their bicycles and intelligent locks. On November 17, 2016, ofo officially started to providing service in the city instead of on-campus only, and in December of the same year, the company's daily orders exceeded 1.5 million CNY (Ofo, 2018). Seeing the success of Ofo, more investors would like to enter the industry. This is the first time that Ofo could choose which kind of financing strategies and which investors the company would like to adopt. Ofo still used equity financing because outside investors could have some specialised knowledge and they could help to explore and execute growth ideas. That is also the reason why the company selected MatrixPartners China and DiDi trip as the leading investors in B & C round financing. MatrixPartners China as a professional investment institution gave Ofo a lot of advice on the financial model, return and assets, and deposit (Nicholas, 2016) while DiDi travel has the similar operating model and future vision with Ofo that provided great help for its future development (Yuanling, 2016).

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[10] The data is drawn from the maximum marginal benefit.

Rapid growth in the company did not mean it began to profit. The impacts of B & C round financing mostly on people and future perspectives. As mentioned before, the two leading investors, Matrix Partners China and DiDi travel provided a lot of help on Ofo's future development by providing help on both finance and operating model of the company. The money that the company obtained was invested in developing its intelligent lock and bicycles and expanding new markets. At the end of the year 2016, there were more than 20 million sharing-bicycle users in the industry and Ofo had about 51.2% of the market share[11] (BDR, 2017). Till the end of January 2017, Ofo entered more than 50 cities in China, most of them are first and second-tier cities. To develop the intelligent lock and bicycles, Ofo tried to attract many specialists. Moreover, they also encourage the employees to raise ideas to improve the business. For example, there are about seven types of bicycles that suit different kinds of needs were developed based on the innovative ideas.

5.2.1.4 D & D+ round

Before D round financing, the company entered the elaboration-of-structure stage. The company tried to search for new products and growth opportunities to maintain expansion. Ofo has developed its first generation intelligent lock and teamed up with China Telecom and Huawei to create the world's first internet-based sharing bicycles (Ofo, 2018). The breakthrough in technology and the leading position in the industry gave potential investors more confidence in the company. There might be three reasons that the company still use equity financing. First is the interest fees that related to debt financing. Although the company grow rapidly, it hasn't made any profit yet. That means the increased revenue cannot cover the cost of R&D and buying new bicycles. It is still too risky for Ofo to do debt financing. Second reason is that debt financing could hurt possible future investment. More details will be discussed later in the round that Ofo took debt financing. The last possible reason is the willingness of the current shareholders. As can be found in Appendix 3 Table 1, the main investors of D round financing have already invested in the company before. And these investors have more or less some relationships with DiDi travel. Some are its shareholders, some have a close relationship with its shareholders. They have mutual interests and D round financing could be seen as their attempt to increase their power in Ofo. According to Dai, the founder of the company, Ofo is hesitant about whether to do D round financing, but current shareholders were keen to buy more shares (Li, 2017). This could be the main reason because in the D+ round, a new investor, Ant Financial Group, a subsidiary of Alibaba, entered the company. There is a tricky relationship between DiDi travel and Alibaba. The relationship between them is more like the relationship between Google and Facebook. There are not direct competition between them in their core business, but some indirect competitions do exist. However, the relation between DiDi travel and Alibaba is more complicated because Alibaba holds part of DiDi travel's equity. Whatever the relationship between DiDi travel and Alibaba, in my opinion, the financing of Ofo this time seems more like the choice made by the entrepreneurial team to dilute DiDi travel's power in the board. After several rounds financing, DiDi travel has already held 30% of Ofo's equity. It is in the second position of the owners, only 6% less than the founder of the company, Dai, who has the most shares of the company. According to the information from the National Enterprise Credit Information Disclosure System in China, there were nine board members in the company. Five of them are co-founders, two from DiDi travel and two from other invest institutions. Only Dai and DiDi travel have veto power. The founder team need to dilute the power of DiDi travel if they want to control the company fully. Involved a new investor in the company can help with that.

