

Institutional Logics and Organizational Strategies: Case Studies of Five Bike-sharing Operators in China

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ABSTRACT

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This exploratory study investigates how managers of five China's bike-sharing program (PBS) operators understand the mission(s) of their organizations, how they perceive legitimacy, and how they seek to overcome organization challenges. More specifically, the study focus on two research questions: (1) How do PBS operation organizations understand themselves? (2) What are PBS' organizational strategies towards multiple demands? Recently, the public and academia have raised concerns about PBS programs' impact (Waldmeir, 2014; Alcoba, 2012). PBS operators also report operation challenge such as legitimacy issues and business model sustainability. The study adopts the "institutional logics perspective" (Thornton, Ocasio & Lounsbury, 2012) and analyzes the institutional logics suggested from several organizational aspects to understand PBS's organizational nature and strategy. It also compares the differences among the five organizations. The results offer a detailed description of the institutional logics of these operators, as well as some suggestions on PBS management and future institutional studies.

This study helped encourage actors from different areas of the society understand the PBS organizations' nature and strategy, as well as to encourage more studies on hybrid organizations that face conflicting logics and make public projects more sustainable and beneficial to the general public.

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INTRODUCTION

In many cities worldwide, bike-sharing programs have become a popular transport model. According to Fishman and his colleagues' synthesis research, the definition of a contemporary bike-sharing program is:

The provision of bicycles to enable short-term rental from one docking station to another...pricing structures generally encourage short-term rental (for example, the first 30 min ride is free), after which, users are charged on a rising scale. [...] Users are generally required to pay deposit for registration and usage fees. (Fishman, Washington & Haworth, 2013)

Public bike programs are named differently in various geographic locations. And different names may suggest distinct organization natures. For example, it is called "cycle hire" in the UK and "bicycle sharing" in North America (ITDP, 2013). It can be a rental service, a public welfare project, a sharing economy etc. Some Chinese scholars call the Chinese bike share programs as "Public Bicycle System" (Wang, Wei & Tian, 2013). In this study, all bike-sharing programs hereinafter referred to as "PBS" or "PB".

Currently, some cities are seeing continuous development of their public bike program. For example, Guangzhou (China) recently invested US\$20 million to expand the government-owned public bike program (Huang & Wei, 2015); New York's privately-owned Citi Bike is also expected to expand in 2017 (Badger, 2014). However, some people raised doubts towards these programs' impact and their management. In September 2014, one of the articles in Financial Times warned that most China's programs were failing with low user rate and financial struggle (Waldmeir, 2014). Indeed, due to the various actors involved, there can be many other performance indicators and opinions. To understand China PBS's organization nature and strategy more precisely, the study examines how program operators understand their organizations and identify the company strategies facing various expectations.

The study investigates these questions through the perspective of institutional logics. Institutional logics serve as sense-making construct for organizational actors to understand and enact organizational practices (Thornton, Ocasio & Lounsbury, 2012). Thornton and Ocasio (2008) define an institutional logic as socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences. The challenges that many PBS organizations face may result from their attempt to achieve multiple organizational missions. Through the typologies analysis (Doty & Glick, 1994) that relates ideal institutional logics to major organizational aspects (Thornton et al., 2012), one can clarify how different logics are expressed in

organizational practices; also, one can detect the major logics that legitimize PBS programs and organization strategy. Regarding organizational strategy towards multiple logics, research on hybrid organizations has suggested two trends of responses. One trend can be illustrated by Oliver's (1991)'s categorization of five strategic responses, i.e. organizations will adopt various resisting response to conflicting logics, ranging from weak resistance to high resistance as acquiescence, compromise, avoidance, defiance, and manipulation. Other scholars of the more recent trend claim that hybrid organizations can combine elements of different logics as these logics can be complementary to each other (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury, 2011, Pache & Santos, 2013).

So far, many studies focus on PBS technology and system design to increase the user rate. However, very few discuss the institutional complexity of PBS programs in depth and how it can influence the managers as far as the strategy planning and implementation is concerned. Some scholars point out the multi-value of PBS and call for multi-disciplinary studies (Zhang, Zhang, Duan & Bryde, 2014). This study addresses this gap by investigating the societal logics behind PBS's business design, the daily operation, as well as their organizational strategies. It empirically explores five PBS operation organizations in China to find out about their management dilemma and their organization structure to understand their organizational strategies. The analysis focuses on four common logics in hybrid organizations, the logics of "state", "market", "corporation" and "community". The results show that these PBS companies experience multiple logics and they tend to combine some of the logics in their strategy. Meanwhile, they also enact some of Oliver's resisting response towards the conflicting logics. The analysis revealed the major sources of authority in PBS operators. It also shed light on PBS operators' various understanding of their immediate community. The study not only generates more understanding towards hybrid organizations' strategy, it also contributes to the understandings of the four studied institutional logics in China. Lastly, the study concludes with some suggestions for PBS implementation and future studies.

LITERATURE REVIEW

Opportunity and Limitation of PBS in Sustainable Development

Transportation sector is a necessary factor and enabler for economic growth (Shrivastava, 1995). The traditional transit systems create significant environment pollution such as air pollution and land waste, which constraint economic development (Shrivastava, 2005; Fan, 2006). Recently, new urban policies try to overcome urban car dependence and favor public bike share (PBS) as an alternative public transport (Pucher & Buehler, 2012). For an interest in urban management, this paper focuses on urban bike share programs, which are different from smaller programs operating only in small areas such as a university campus or an industrial employment zone. The PBS programs in this study are open to the general public and can benefit the whole city or an administrative district (see Note1).

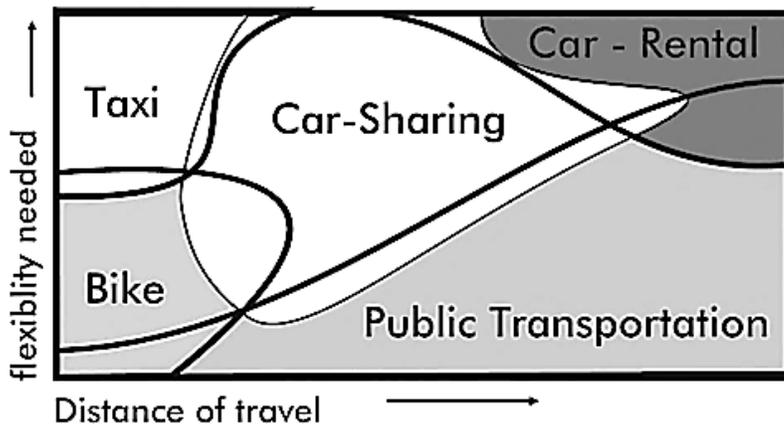
China's municipal governments mentioned their PBS programs as part of the implementation of the national strategy of public transit priority, which was officially announced in 2005 by China's General Office of the State Council and the Ministry of Construction. This policy was mentioned in many government documents afterwards (Zhang et al., 2014). Besides the political context, since 2007, recent technological improvements, such as bike storage and rental reservation, have promoted bike share programs in Europe and Asia. Since then PBS continues to grow across continents. For example, the number of U.S. cities with bike share programs has exploded from 6 to 36 from 2011 to 2014 (Parkes, Marsden, Shaheen & Cohen, 2013; Ainsley O'Connell, 2014). In China, according to The Bike-sharing World Map (monitored by a bike-sharing program consultancy company), there were 235 cities and districts with operating programs, which comprised approximately 747,400 bicycles and 28,000 stations in 2014 (Meddin, 2014).

PBS programs have many advantages, which can contribute to sustainable urban development. Saheer, Guzman and Zhang (2010) acknowledge that a bike-sharing system can be a complement for the urban public transit system, solving the “last mile” problem – when the walking distance is too far between the destination and a bus/metro stop (Saheer et al., 2010). Indeed, “solving the last mile problem” is mentioned in a lot of Chinese media as the benefits and reasoning of implementing PBS. Also, Fishman et al. (2013, p.150) said, “the establishment of bike share programs has prominently enabled cities to demonstrate their commitment to addressing climate change, population health issues, traffic congestion [...] and livability”. In brief, there are numerous and perhaps different reasons that a city adopts PBS.

Nevertheless, PBS has some limitation. Fishman et al. (2013) recognize that, currently, the role of bike-sharing programs in taking-up private car riding is minimal, as indicated in some studies among

London, Washington DC, Dublin, Barcelona, Paris, Beijing and Hangzhou (Midgley, 2011; Tang, Pan & Shen, 2011). The speed and convenience of cycling is limited compared to most other transportation modes including car-sharing. Biking capability is also closely related to factors such as user’s physical health, weather condition, and public infrastructure. With various advantages and disadvantages, different urban transport modes share different positions of urban transit (Schwarz, 1999; please refer to Figure 1 below).

Figure 1 Positioning of several transportation modes in the urban transit



Source: Schwarz, Joachim (1999). Presentation at Car-Free Cities Working Group Seminar, London, England.

Figure 1 shows how biking may be at disadvantage compared to car-sharing’s flexibility and to public transportation’s travel distance. Generally, private cars and car-sharing share higher travel flexibility. If there are too many private cars, drivers not only face high cost of ownership and maintenance but also insufficient parking space. According to one study with online survey of several cycling-friendly cities in Netherlands, people perceive time-saving, flexibility and comfort as important factors for their commute (Heinen, Maat & Van Wee, 2011). Of course, every transportation mode needs infrastructure support, such as bike lanes network and parking accessibility for cyclers. The infrastructure affects the biking speed and flexibility for users. Chinese researchers suggest that biking is an ideal transport mode for travel distances between two kilometers to five kilometers (Li, Chen & Sun, 2009).

Populated cities can no longer rely on private cars for transit need. Too many cars on limited urban roads will slow down the whole traffic (let alone insufficient parking space. In large Chinese cities such as Beijing, Shanghai and Guangzhou, the average time of commute is 42 minutes (Zhang et al., 2014). Indeed, many of these large cities have taken measures to control car traffic. For example, Beijing restricts traffic based on the last digit of license plate numbers: cars carrying the digit assigned that day are not allowed on roads (“Beijing to continue vehicle restriction”, 2010). In this context, PBS can be a great complement to China’s transport system.

PBS Management: Success Factors and Managerial Challenge

Scholars have been showing interest in the success factors of PBS and its contribution to urban transit systems. Most studies define good PBS programs by good performance in infrastructure usage efficiency and market penetration. These two measures are defined in a report from the Institute of Transportation and Development Policy (ITDP) as more than 3.5 daily trips per bike and more than 30 trips per 1,000 residents (Gauthier, Hughes, Kost & Li, 2013; see also Note 2). The report studied 16 Western cities, of which only 7 met the two criteria simultaneously (Gauthier et al., 2013; see also the graph in Appendix 1). However, the PBS performance evaluation may be affected by many factors, such as lack of measurement standard, data unrecorded due to seasonal change or the changes of number of bike for a PBS program.

Most previous research studied program design (e.g., station distribution and density, rental system) and conditional factors (e.g., cycling infrastructure, climate, and cycling culture) to increase PBS users (e.g., Shaheen, Zhang, Martin & Guzman, 2011). Many scholars proposed affordable service pricing and accessible payment methods, flexible bike-redistribution, as well as improving cycling lanes and intersection facilities (e.g., Midgley, 2011; Gauthier et al., 2013; O'Brien, Cheshire & Batty, 2014; Zhao, Deng & Song, 2014). For example, Shaheen and colleagues (2010) proposed five key factors from their analysis of many early bike-sharing worldwide: (1) technology to avoid bicycle theft and vandalism, (2) efficient bicycle redistribution, (3) reliable and efficient information systems, (4) good insurance and liability policies, and (5) prelaunch considerations such as station location analysis and public engagement. Another example is Zhao et al. (2014)'s regression analysis of 60 Chinese PBS programs. They found that both bike-sharing ridership and turnover rates tend to increase according to factors like urban population, government expenditure, and the ratio of members to docking stations. These studies suggest that both PBS design and infrastructure are strong preconditions for success. It is inferred that PBS can reach optimal efficiency when it is implemented in a populated area with high commute need and insufficient public transport facility.

However, previous research has not paid much attention to PBS's operation organizations and their organizational practices. For example, many PBS organizations have struggles regarding business models. In Montreal, the well-known PBS program BIXI, originally owned by the privately-held Public Bike System Company (PBSC), faced financial pressure and eventually had to file bankruptcy in early 2014 due to huge debt ("Bixi owes \$50M", 2014; Alcoba, 2012). BIXI's company PBSC invested heavily in business expansion and software development. Critics said the BIXI Company confused itself as both a business and as a public service. A government auditor revealed that PBSC was badly managed and by law, the Montreal municipality (its major creditor) cannot be involved in commercial activities ("Bixi

owes \$50M”, 2014; Alcoba, 2012). In another example, Washington Post reported that the Citi Bike program of New York City was in need of "rescue" in the form of tens of millions of dollars after ten months of operation; the reporter was concerned that with no city subsidy, the for-profit program would not sustain (Badger, 2014).

Similar cases happen in China. Many PBS operators demanded more government grants and support and some programs failed to continue the business or be called off by the local government. Take Xinfeida PBS in Wuhan as example. The almost-free-of-charge service relied on a private company and some government subsidy to operate (Zhang et al., 2014). The company expanded the system rapidly to 90,000 bikes, yet there was no effective maintenance by the company or sufficient monitoring by the government, three years later it became hard to find a working bike (Zhang et al., 2014).

Multiple stakeholders, including media, city officials, social groups, as well as the public from both the West and the East, question the cost-efficiency and financial sustainability of these PBS programs. For example, the media reported the expensive PBS contract of Fuyang city: a 5-year management contract of 6500 bikes and system costs US\$1,300 per bike, which is much more expensive than regular bikes (Jiang, 2015). Some suggested to see PBS as a public program to complement the public transit while others preferred PBS to stay private so that no tax money would be “wasted” (e.g., Badger, 2014; Alcoba, 2012; Wang et al., 2011).

Some scholars believe that PBS should be operated as not-for-profit and subsidized by local governments (e.g., DeMaio, 2009; Wang, Wei & Tian, 2011). DeMaio (2009) believes that non-profit nature will ensure PBS’s multi-dimensional goal of lessening traffic congestion, enhancing mobile connectivity, and improving public health. Other scholars believe that a suitable market for profit-making business is important for a sustainable bike sharing system, such as the successful case of Hangzhou’s PBS program (e.g., Shaheen et al., 2010; Beroud et al., 2010; for the case of Hangzhou please see Note 6). It may be true that we cannot rely on the governments alone to manage PBS programs. A government or a non-profit unit alone may not have sufficient professional knowledge, power and finance. To make PBS a success, one may consider Banister’s (2008) suggestion for sustainable transportation development: the decision-making and implementation of sustainable mobility should include more voices of the society to obtain public confidence and acceptability.

It is at this context that this study focuses on the different perceptions and expectations that multiple stakeholders have towards PBS. How PBS operation organizations react to the multi-level complexity will be the study subject of this paper. Using the context of China, the following section will look at the different players involved in PBS organization management.

History of PBS Programs Development in China

Yu (2006) summarizes three major institution systems in China's civil society: (1) system of state and its governments, (2) system of corporation and market and (3) system of the rest of the civil groups and non-governmental relations. From Yu's model one can classify PBS actors in these three major societal institutions: (a) governments and their subsidiary units (the administration and subsidiary departments of district levels to the national level), (b) government-controlled companies and private companies (such as equipment designers, manufactures and system operators), (c) civil groups and residents. Their roles can be funding partners, investors, regulators, program operators, supervisors and users/customers.