With the money obtained, Ofo tried to expand its market. In order to retain current customers and attract new customers, Ofo had a price war with Mobike (another leader in the industry). The strategy of Ofo was providing different packages for customers. The cheapest one is 1 CNY for one-month free riding. That helped to keep customers but also drove the revenue to an extremely low level. The financial performance of the company became worse after applying the strategy. It could say that the competition drives the low performance. However, without the money obtained, Ofo does not have the ability to compete with Mobike by lowering the price of service. The market performance of Ofo became better than before. More customers are willing to use its service. According to Industry report 2017 Q2 (2017), the ring growth rates of the number of active users in February, March and April in 2017 were around 100%. However, these customers were not loyal to the company, and they will turn to use other companies' service if the service from these companies were cheaper. At the end of December 2017, Ofo stopped selling the package of 1 CNY for one-month free riding and according to Jiguang (2018), the daily active users of Ofo in March 2018 is 70 thousand less than that in December 2017 and the ring growth rate is -6.4%. The decreasing number of users could be driven by the cancellation of providing the package. For future perspective, it continues expands its market and set up the strategy of expanding its overseas market.

5.2.1.5 E and later round

Back to round C, the fast-growing Ofo had attracted many investors. For Ofo, the focus of E round financing was no longer how to attract more investors, but how to balance existing shareholder structure. Alibaba as the leading investor tried to get more shares and DiDi travel continued to follow up. In the second half of 2017, the Chinese market was getting saturated, and many city governments established regulations to forbid new bicycles to the markets because of governance and environmental pressure.

Ofo targeted at the overseas market at that time. With the capital raised from E round, Ofo entered more than ten countries around the world (Ofo, 2018). Ofo provided more than 10 million cycling services for overseas markets (GentlemanZ, 2017) and the performance on market perspective increased. Other perspective does not change a lot compared with the situation before capital obtained.

The financing that happened on 04th March 2018 is a special one to Ofo. Because it is the only one that cannot be found on Ofo's website. Strictly speaking, the subject of this debt financing is not Ofo, but one of its subsidiaries, the Shanghai Aofohesheng Network Technology LTD (Hesheng in the following paper). It is a company that founded in October 2017. Ofo transferred all the bicycles in the company to Hesheng and then borrowed money from Alibaba in the name of Hesheng. So, there are two questions need to be answered. First, why Ofo chose to raise capital through debt financing instead of equity financing, and second, why the company did not borrow money directly? The first question can be easily answered by the conflicts between DiDi travel and Alibaba. In the beginning, Ofo would like to do equity financing, and Alibaba wants to

[11] The market share is calculated by the number of company's users divided by the number of industry's users. If one person uses several companies' services, he/she will be counted many times.

invest some money. However, the proposal was rejected by the board of the company because DiDi travel as the main equity owner of the company refused to sell more shares to Alibaba (CBN, 2018). This is more like the interests conflict between shareholders, in this case, DiDi travel and Alibaba. The disagreement between these two parties hindered Ofo's financing activity. However, Ofo badly needed a lot of money to help it out of its current predicament. At the end of 2017 and the beginning of 2018, Ofo faced with a lot of troubles. Besides the competition with Mobike that was mentioned before, the high damage rate for bicycles was also a problem. The company needed to replace the broken bicycles with new bicycles. That required money to support. With higher cost and less revenue, Ofo faced with the risk that capital chain might be broken. To solve the problem, Ofo chose to borrow money from Alibaba because the mortgage is the only way to raise money without the signature from DiDi travel (Luo, 2018).

For the second question, the answer is related to the disadvantages of debt financing. As I mentioned many times before, with many loans, companies might be seen as highly risky by potential equity investors, and that limits future equity financing opportunities for these companies. There has been only one case in the IT-related industry in recent years that funds have been raised through debt financing using the movable property as the collateral. That debt financing is done by Smartisan (Luo, 2018). At that time, Smartisan is facing with bankrupt. It can be said that until the last moment, the company will not use mortgage debt financing (Luo, 2018). The negative impact of debt financing not only comes from the investors' perspective but also customers' perspective. Customers have deposited some money in the company, and they may choose to withdraw the money if they feel that the company will close soon. Debt financing gives customers a signal that the company has the problem on the capital chain and their money may never come back. If customers lose confidence in the company, a lot of them will withdraw the deposit at the same time, which exacerbated the company's crisis. To avoid the above situation, Ofo used the name of its subsidiary to borrow money.

The E 2-1 round financing happened very soon after debt financing. This time Ofo chose the combination of equity financing and debt financing. Only nine days after obtaining debt financing, the internal and external environment of Ofo did not change a lot. The main cause of this round financing is that it will take some time for debt financing to be fully implemented, but the capital problem of Ofo has to be solved urgently (Sina Tech, 2018). The debt financing and E 2-1 round financing happened when the company were in decline stage. The capital that was raised helped Ofo survived and re-enter the formalization-and-control stage.

It is tough to distinguish whether the impact is driven by which round financing because the first debt financing was not yet completed when the E 2-1 round financing happened. However, what can be intercepted is that two times financing, especially the debt financing, helped Ofo out of breaking the capital chain. However, they bring many negative effects on the company's performance. The strongest impact was on market perspective. Ofo used its bicycles as collateral to borrow money made the customers thought that the company is facing some financial problems. At that time, many customers decided not to use Ofo's service anymore. Also, with many people withdraw their deposits, the financial situation of Ofo became worse. It is reported that Ofo owed about 1.2 billion CNY to its suppliers, nearly 300 million CNY to urban operation and maintenance fee, and there were less than 500 million CNY on its book account (Securities Daily, 2018). The performance of the company was much lower than before.

5.2.2 Guangzhou Yue Riding Info. Tech. co. LTD

Guangzhou Yue riding Info. Tech. co. LTD (Ming in the following paper) might be the fastest bicycle-sharing company on the speed of financing. It obtained three rounds financing with more than 100 million CNY within 25 days. The mission of the company and the role of the managers and employees were clear and well defined. Many investors were willing to invest money in the industry during the rapid growth period of bike-sharing in September and October 2016. It was relatively easy for companies to raise capital at that time compared with the time when the industry was just growing. However, it is still not easy to get three deals within less than a month. As a newly established company, Ming did not have the problem of capital chain broken. The purpose of these times financing was raising capital for R&D and market expansion. The rapid pace of financing reflected Ming's ambition for the future of the company. More details about the financing can be found in Appendix 3 Table 2.

These rounds of financing happened in the entrepreneurial stage of the business life-cycle and seemed to bring several positive impacts on Ming's performance. Market and future perspectives are two perspectives that were impacted mostly. The rapid pace of financing has caused a stir online. It can be said that at the beginning of its establishment, Ming has received a lot of attention. Potential customers noticed that there is a new bicycle-sharing brand on the market. The brand awareness increased. On future perspective, Ming had a strategy that develops medium cost products and releases in large scale. This strategy helped the company quickly capture the market with low-cost vehicles. But releasing a large number of bicycles in a lot of cities required capital to support. A large amount of money obtained from the financing helps Ming implement the strategic plan. Cronus as the giant in the bicycle producing industry has resources and relationships. It helped Ming to establish its supply chain. While the strategy of Ming is to outsourcing the bicycle producing, well-functioned supply chain helped the company to perform well on process perspective, especially the time to market with new product.