Chinese PBS saw its formation started in 2007. Several private companies in Beijing expanded their bicycle-rental service into some sharing networks, which became the early PBS programs in China (Zhang et al., 2014). This for-profit service was supported by Beijing's municipal government as part of the transport improvement plan for Beijing's 2008 Olympic Games. However, after the games, the government's support decreased and land use right became hard to acquire for operators. Furthermore, the service charge was not much cheaper than owning a regular private bike, and the small network of docking stations did not provide enough convenience to users. Not long after, few residents used the bikes and many privately-led programs broke down (in cities such as Beijing, Tianjin, Changzhou, Taizhou, Sanya, Chengdu; Wei et al., 2011).

PBS thrived with the development of self-service bike docking technology and government attention (Wei et al., 2011; Zhang et al., 2014). Some district or municipal-level governments initiated cooperation with state-owned companies or private companies to build large urban bike-sharing programs. Most of them proposed a low-fee charge and called the program "Public bike" or "Free bike". As shown in media coverage and government documents, the government's main goal was to improve the public transportation system or to extend public transit. This context aligns with the "non-for-profit" nature of the PBS in China. Almost all of China's PBS programs offer a free ride under one to two hours with very little scaling amount beyond the first hour (US\$3.5-5 per day). Residents need to apply for a permanent pass by registering their resident ID card (or other similar ID cards) and paying a refundable deposit at specific service locations. A few programs had asked for zero deposit, while most PBS programs demand about RMB 300 yuan (US\$50).

At the same time, as the need for PBS facility increased, some companies specialized in manufacturing of PBS bikes and others specialized in the managerial systems and program operation. Some of these companies were originally bike producers, while others emerged from state-owned

companies, universities, or private firms. Some of them invested in R&D such as rental systems and payment methods. Many looked for commercial development and market expansion.

PBS Operators: Various Actors and Objectives in China's PBS

Regarding PBS governance and operation around the world, while a few smaller PBS were operating directly by non-profit organizations or municipality agencies (e.g., transport bureau or other public agency), many programs were being run by state-owned or private companies (Parkes et al., 2013). Many private operators rely on government contract subsidy or commercial revenue, such as billboard advertising. However, due to China's strict regulations of public advertisement, advertising business may not be very profitable in smaller cities as well. Many programs can hardly obtain enough revenue from advertisement (Zhu, 2015).

Wang and colleagues (2011) argue that the "operation mode" of PBS plays a crucial role in the PBS management. They summarized the "operation modes" by categorizing the program's principal leaders' institutions (what institution initiates the PBS program and who controls or operates the program). They suggest that PBS in China is usually part of the public transit requiring government support. Pointing out the failure of the fully-private ownership mode, they believe two modes are efficient: (a) the government-run mode and (b) the public-private-partnership mode. They refer to the first mode as owned by government and operated by a government-owned operator, while the latter mode is a partnership between a government (as principal) and private operators (as contractors), usually via public bidding. Both modes rely on financial subsidies or additional compensation such as billboard revenue and business development.

Some scholars such as Wang et al. (2011) believe that, in China, the government-controlled model ensures the public supervision and reduces transaction cost as well as time and financial cost when applying for land use and coordinating construction. However, the government will face a long-term burden of administrative supervision and financial investment; other models may be worth consideration. Zhang and colleagues (2014) believe that if decision-makers clarify players' roles and provide more value to society, PBS programs' operation can be better. Their study supports previous statements that multiple stakeholders have different interests towards PBS and that PBS programs can provide multiple societal benefits. The responsibility and goal between the program leaders (in the government) and operators should be well defined.

Our study assumes that PBS organizations of different governance modes may have different organizational objectives. Also, multiple rationales may contribute to PBS programs' development as well

as how its immediate society perceives them. PBS operation organizations may be a type of hybrid organizations as they are neither solely a for-profit business nor a pure governmental agency, and can act to support both roles. To explore PBS programs' organizational complexity and multiple expectations, this study tries to understand the two following questions:

Research Question 1: How do PBS operation organizations understand themselves?

Research Question 2: What are PBS' organizational strategies towards multiple demands?

Theoretical Perspective – Institutional Logics

One way to consider the multiple perspectives a PBS organization has is through institutional logics. Institutional logics are socially constructed sets of organizing principals that are comprised of material practices, assumptions, values, and beliefs that shape individuals' cognition and behavior (Thornton et al., 2012). This paper refers to "logic" as "institutional logic".

Institutional studies originate from the social and political studies of power relations between Western institutions and their influence on the society (e.g., Friedland & Alford, 1991; Thornton et al., 2012). Institutional logic is an important concept in organizational studies. Institution scholars believe that societal logics legitimize organizational practices, and that individuals make sense of behaviors through their understandings of the institutional logic principles (Schatzki, 2002: 71-72/2006). The principles represent the logic of action and the sense of self in specific societal sectors and are available for organizations and individuals to elaborate. Some examples of the usage if institutional logic are as followed:

Some scholars have adopted the institutional logic perspective to look at how organizations experience multiple logics. For example, Besharov and Smith (2014) studied contemporary hospitals that share both public health and business logics, and hire both doctors and managerial staff for different daily operations.

Some scholars also used institutional logics to study member agency in hybrid organizations. Battilana and Dorado (2010) suggest, while the development of a hybrid organization's professional field and its internal socialization could make its logics compatible or opposing, organizational members can exercise "some degree of agency": Members can select, interpret, and enact logics. Also, members' social tie with a specific logic may reinforce their behaviors towards this logic, or, stimulate their adoption of a different logic (Greenwood, Raynard, Kodeih, Micelotta & Lounsbury, 2011). For example, managers entered the work integration field with commercial background adopted more non-profit elements in their

organizations than the ones originally from the work integration field (Pache & Santos, 2013). Decision-makers' agency can become the organizational response towards multiple logics.

Organizations' institutional logics may evolve with time and context. The perspective of institutional logics not only detects detailed differences among organizations, but also assists in tracking organizational behaviors and strategies towards multiple logics. In Thornton's (2002) study of higher education publishing industry, the editorial and market logics evolved with the development of publishing business and management professions. Gradually, market logic influenced the governance structure to shift from family-association partnership to corporate control. Additionally, individual's sense-making can modify the meaning and forms of the organizations. Jay's (2013) study of Cambridge Energy Alliance investigates the process as members seek to define success from competing logics, which transforms the organizational goals.

In the earlier section, I recognized that China's PBS actors came from three major institution systems. With multiple society sectors involved, it is possible that various institutional logics influence the PBS organizations. Several institutional logics could be incorporated in PBS organizations. The various stakeholder expectations could challenge PBS managers to create a satisfying strategy. The institutional logic perspective can offer valuable insights into the intra-organizational process as well as inter-organizational interactions (Thornton et al., 2012). The perspective will decouple PBS organizations' complexity and strategies and help us understand how different stakeholders affect PBS programs' organizational practices.

THEORETICAL FRAMEWORK

Typologies Analysis of Institutional Logics

Many scholars have contributed to the theorizing of institutional logics. Friedland and Alford (1991) summarized several major institutions at the macro-societal level (also called “institutional orders”), and each of which accounts for a certain governance system that provides reference and predicts members’ sense-making choices. Based on the work of Friedland and Alford (1991), Thornton et al. (2012) propose an updated model of seven institutional orders, including "family, community, religion, state, market, profession, and corporation."