However, the A round financing had a potential negative impact on the company that did not appear until half-year later. In October 2017, Cronus announced that the shares of Ming they held were repurchased by Ming in June, and Cronus was no more the shareholder of Ming. According to Cronus's CEO, Deng, the reason Cronus decided to sell the shares was that he did not notice that the different valuation model between sharing bikes and traditional industry. The advantages of Cronus cannot be applied in the bicycle-sharing industry (STCN, 2017). The action of repurchasing shares caused a problem for Ming's financial. What's more, just before Cronus announced the repurchase, a bicycle-sharing company closed. That is the 7th companies that were closed in 2017. Consumers are losing their trusts on bicycle-sharing companies. Many consumers tried to withdraw their deposit. The customer retention rate decreased. With the problem of financing, Ming cannot pay all the consumer money back in time. This has caused panic among consumers. More and more people chose to refund, which further increases Ming's financial pressure. Negative news about Ming had continued to increase since the end of 2017, and the company was listed on the catalogue of enterprises with irregular operations. The company declared bankruptcy on May 18, 2018, and three days later, it published an apology for not being able to return the deposit.

5.2.3 Yongan Low-carbon Future Tech. co. LTD

Different from other two companies, Yongan Low-carbon Future Technology co. LTD (Youon LF in the following paper) is not a new company. It is a subsidiary of Changzhou Youon Public Bicycle System Co. LTD (Youon in the following paper). The subsidiary is responsible for bicycle-sharing business while the parent company focused on selling and operating public bicycles [12]. As mentioned before, bicycle-sharing industry grew rapidly in the second half of 2016 and the beginning of 2017, and many individuals and companies would like to enter this industry. Youon is one of them. In Appendix 3 Table 3, the financing information that related to Youon LF are stated. Both financing rounds have happened in the entrepreneurial stage of the business life-cycle.

5.2.3.1 *Internal financing*

On 20-12-2016, Youon formally entered the bicycle-sharing industry by investing 10 million CNY to establish a subsidiary named Youon LF. The money was gathered from inside of Youon. Many reasons related to the choice of internal financing. First and the most important one is that Youon can afford internal financing. While internal sources are used to do an expansion, it is easy for the company to face cash flow problem on its daily operation if the company does not have the ability to do internal financing. The second reason is about the speed of capital raising. There was a fierce competition within the industry, the earlier the company entered, the greater the advantages, such as government subsidies, market share, etc., the company could get. Since internal financing is quicker than other types of financing and capital is immediately available (Hubbard, Kashyap, & Whited, 1995), it could be seen as a good choice for Youon. The third reason is that ownership of the company will not be diluted. With the money invested by the company itself, no external investors entered and the company are still fully controlled by the current shareholders. Also, according to pecking order theory, internal financing is the cheapest financing method under the unperfected market and it is the one that company preferred (Myers & Majluf, 1984). Since there is information asymmetric, internal financing brings less negative effects on the company than other kinds of financing method. The last reason is not about the advantages of internal financing but the advantages of Youon itself. The company has a lot of experience in operating public bicycles, which are very similar to sharing bicycles. The company can be guided by themselves, and does not need the help from institutional investors and does equity financing like some startups.

Unlike Ofo, which has developed aggressively in big cities such as Beijing, Shanghai and Guangzhou, Youon LF started out in small and medium-sized cities. The strategy of differentiation competition gave Youon LF the opportunity to develop in this industry. To develop the bicycle-sharing business, Youon developed an app that can use both public bicycles and sharing bicycles (Youon, 2018). That helped the Youon LF to get customers that are transferred from public bicycle users. Till the end of 2016, Youon has already undertaken public sharing projects in more than 250 cities around the world (Youon, 2018). The high popularity among residents in these cities and the general app gave Youon LF great opportunities to grow and it entered the second class of the industry. According to Jiguang data (2017), the market penetration rate of Youon LF continued growing and achieved 0.78% in June, in the third position of all bicycle-sharing companies.

5.2.3.2 A round Financing

On 18th September 2017, Youon LF got 400 million CNY through A round financing. The purpose of this round financing was to maintain their market share and increased their competitive advantages in the industry (Gao, 2017). Youon LF believes that sharing bicycles as part of the city’s green transport system are in high demand and also with huge potential opportunities. So they wanted to continue to invest. However, by the end of July 2017, the net assets of Youon LF were -3.83 million CNY. There was no capital for the company to continue. That is the reason they would like to find external financing. In fact, one of these A round investors, Shanghai Yunxin, was planned to participate in the A round of financing of Youon LF as early as February of this year. Youon LF and Shanghai Yunxin have reached initial investment agreement at that time. However, the investment postponed due to the IPO plan of Youon, the parent company of Youon LF. The parent company of Shanghai Yunxin is Alibaba, who has also invested in Ofo. Alibaba’s online payment platform, Alipay, can be combined with Youon LF's bicycle-sharing service, and its huge user group has brought many potential customers to Youon LF. That could be the reason why Youon LF chose Shanghai Yunxin as the leading investor at that time.

The main impact of the financing on the company was the change in the ownership structure. After investing in Youon LF, Shanghai Yunxin held 30.53% of the shares while Youon held 38.17% of the shares. Alibaba (Shanghai Yunxin) was keen to invest in bicycle-sharing companies. It pushed Youon LF to acquire Hello Bikes (in the second class of the industry). After the acquisition, Youon LF’s competitiveness increased a lot. Though it is still not possible for Youon LF to compete Ofo and Mobike, the two biggest companies which together own 92.6% of market share of the industry, Youon held most of the rest market shares. However, the market performance of Youon LF’s own service was not improved. Actually, the market penetration rate of Youon LF decreased to 0.45% at the end of 2017. The monthly active users decreased by nearly one million, from 3.5 million in October to 2.6 million in December (Jiguang, 2017; Jiguang, 2018). But Hello bikes performed quite well after the acquisition. Its monthly active users increased to 4.6 million from 4.1 million in three months, and the market penetration rate increased from 0.62% to 0.7%, which led some positive effect on Youon LF’ performance.

6. DISCUSSION

After analysing the financing activities of three bicycle-sharing companies, some results have been found. In Table 4, there is a comparison of financing strategies rounds and their impacts on three companies according to the life-cycle stage of the companies. In the first several rounds financing of Ofo (when the company is in entrepreneurial, collectivity and elaboration-of-structure stage) and the whole financing process of Ming, both of these two companies used equity. Two reasons drive the choice. First is the attitude of investors. Some investors only agree to invest in the company if they can get some shares (e.g. entrepreneurial stage of Ofo). The second reason is that external investors can bring advantages (e.g. Special knowledge, advice on financial models and so on). Debt financing in decline stage happened when current shareholders refuse to do equity financing. That only happened in Ofo and not widely applicable. In that time, the company faced with the risk of breaking the capital chain and closing. This and following rounds financing helped the company survival and re-entered elaboration-of-structure stage. Internal financing is not suitable

[12] Selling public bicycles means to sell equipment and debugging systems to customers (usually local governments) and operating public bicycles means to provide the customers with the operation and management services after sales.

for startups. Youon LF is the only company in the industry that uses that strategy because its parent company is large enough to take the risk. If making a comparison between these three companies, it can be found that Ofo is the only one which has a difficult time raising capital at the beginning of its business. That has happened because Ofo is the pioneer of the industry. At that time, bicycle sharing was a new concept, and the uncertainty of the industry is high. Investors do not want to take the risk of suffering a loss. However, when Ming and Youon LF entered the industry, the business model and foresight of the industry were quite clear. Investors saw the potential growth opportunities for the industry, and they would like to invest in. Ming can get three rounds financing within 25 days is an excellent example in the change of investors' attitude.