Thornton et al. (2012) believe that institutional orders are rarely independent of each other in practice. The overlaps of fields, the interaction of intra-organizational practices, as well as the various member backgrounds, are common in many organizations (Besharov & Smith, 2014). Facing this organizational complexity, one can adopt typologies analysis to separate distinct logics. According to Doty and Glick (1994), the typologies analysis is composed of two parts: (a) the description of ideal types and (b) the set of assertions that relate the ideal types to the dependent variable. Each ideal type represents the governance system of an institutional order, and is composed of “distinct elements” (Thornton et al., 2012). Scott (2014) uses “carriers”, a similar term in social-science concept, to indicate four types of elements: symbolic systems, relational systems, activities, and artifacts. Thornton and colleagues (2012) summarize their case studies of several industries to generate a table of institutional logics instantiation (Table 1 as shown below). In their table, the horizontal X-axis represents cultural subsystems (societal orders in the West) whereas the Y-axis represents “the cultural symbols and material practices particular to that order” (p. 54). For example, the state logic’s “Root Metaphor” (symbolic system) would be “State as redistribution mechanism” and its “Sources of Authority” (power relationship system) would be “Bureaucratic domination”.

Table 1 Interinstitutional System Ideal

Y-Axis:	X-Axis: Institutional Orders						
Categories	Family 1	Community 2	Religion 3	State 4	Market 5	Profession 6	Corporation 7
Root Metaphor 1	Family as firm	Common boundary	Temple as bank	State as redistribution mechanism	Transaction	Profession as relational network	Corporation as hierarchy
Sources of Legitimacy 2	Uncondition loyalty	Unity of will Belief in trust & reciprocity	Importance of faith & sacredness in economy & society	Democratic participation	Share price	Personal expertise	Market position of firm
Sources of Authority 3	Patriarchal domination	Commitment to community values & ideology	Priesthood charisma	Bureaucratic domination	Shareholder activism	Professional association	Board of directors Top management
Sources of Identity 4	Family reputation	Emotional connection Ego-satisfaction & reputation	Association with deities	Social & economic class	Faceless	Association with quality of craft Personal reputation	Bureaucratic roles
Basis of Norms 5	Membership in household	Group membership	Membership in congregation	Citizenship in nation	Self-interest	Membership in guild & association	Employment in firm
Basis of Attention 6	Status in household	Personal investment in group	Relation to supernatural	Status of interest group	Status in market	Status in profession	Status in hierarchy
Basis of Strategy 7	Increase family honor	Increase status & honor of members & practices	Increase religious symbolism of natural events	Increase community good	Increase efficiency profit	Increase personal reputation	Increase size & diversification of firm
Informal Control Mechanism 8	Family politics	Visibility of actions	Worship of calling	Backroom politics	Industry analysts	Celebrity professionals	Organization culture
Economic System 9	Family capitalism	Cooperative capitalism	Occidental capitalism	Welfare capitalism	Market capitalism	Personal capitalism	Managerial capitalism

Note: Table retrieved from Thornton et al. (2012)

Thornton and colleagues (2012) remind that the content of elemental categories will vary depending on the particular society context and the manifestation of different logics. For example, corporations may function differently in Western and non-Western societies (Scott, 2003). However, Western studies' ideal categorization of institutional logics and the organizational elements could be used as a theoretical framework for empirical research in other contexts.

According to the previously mentioned studies (e.g., Thornton et al., 2012), I identified five common elements: (1) Organizational identity – the claim of “who are we” at an intra-organizational level or a general collective level (Glynn, 2011); (2) Sources of legitimacy - the internal and external audiences who make legitimacy assessments (Ruef & Scott, 1998: 880); (3) Sources of authority – the power relations accepted as legitimate (Weber, 1958); (4) Attention - how individuals concentrate on certain characteristics to the exclusion of alternatives that would shift decision choices in other directions (Ocasio, 1997); and (5) Strategy - the pattern of activity as the organization adapts to its environment or competes (Mintzberg, 2003). The details of each ideal type and the according organizational elements will be presented in a later section.

From the media coverage and scholarly articles, notions such as “government-led”, “market operation”, “corporation management” and “public supervision”, are frequently used to describe China's PBS operation models (e.g., Zhang et al., 2014; Wei & Tian, 2011). Interestingly, related logics are often studied in hybrid organizations, using similar terms such as “Bureaucracy State”, “Capital Market”, “Managerial Corporation” and “Community” (Thornton et al., 2012; Pache and Santos, 2013; Jay, 2013). These concepts assemble respective economic systems of “Welfare capitalism”, “Market capitalism”, “Managerial capitalism”, and “Cooperative capitalism” (Thornton et al., 2012; Weber, 1978). As these societal logics are summarized in the Western capitalism contexts (Friedland & Alford, 1991, p.246; Thornton et al., 2012), the manifestation of these logics may be different from the society of China. In this case, the following section will incorporate both Western and Chinese scholars' views of these institutional terms and try to explore institutional logics in China's context.

The following section illustrates four institutional logics in a typologies analysis table (Table 2). The characteristics of the five organizational elements are shown in the table. The content is based on the analysis tables of Thornton et al. (2012), Pache and Santos (2013), and Jay (2013).

To have an analysis at the organizational level, I made some changes to Thornton et al.'s (2012) expression so that the elements describe organizational-level characteristics (to compare the changes, please refer to Table 1 and 2). I replaced “sources of identity” with “organizational identity” – the claim of “who are we” at an intra-organizational level or a general collective level (Glynn, 2011). For “Basis of attention”, I looked at organization attention (Thornton, Jones & Kury, 2005). That is, rather than

“personal investment/status” (in Thornton et al., 2012), I focused on the following areas: organizational investment in the group/community (community logic), the status of interest group (state logic), the organizational status in industry (corporation logic) and the status in market (market logic). In addition, to present the authority structure more thoroughly, I added the content of “constraints/structure” (Jay, 2013) to the “sources of authority”. Additionally, in order to make the table suitable for China’s context, I also combined Chinese scholars’ institutional descriptions. For example, Thornton et al. (2012) would say a PBS operator’s source of legitimacy from a state logic to be “democratic participation” (p.73). But Chinese scholars may share different emphasis. The illustration will be presented below Table 2.

Table 2 Institutional Logics Analysis Table

	State	Market	Corporation	Community
Organization Identity	Citizens public welfare provider (e.g., social welfare and public transport)	Actor in market transaction	Company functions as part of a Corporation; Bureaucratic roles for individuals	Member of community; Community social service; Welfare service contributor
Source of Legitimacy	Government (political institution’s) approval	System of market exchange	Market position of firm	Stakeholders’ unity of Belief (e.g., the public, public agencies, partners, media...)
Sources of Authority and Constraint (power structure)	Governmental bureaucratic domination; Politician engagement, law & regulation implementation	Shareholder activism	Board of directors, Top management; Corporate culture	Normative expectations and commitment of community stakeholders (e.g., government agencies, clients and business partners)
Basis of Attention	Status of interest group (government and citizens)	Status in capital market	Status in industry; Investment in corporation	Investment in community
Operator’s Strategy	Increase public good/public service	Increase profit	Improve size & diversification of firm; Client service, value creation	Increase members status & honor of practices; Collective action framing

Constructs adapted from Thornton et al. (2012), Pache and Santos (2013), Jay (2013), Thornton et al. (2005), Friedland and Alford (1991) and Weber (1958).

The logic of “State”

Friedland & Alford (1991) believe that “state” is a rationalization and regulation of human activity by legal and bureaucratic hierarchies. In China, the logic of state is similar, but is closer to Dobbin and Dowd’s (1997) idea of “policy regimes”, which refers to the primary orientation of the state in securing social and political order with an administrative role. As discussed earlier, PBS thrives when China’s governments implement the political decision of PBS and provide financial and political support. The central government publishes PBS-favorable policies for municipal governments and corporations to start PBS projects. PBS’s political entrepreneurs (such as public officials or politicians in key positions) promote PBS through the political systems (Saheen et al., 2010) while government agencies act as supervisors and monitors in program planning and evaluation. Hence the state logic manifests as a bureaucratic state. Compared to Western political system incorporating democratic participation, the bureaucracy in China may emphasize more in political control and authority approval.