Table 4. Comparison of three companies

<table>
<tr><td>Life-cycle</td><td>Ofo</td><td>Ming</td><td>Youon YF</td><td>Impact</td></tr>
<tr><td>Entrepreneurial</td><td>Angel, Pre-A, A and A+ round</td><td>Angel, A & B round</td><td>Internal financing</td><td rowspan="2">1. Increasing market performance of attracting more customers and future performance of exploring new market.
2. Some potential negative impacts that brought by investors</td></tr>
<tr><td>Collectivity</td><td>B & C round</td><td></td><td>A round</td></tr>
<tr><td>Formalization-and-control</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Elaboration-of-structure</td><td>D, D+ & E round</td><td></td><td></td><td>1. Increasing market performance of attracting more customers and future performance of exploring new market.
2. Supporting the price war which leads the revenue to an extremely low level that influence company's performance on performance
3. Some potential negative impacts that brought by investors</td></tr>
<tr><td>Decline</td><td>Debt financing and E 2-1 round</td><td></td><td></td><td>1. Helping the company survived.
2. Negative impacts of the company on both investors' and customers' perspective</td></tr>
</table>

The impact of the financing rounds on the companies in their entrepreneurial, collectivity and elaboration-of-structure stage on the companies usually bring many positive impacts along with negative impacts. Mostly, the performance of the company increasing in market perspective like increasing market share and future perspective like investing in new market development. Negative impacts of the financing rounds come from the investors. That can be divided into two types. The first type is the conflict between foundation team (also the biggest shareholders) and other shareholders. Another type is about the investor itself (like what happened in Ming's A round financing). The financing of the company in decline stage helping the company survived. However, it brought many negative impacts on the company like losing investors' confidence in the future performance of the company and losing customers.

7. CONCLUSION AND LIMITATION

Based on the analysis of this paper, it can be concluded that the companies' performance is one factor that can influence the choice of financing strategy and financing strategy can influence companies' performance in turn. However, company's performance does not work solely to influence the choice of financing strategies. The advantages and disadvantages of the financing strategies along with policy, industry development and technology growth contribute the choice. The impacts of the financing strategies on company' performance usually focus on market perspective like market share and future perspectives like new market development. Companies used the capital to explore new market and to develop new products, which influence the future perspective of companies' performance. The social awareness of the companies increased after financing, and the market perspective is influenced.

There are some limitations to this research. First of all, the samples of some financing strategies are too small. For debt financing and internal financing, each of them only happened once in the industry. Without other samples for comparative analysis, the result may be biased and cannot be widely applied. The second limitation is that lack of data. Most financings occurred before the company maturity or could say, enter the elaboration-of-structure stage. That has happened because it is only three years since the first bicycle-sharing company established and most of the companies entered the industry in the second half of the year 2016 and the first half of the year 2017. They are not fully developed. Causes and effects of financing activities could change with the development of the companies. Also, even for the financing rounds I analysed, still some information is missing. For example, the size of the capital that the company raised in some round are non-disclosed and the market share of some companies in the year 2017 are missing. What's more, the case study analysed the information from three sample companies in the industry, external validity or generalizability of this study becomes an issue. Large-N studies should be performed to tested whether the selected companies are outliers in all cases.

For future research, I would like to suggest that more studies should be done on the concept causes and effect of company's financing strategies in different business life-cycle.

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10. APPENDIX 1 : FIGURES

	Financial	Market/ Customer	Process	People Development	Preparing for the Future
Baseline	Sales	Customer Satisfaction index	Time to market with new products/svcs	Retention of top employees	Depth and quality of strategic planning
	Profit margin	Customer Retention rate	Quality of NPD & PM processes	Quality of leadership development	Anticipating/preparii for unexpected changes in external environment
	Revenue growth	Service quality			
High Technology Firms (n = 95)		+ customer benefits from products/services	+ cycle time	+ quality of prof. devel. + employee skills training	+ investment in R&D (% of sales)
Low Technology Firms (n = 85)		+ responsiveness		+ encourage employees to suggest/ test new ideas	
Small Firms (n = 108)	+ cash flow			+ encourage employees to suggest/ test new ideas	+ investment in new mkt. development
Large Firms (n = 71)	+ EPS + stock price	+ market share		+ employee skills training + quality of corporate culture development	+ investment in R&D (% of sales)
Firms Product Life Cycle < 3 years (n = 66)			+ cycle time		
Firms Product Life Cycle > 3 years (n = 112)		+ responsiveness	+ quantity & depth of standardized processes	+ employee skills training	+ investment in new technology