As per organizational characteristics of the state logic, the five categories are: (1) the organizational identity, which can be an organizer or redistributor of citizen welfare (government bureaucracy and public service) (Weber, 1978). In this respect, PBS program would be a form of social benefit and part of the public transport. (2) Its legitimacy would come from governmental and political institutions as the program requires political planning and approval as well as citizen engagement. (3) The authority (power structure and constraint) includes governmental bureaucratic domination, politician involvement as well as the implementation of laws and regulations. (4) The attention of state logic will be the status of interest group (social class with political power). (5) And the strategy would be the increase of public good. This includes the measures to enforce political power or administration system such as supporting policy implementation and serving constituents (Jay, 2013).

The logic of “Market”

In a system of “market capitalism”, Western scholars argue that capital market is the commodification of human activity (Friedland & Alford, 1991). Friedland and Alford (1991) describe market’s business principles as profitability, efficiency, stakeholder accountability and economically motivated transactional behavior. In addition, King and Pearce (2010) argue that markets are inherently political. This is reflected by markets’ ties to the regulatory functions of the state, and that market actors could use markets as a platform for social change. Mainstream Chinese scholars take market as an efficient mechanism for private transactions as well as public resources distribution. Zhang (2011) argues that the logic of market is to provide value and obtain individual wealth. Under the market logic, actors can exchange PBS service provision for economic purpose.

As per organizational characteristics of the market logic: (1) the organizational identity is an organism for market exchange and profit. (2) Its legitimacy would come from available systems of market exchange and share price. (3) The sources of authority include shareholder activism and ownership as well as other power structure in the market such as industry analysis. (4) The attention of market logic will be the status in the market (company market value and potential profitability). (5) And the strategy would be the increase of efficiency and profit (Thornton et al., 2012).

The logic of “Corporation”

Modern theory says that a corporation is an entity of a series of contracts (Coase, 1937). A firm executes contracts internally which results in reduced transaction cost. Coase (1937) believes that firms gather all the production resources to create higher value products and efficiency. Many scholars believe that corporation logic emphasizes a quest for corporate growth and a preoccupation with the bottom line (e.g., Thornton et al., 2012). Chinese scholars suggest that corporation and market affect each other: a corporation is by nature an organization of production, without production, market can hardly developed, and vice versa (Zhao & Luo, 2000). PBS operators do incorporate many skill sets and technologies for PBS implementation such as construction, market development, and program maintenance. Whether profitability stands in their organizational agenda needs further study.

As per organizational characteristics of the corporation logic: (1) the organizational identity can be company hierarchy and client service. In this respect, PBS program pays attention to process management. (2) Its legitimacy would come from the market position of the firm, which constitutes the positioning and capability of the company in the market. (3) The authority (power structure and constraint) includes board of directors and top management as well as informal mechanism such as corporate culture. (4) The attention of corporation logic will be the status in a hierarchy such as the attention to employment and organizational investment. (5) And the strategy would be to adjust the size and diversification of the firm for efficiency and resources advantages.

The logic of “Community”

As Thornton et al., (2012) notes, “community logic” explains how organizations are more than economic actors as they are also members of geographically bounded collectives that organize activities by shared values within the collectives (Weber 1922/1978: 902). Brint’s (2001) definition goes beyond geographical limit: “communities are aggregates of people who share common activities and/or beliefs and who are bound together principally by relations of affect, loyalty, common values, and/or personal concern.” Related to this definition, some scholars proposed “third sector” or “civil society” to describe the intermediate area between the government system and the private sector (e.g., Jay, 2013; Jäger &

Schröer, 2014; Yu, 2006). Under the political system in China, the formalization of civil groups and member assembling would be seen as political behaviors. Although a “community” may not belong to China’s government system, it is recognized in China’s laws and regulations (Yu, 2006).

A PBS program, as well as the operator, is usually based in its geographical operation area - a city or a district community. Although managers and supervisors can come from another city, the majority of employees are residents of the region. Another meaning can be the stakeholder community. Every PBS program needs to coordinate with related players in the PBS sector, such as bike suppliers and government officials. An educated assumption could be made that the logic of the other players in the PBS circle can affect PBS managers.

Regarding the organizational characteristics of the community logic: (1) the organizational identity is being a member of a community to contribute to non-profit social service. In this respect, PBS program perceives itself as part of a collective nonprofit solidarity for the local region (Jay, 2013). (2) Its legitimacy would come from community’s unity of belief (e.g., the opinion of the people, public agency, partners, and media) (Thornton et al., 2012). (3) The sources of authority and constraint include the normative expectations and commitment of community stakeholders (e.g., government agency, PBS users and business partners). This decides whether an organization’s actions would be perceived positively or negatively. (4) Attention from the community logic is to increase investment in the community. (5) And the strategy is to increase the status and honor of its members and practices. This could be achieved through membership building and collective actions.

In China, some studies have studied the above logics in their respective fields, but very few studies uncovered all these four proposed logics and their respective organizational characteristics in detail. Furthermore, studies about hybrid organizations in China are still limited.

Hybrid Organizations’ Response to Institutional Logics

After identification of the multiple organizational logics, the second research question is to understand hybrid organizations’ strategies. Oliver (1991) summarized five strategies that organizations with institutional complexity would adopt to secure legitimacy and access to resources. He perceived institutional complexity as “conflicting logics”. Many recent strategy studies are adapted from his typology (e.g., Jay, 2013, Pache and Santos, 2010, Pache and Santos 2013). The five strategies include: Acquiescence, Compromise, Avoidance, Defiance, and Manipulation.

When facing conflicting logics, “**Acquiescence**” represents a passive response strategy to adopt the requirements imposed by the external institutional constituents. It can happen in three different forms: (1)

organizational habit that organizations adhere to taken-for-granted norms, (2) organizational imitation of institutional models or (3) voluntary compliance to external requirements (Oliver, 1991; Pache & Santos, 2010). “**Compromise**” means that organizations create or adjust behaviors to conform to partial or minimum standards from different logics (Oliver, 1991). Organizations can try to negotiate to balance or alter demands from resisted parties. “**Avoidance**” refers to the attempt of avoiding institutional pressures by “decoupling” or “escaping” institutional influence. It means that organizations adopt different organizational behaviors from what they symbolically claim (Tilcsik, 2010) or exiting the domain where pressure is exerted (Oliver, 1991). “**Defiance**” refers to the “explicit rejection of at least one of the institutional demands, in an attempt to actively remove the source of contradiction” (Pache & Santos, 2010, p.21). Organizations can denounce or challenge the institutional prescriptions (Oliver, 1991). The last strategy of the typology, “**Manipulation**”, is an active attempt to change the content of the institutional norms to minimize or balance conflicting demand.

Some recent studies propose another strategy, the “**logics combination**” (Greenwood et al., 2011; Pache & Santos, 2013). This recent trend sees multiple logics as “complementary” instead of “conflicting”. In Pache and Santos’s (2013) study, they find that organizations may selectively combine intact elements prescribed by different logics to gain acceptance from the external stakeholders, preventing costly deceptions or negotiations. This strategy can also satisfy the competing demands from external constituents, the enterprises’ internal goals, and ensure legitimacy.

Although our level of analysis is organization, front-line managers’ interpretation of organizations’ strategy is vital to unveil the organizational response in practice. In a multiple-logic organization, individuals enact respective managerial responses in daily occurring events (Smets, Jarzabkowski, Burke & Spee, 2015). Very often, individuals need to shift their salience of logics and activate alternative behaviors (Thornton et al., 2012). Or, under “logics combination”, they may adopt several different practices at the same time. From the managers’ sense-making, we may know what logics are behind organizations’ decision-making. For example, in Jay’s (2013) studies of the Cambridge Energy Alliance, he focuses on members’ sense-making process among the logics of state, market, and civil society through observation and interviews to discover the change of organization attention. Pache and Santos (2013) reveal that managers perceive their original professional background as distracting organizational logic and thus adopt organization structure from the opposing logic (as compared to the conflict between the market logic and corporation logic). In sum, managers’ understanding can suggest the organizational logic; moreover, managers’ understanding can suggest the organizations’ strategies.

RESEARCH METHODS

Research Design

To explore the two research questions of how managers understand their organizations and their organizational response towards multiple logics, comparative case study design (Eisenhardt, 1989) will be used in this study. Eisenhardt described this design as continuous comparison of data and theory during incremental case selection and data collection according to the emergent theory. Qualitative data of selected cases was collected to understand the organizations' characteristics and to compare against the framework of ideal institutional logics. Data from both interviews and achieved data were compared and then were used in within-case and cross-case analysis to discover potential patterns. During the process, research hypothesis was articulated and the findings were compared to the literature.

Interviews were conducted on Chinese managers from China's PBS operation companies. Because managers are directly influenced by both their organizations and the outer societal environment, they are the institutional agents that empirically define the company values through strategy implementation and interactions with internal and external actors. We will have a front-line perspective of PBS operation companies' institutional logics. Interview questions were adapted from two case studies (Jay, 2013; Pache & Santo, 2013) to reveal managers' understanding of their organizational characteristics, such as "how people in the organization thought about their hybridity?" to understand their organizational identity and "the challenges they faced as an organization" to observe institutional conflicts. The questions aimed to find out the goals and missions of the organizations, the supportive factors and power relationship during the PBS program development, as well as the organization strategic actions. (The complete questionnaire can be found in Appendix 6)

In order to make the questions easy to understand for Chinese managers, the interview guide was back-to-back translated. Three Chinese speakers, one of whom is a scholar in PBS, were enlisted to assist in the interview questions' translation and composition.

Data Collection

A theory sampling strategy (Glaser and Strauss, 2009) was used for the study as the investigation started from a general subject at the initial stage of data collection. The analyst then developed precise criteria during the further collection to validate or conceptualize theory from the research. In order to understand the institution logics through PBS daily operations, the first sampling criterion requires selecting PBS program to have operated for at least one year with more than 50 docking stations. These PBS programs may be more mature than newly-started ones, and their managers would be able to give

more insight. The second criterion was the availability of secondary data online of both the companies and PBS programs; data from different stakeholders provided a more objective view. The final criterion was the inclusion of programs of two operation modes: Government-run (GR) and Public–Private-Partnership (PPP) PBS programs.

There were two types of data: primary and supplementary. Primary data was data collected from semi-structured interviews with PBS operators' manager. Supplementary data was archival data either publicly available (online) or provided by our informants to increase the validity of the findings (Eisenhardt, 1989). I collected the secondary data by using keyword search in online government reports and announcements, company websites and social media pages, as well as online journals. In order to understand the program development, the time span of the data included the time before the PBS program was established and ten months after the interview. For each case, the interviews lasted about 2.5 to 3 hours and the secondary data extracted ranged 11-20 pages (data sources as summarized in Table 3).

PBS operators and managers were identified through online search. To do the screening, I mainly used the list published on ITDP's website on public bike programs (<http://www.publicbike.net/defaulten.aspx>) and the program websites. Some programs' websites had phone numbers and email address. Initial contact with PBS operators and managers was conducted through Skype phone calls and emails.

Table 3 Summary of data sources

Data Types (Time)	Description	Use in Analysis
Operator interviews (Jun-Sep 2015)	Manager position	
Huimin Operate (2.5h)	Vice-President (HM1)	
To-ride (3.4h)	CEO/General manager(TR1) Department manager(TR2)	Explore how managers perceived
Jinhua Juzi (3h)	General manager (JH1) Office manager (JH2)	PBS and organizations' goal,
Jiangbei lvhang (JLPB) (2.5h)	General manager (JL1) Office manager (JL2)	challenges and strategy towards PBS
Huangyan (2.4h)	Department manager (HY1) Office manager (HY2)	development
Secondary data (May 2015 – Aug 2016)	Sources	
Company website and social media platforms	Company websites or program websites, Company weibo	Gather perspectives from companies, governments and
Government reports & announcement(12 pages)	Municipal governments' and district governments' websites or weibo	other institutions as well as the general

Internal document (provided by managers from two operators) (69 pages)	Company communication, Performance evaluation forms, Marketing slides	public; Complement details and company development and
Total media coverage (80 pages)	Local newspaper, National newspaper	change of institutional logics

A total of 27 PBS companies were approached to invite their managers for interviews. Among the 27 operators, some did not receive reply. Some left incorrect contact and their PBS call centers did not agree to forward the invitation. Two companies only supported face-to-face interview while some refused invitation for schedule conflict or lack of interest. Three government-run companies only accepted government invitation letter. I asked the managers interviewed to refer more managers to participate in an interview. Finally, nine managers of five companies agreed to participate (Two GR programs and three PPP programs). Each of these companies had two manager participants except for one company (she was the only one available for interview).

Research Setting

The five PBS operators located in three different provinces in eastern and southern China (the map of the companies and programs can be found in Appendix 3). They were two GR companies operating district-level PBS, and three PPP programs running several programs in several districts. I focused on one PBS program of each operator and study the operator's organization behaviors during the implementation of that program. These five programs were in one of the big cities of their province. The programs were initiated during 2012-2014 when their province was investing in public transport development and air pollution control. These regions shared common backgrounds such as a need to improve public transport to satisfy economy development and increase of population. Other possible reasons for PBS implementation included air pollution reduction, political assignment from higher-level government, and tourism development. This political background represents the general political environment in China. However, the degree of local government's involvement may be different, i.e. the degree of politicians' engagement and financial support. The five programs' differences on economic development and geography environment can represent a large numbers of PBS programs in China. Their host municipalities include major cities and second major cities in China where PBS were common. The representation of these cases may give us more general thoughts on China's PBS development, which is an advantage for the study.

According to the interviews, in 2015 the scale of these programs varied from 60 to more than 500 docking locations. All of the five programs shared similar membership deposit and scaling charge after

free-ride time. But there were some slight differences, such as day charge maximum, user age limit, and free-ride time (30 min to 4h per ride). Except for the program operated by To-ride, these programs' pricing oriented to the common PBS in China. The use of these bikes was almost free and people could get the deposit back on returning the membership card. Local governments were the program leaders who were responsible for program planning and, most of the time, financing. Lack of locations for docking station and government subsidy were two main development obstacles.

Table 4 Description of the five operators and the focus programs

Operator (Program name)	Started Month & City	Operate mode	Bike #	Station #	Free initial time	City's single operator	PB program goals
Huimin Operate (Huicheng PB)	04-2012 Huizhou, Guangdong	PPP	800	100	4h	Yes	Livelihood program; Public welfare service
To-ride (To-ride PB)	09-2013 Guangzhou, Guangdong	PPP	3000	60	0 or 0.25h	No	Provide urban low-carbon transport; Promote cycling culture
Jinhua Juzi (Jinhua PB)	11-2013 Jinhua, Zhejiang	PPP	10000	500	1h	Yes	Livelihood program; Promote low-carbon transport and PBS usage; Reduce air pollution
Jiangbei Lvhang /JLPB (Pukou PB)	07-2014 Nanjing, Jiangsu	GR	6000	132	2h	No (return bikes at original district)	Last-mile public transport; Carbon emission reduction
Huangyan PB (Huangyan PB)	12-2012 Taizhou, Zhejiang	GR	8000	169	2h	No (return bikes at original district)	City development; Livelihood program; Promote low-carbon commute & cycling; Reduce air pollution

Sources from interviews, company websites and media coverage: <http://www.jhjuzi.net/>; <http://www.hmsys.cn>; <http://toride.cn/>; Cai and Xu, 2016; Wu, 2015; Li, 2016; Dai, 2015.

DATA ANALYSIS AND FINDINGS

As mentioned, this exploratory study was based on typologies analysis. Combining the analysis models from Pache and Santos (2013) and Jay (2013), the study modified Thornton et al. (2012)'s theoretical model to be suitable for China's institutional logic context. As a result, we focused on the four mentioned logics and five aspects of organizational life (as illustrated earlier in Table 2).