Figure 1 Summary of suggested success measures for different firm types (Maltz et al., 2003)

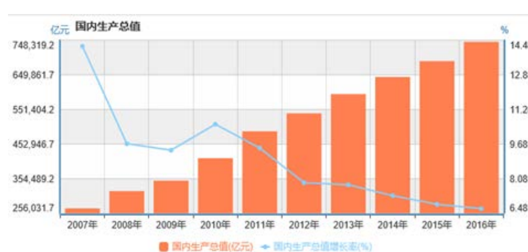

Figure 2 GDP in China (National Data, 2017)

APPENDIX 2： WEBSITE FOR DATA COLLECTION

1) Website of the Bicycle-sharing companies

Beijing Bailok technology co. LTD (Ofo): www.ofo.so/

Guangzhou Yue riding information technology co. LTD (Ming): www.yueqiquan.com/ (closed)

Changzhou Youon Pubilic Bicycle System Co. LTD (Youon): www.ibike668.com/

2) Investment Relations Websites

Qixinbao: www.qixin.com/

ITjuzi: www.itjuzi.com/

Tourongjie: www.trjcn.com/

Chuangyebang: www.cyzone.cn/

Touzijie: www.pedaily.cn/

3) Websites that Interviewed Bicycle-sharing Companies Founders:

Sina Tech: www.tech.sina.com.cn/
Sina Finance: www.finance.sina.com.cn/
Lieyun: www.lieyunwang.com/
36kr: www.36kr.com/
Iheima: www.iheima.com/
Huxiu: www.huxiu.com/

APPENDIX 3: TABLES OF FINANCING STRATEGIS IN THREE COMPANIES

Table 1. Details of the financing of Ofo

Date	Investor	Size	Method
17-03-2015	Will hunting capital	Several million CNY	Equity financing (Angel round)
22-12-2015	Hongdao capital Will hunting capital	9 million CNY	Equity financing (Pre – A round)
01-02-2016	GSR venture Hongdao capital	15 million CNY	Equity financing (A round)
02-08-2016	Zhen fund Gang Wang (Private angel investor)	10 million CNY	Equity financing (A+ round)
02-09-2016	MatrixPartners China GSR venture Will hunting capital	Tens of millions of USD	Equity financing (B round)
26-09-2016	DiDi travel	Tens of millions of USD	Equity financing (B+ round)
10-10-2016	DiDi travel Coatue management Xiaomi technology Shunwei capital Citic PE Yuanjing capital MatrixPartners China GSR venture Yuri Milner	130 million USD	Equity financing (C round)
01-03-2017	DST DiDi travel Coatue management Citic PE MatrixPartners China Atomico New China union	450 million USD	Equity financing (D round)
22-04-2017	Ant Financial Group	Hundreds of millions of USD	Equity financing (D+ round)
06-07-2017	Alibaba Hony capital Citic PE DiDi travel DST	700 million USD	Equity financing (E round)
04-03-2018	Alibaba	1.77 billion CNY	Debt financing
13-03-2018	Alibaba Legend capital Haofeng group TRW capital Ant Financial Group	866 million USD	Debt and Equity financing (E 2-1 round)

Table 2. Details of the financing of Ming

Date	Investor	Size	Method
27-09-2016	Lianchuang yongxuan	Tens of millions of CNY	Equity financing (Angel round)
08-10-2016	Cronus	100 million CNY	Equity financing (A round)
20-10-2016	Undisclosed	Undisclosed	Equity financing (B round)

Table 3. Details of the financing of Youon

Date	Investor	Size	Method
20-12-2016	Changzhou Youon Pubilic-Bicycle System Co., Ltd	10 million CNY	Internal financing
18-09-2017	Shanghai Yunxin Shenzhen Venture Shanghai Lingji	810 million CNY	Equity financing (A round)