For the analysis, primary data from manager interviews and secondary data were used as complement. Interviews were recorded and transcribed. Then both the interview and the secondary data were analyzed using Nvivo (qualitative data analysis software). The goal of the coding was to interpret the information and to draw conclusions about meanings and organizational actions (Langley, 1999). After the in-case analysis, cross-case analysis was performed to search any differences or similarities among the five cases. The five-step analysis was conducted as followed:

1. General assumption of themes related to organizational institutional logics was derived from a close read of the data.

2. First level coding was conducted for each case. I outlined sentences (one meaning unit for one coding entry) related to each of the five categories of organizational aspects. I coded the whole paragraph unless it could be separated into different meaning unit. When there was entry that I judged interesting but could not categorize right away, I coded them in an "extra" node for later review. For example, the interview entry, "In fact, when we started building this system, we reported to the government agencies that we had metro, public buses and taxi, so public bike is going to be the fourth means of public transportation" (JZ1), was coded as "organizational identity" as well as "Strategy"(each coded theme is called "node" in NVivo). At this stage, same content could appear in several nodes as managers may include a general idea or several organizational aspects in one answer.

3. After finishing coding of five nodes, I conducted the second-level coding. I created themes according to the different logics ("State", "Corporation", "Market", "Community", and "other") and highlighted the data with different colors. The colors gave an overview of the percentage of different institutional logics' examples. I kept a term "other" for content that could describe institutional logics but was not easy to classify. The second-level coding was to analyze the content from each organizational aspect and see whether they suggest any logic. I kept referring to the concept definition and examples from the literature section to ensure coding consistency. I repeated this procedure one time while checking the already coded entries for any necessary modification. Then, I grouped all the valid coding entry as evidence examples for all institutional logics in an analysis table. I deleted the unimportant examples and summarize the important ones according to the frequency of similar data and the emphasis

of the content. Emphasis was detected by two ways: (1) interviewee's wording hint such as "most important", "first of all"; (2) if one logic was suggested by relatively more examples and the meaning was clear, I perceived that logic as the important logic for that organizational aspect. And I formatted that cell in Bold. In the end, a table of analysis was summarized for each case.

4. Before the cross-case analysis, I compared the same cell across the analysis tables (under the same organizational aspect and logic) to see if examples suggested the organizational aspect and logic I coded. In this case, coding inconsistency could be detected. The same process was taken to verify the correctness of the evidence according to the institutional logics. For the conclusion of each case, if there were more than one interviews or different sources for related information, I compared them to see if they aligned with each other. Then, the analysis tables were further summarized and abstracted.

5. At the final step, a cross-case analysis was done through comparing the five tables and evidence together. I looked at each organizational aspect and see how each logic was represented by different examples. The comparison was then summarized.

The following section is the summary of the findings of each operator. Each case includes the background of the program, the operator's organizational characteristics and their response towards multiple institutional logics.

Case 1 –Huimin Operate (Huicheng PB)

In January 2012, the proposal of PB construction was passed during the Municipal People's Congress (MPC, highest-power institution in the local political system). The mayor gave immediate approval and made it one of the ten public welfare projects of 2012. Within two months, Huimin Operate (Guangdong Huimin Operate System Management Co. Ltd.) was established by Huizhou Baixinjia Group Co. Ltd. (a local private company) and a software company. The new company managed the PB investment, construction, and operation. The implementation was fast and the bike fleet was larger than the original proposal. The fact that the program was open to general public showed the inclusiveness and equality of the city's public service (Long, S., 2013). According to the PB contract, the government allowed the operation company to do business at the bike stations as revenue, such as selling advertising space, retails, payment service.

Huimin Operate implemented PB programs in a few districts and the one in Huicheng district is its first program. Compared to most PPP programs with huge government finance, Huimin Operate (Huicheng PB) offered 4 hours of free ride but received little government subsidy. Nevertheless, the program grew fast within the first year of launch. The number of docking stations grew from 20 docking

to 100 with 10,000 public bikes. In 2015, the number of public bikes went down to around 8,000 (Bureau of Public Utility of Huizhou, 2015).

Table 5 Huicheng (of Huimin Operate) PB Growth

	2012-04	2012-11	2015-09
Number of Bikes	2,000	10,000	≈ 8,000
Number of docking stations	20	100	100
Time length of free ride	4h	4h	4h
Daily usage times	≈1,800	N/A	≈5,000
Membership cards	N/A	16,771	>30,000

Institutional logics of Huimin Operate

Organization identity

Regarding organizational identity, the interview data suggested three logics: the state logic, corporation logic and community logic. As an example of the state logic, the manager believed that the PB program itself should be a “public service” or “public welfare” and that the government should subsidize all costs (HM1). Also, the manager noted PB as representation of the city image besides being a public transport option for residents (HM1).

The company shares strong corporation logic as the manager considered the company a branding subsidiary of the parent company. Adding to that, the manager noted that PB program is a product of the parent company’s strategic planning - "we (the parent company) wanted to do branding. After reaching a certain scale, the company wants to build a stronger branding." The parent company (Baixinjia Group) allocated investment and guided Huimin to manage the program; it also acquired a bike factory to supplied the PB bikes. According to Huimin’s company website, its main business is Third-Party Payment system and equipment and PB is just one of the businesses.

The community logic is shown through the community value expressed by the manager- “we don’t expect to make money through the PB program.” She implied that both presidents of the parent company and of Huimin Operate supported corporate social responsibility.

Sources of legitimacy

The state logic contributed to the sources of legitimacy of Huimin. Governmental subsidy and regulation facilitation were mentioned as the main supporting factors to PB by the manager. She noted the local government followed the national and provincial call for environmental protection and public transport, which favored PB development. Also, the local government wanted to educate citizens to improve public manners and organized public events to promote public awareness. The events include Bike Cleaning Day (“Appropriate public manners”, 2013). Meanwhile, the government held a public campaign (managed by the Public Utility Bureau) for the public to vote among 6 designs of PB bikes and stations (Long, S., 2013). It also held hearings with district administration offices and citizens on their opinion about PB, which can be viewed as a democratic decision-making and public propaganda for PB. The initiation and leading from the government show the state logic. The government supported the construction of the PB stations and mobilized many bureaus to facilitate the program setup. It took only three months after the PB proposal at the municipal people’s congress to set up 20 docking stations (Huimin Operate, 2014).

The corporation logic is also supported as the PB project is part of Baixinjia Group’s branding strategy. The manager interviewed was experienced in media relation. She said: “Initially, we wanted to do branding [for Baixinjia Group] [...] we didn’t think too much at the time we began the program, and we didn’t expect the high cost.” This shows that Huimin Operate is seen by Baixinjia Group as a platform to increase the Group’s influence and to support the company's development. Baixinjia wanted to develop the citizen card project through involving in the local PB. The market logic was also at play as the company invested in PB in return for business development opportunities.

Table 6 Institutional logics of Huimin Operate

Huimin	State	Corporation	Market	Community
Organization Identity/ Root Metaphor	Government bureaucracy; Public service (i) Public service program (i) City image demonstration & provision of transportation option	Corporation as hierarchy (i) Subsidiary of a privately-held group company (i) Branding for the parent company (m) Business development		Member of community, Community social service (i)(m) Corporate social responsibility
Source of Legitimacy	Government participation & approval (i) Policies on environment protection & public transport (m) Government-led propaganda (m) City image & public education	Market position of firm (i) Branding so that more people know about the parent company (i) Business development to increase the Group's influence & to support company development	System of market exchange (m) Company invested in PBS in return for business development opportunities	Stakeholders' unity of will (i) Wide support from many government agencies as well as the company leaders
Sources of Authority (Power Structure and constraint)	Governmental bureaucratic domination (i) Government decisions (i) Report to the supervision bureau (m) Government-led hearings	Board of directors , Top management, Corporate culture (i) Company structure with departments reporting to the GMs who report to BOD (i) Company voting	Shareholder activism (i) Profit as investment motivation	Normative expectations of community stakeholders (i) Supervision from residents (i) Fear of citizens backlash
Basis of Attention	Status of interest group (i) Sustain the non-profit public welfare project	Status in industry (i) Operation & Business development (i) Company reputation		
Operator's Strategy	Increase public good (i) Apply for subsidies or grant	Increase size & diversification of firm (i) R&D in other business (i) Simplify management structure & procedures (m) Market expansion & diversification	Increase profit (m) Look for sub-contractors (i) Seeking investors	Increase status & honor of members & practices (i) Invite public to visit the operation; Communicate with enterprises & government

Note: The paragraphs with (m) are summary from media coverage, (i) are summary from interview. The words in **bold** are the relative dominant logic according to the data.

Sources of authority and constraint

The state logic is strong as political administration is one of PB's sources of authority. The government steered decisions such as the number of docking stations and the location. The manager said: "The Public Utility Bureau supervises the program, and sometimes we solve problems together." Although their supervision department did not take part in the daily operation, it evaluated the program at least once a year. The manager noted that starting in July 2015 the Public Utility Bureau would increase the inspection frequency. Since the PB planning, the company was supervised by the government and officials of both the district and the municipal levels. As previously mentioned, the government led public hearings on PB planning.

The corporation logic can be seen as the management followed a corporation structure. According to the manager, each department manager reported to general managers' office and the latter supervised the two major departments while reported to its parent company's BOD and chairman. Also, Huimin Operate shared Baixinjia's corporate culture and decisions were discussed by everyone at BOD and then approved by majority vote. When Huimin was owned by two companies, the major shareholder (Baixinjia) took decisions over the other partner.

In addition, another source of authority was the profit generation. One example from the interview suggested the market logic. The manager revealed the reason that the company did not invest much in developing the advertisement and kiosk business as the lack of profit potential: "Huizhou is a small city; our advertisement space doesn't see big demand. The market environment is bad, and it is hard for us to sell advertising space. There is little revenue from the advertisement" (HM1).

As per community logic, the manager acknowledged residents' power in supervising the operation. According to the media, some residents reported to the government and the media that Huimin's empty kiosks took up public space. The government then urged Huimin to either utilize the kiosks or give back the space (Zhong, 2015). The local community posed a strong pressure to the PB management: "Our Company has thought of shorten the 4-hour free ride to 1-hour, however, fearing the possible backlash among citizens, we gave up" (HM1).

Basis of attention

The manager agreed the PB program originated from a public nature. The manager said: "It is a public welfare project, we know its limitations and where we are heading. It is not a profitable program. But we hope the revenue can cover our cost of salary and company operation." That the company supported public program suggested the state logic.

And the corporation logic was explained by the internal management focus. The manager said the core of the company included the PB daily operation and the business development to explore business potential. The manager commented about their current focus, “We want more people to know our company when mentioning Huimin Operate. [...] we should concentrate on solving capital problems, the program development, and the problems of vandalism” (HM1).

Operator’s strategy

According to the interview, the company supported PB as a public project, which suggested the state logic. As the company stressed the responsibility of the government, it looked for more government subsidies to continue the program. Meanwhile, the corporation strategies suggest the corporation logic. The company website wrote: “Huimin Operate’s main business includes third-party payment system, software development and information management” (Huimin Operate Co. Ltd., 2014). Currently, the company wanted to improve management efficiency and develop profitable activities. As the manager explained their business activities:

We tried to develop internet technology and a financial payment tool [...] we participated in PB tendering in other cities. Also we want to increase the functions of the PB membership card. [...] We want the government to repurchase the PB. Most PB programs in China are fully funded by the local governments or a government purchases the operation service from the operator. [...] We try to simplify business management structure and company procedures and to create a better working environment. Our goal is to limit future burdens. (HM1)

The market logic was also suggested by the company’s profit generation and looking for new investors. The company thought that the advertisement and kiosk business would not bring high return of investment. Therefore, the company outsourced the advertisement and kiosk commercialization. The parent company did not invest more to enlarge the PB program nor to further develop related business. They looked for new shareholders or investment.

The company’s intention of gaining community legitimacy expressed its community logic. It invited the public to site visits to understand how the operation functioned and costed (HM1). The president told the journal that they offered free advertising space for public-service ads as a demonstration of the company’s social engagement (Xiang, 2014).

Organization response towards multiple institutional logics

The data suggested multiple identities through different organization aspects of the PB program. The manager agreed that Huimin’s operation mode was “government-led, enterprises-invested and operated”-

the government was the initiator and supervisor while the company was the contractor. However, conflict existed among different logics.

The data showed the PB dilemma among the state logic, the corporation logic and the market logic as different shareholders have different expectations. For example, the manager pointed out, the media and government perceived PBS program as a public welfare project (Xiang, 2014, November 10), but their company shared different perception of PBS program. She said: “Many citizens and organizations don’t know that the program is mainly invested by our company. They all think it is owned by the government and operated by us.” This challenged the company identity. In addition, the manager claimed that they received too little government subsidy. This reflected the conflict on ownership: the state logic of the program among the other stakeholders was strong; Huimin could not fulfill its corporation logic to be recognized as the major contributor. Also, Huimin’s disagreement about the government subsidy also suggested the company paid attention to market logic while seeing the PBS program from a state logic. This explained that the company expected the government to share the operation cost and responsibility.

The manager believed that a private enterprise alone was not enough to operate the PBS program, and thus urged support from the government. The manager argued, it is hard for a private company to cover the cost of the damage or loss of PB bikes when there were no sufficient regulations protecting the PB facilities in public venues. The manager said:

The program has some [attributes of] publicity, sociality and brand impact [...] the program is a company behavior, but it also involves public behavior, which is contradictory. [...] There should be an area of adjustment. The government should adjust to the contradictory point.

The vandalism problem may be related to the lack of authority of the company to handle public infrastructure maintenance. The government also reported that some bikes were in bad condition during the inspection in September 2015 and it urged the company to fix the problem (Bureau of Public Utility of Huizhou, 2015). Although the government expected the company to maintain well the PB, the company claimed financial problems and once delayed employee payment for two months. This suggested again a conflict between the state logic and the corporation logic. Huimin’s fix company budget also suggested the rational from the market logic; i.e. the company would not invest too much in PBS.

Facing the challenges, Huimin Operate tried to balance different demands. It did not initiate to enlarge the PB network but promised to maintain the bikes for user safety and public need (Yang, 2015). This suggested some degree of “Compromise” strategy to achieve minimum requirement of the state logic while maintaining company financial health. Meanwhile, the company kept on developing other business opportunity as planned at the establishment of the company, such as product development and selling PBS

service. Both company websites implied that PB was not the single business of the companies, and the core business of Huimin Operate was smart-card payment service.

In general, Huimin Operate had influence from all the four logics that we proposed. The company tried to fulfill the contract with the government while avoiding the demand for cost control and corporate plan. It maintained the existent bike fleet and public communication through media channel. Although Huimin showed interest in doing good for the community, but their other business projects seemed more important than the PBS program. In general, the Huimin's organizational strategy suggested all the four logic as it tried to maintain business development and community acceptance. Indeed, the company was trying to shift the current business model of the PBS program to a more government-oriented mode.

Case 2 – Guangzhou To-ride

Established in 2013, To-Ride (To-ride Bicycle Rental Co. Ltd) had been the subcontractor partner of Rising-Sun (Rising-Sun Public Bike Rental Management Co. Ltd.) and took over the latter in 2014. To-Ride was originally a working group of Tourace (Tourace Co. Ltd., established in 2011) led by the CEO, Jiang Ping (same CEO for both Torace and To-ride). Tourace's mission was to popularize cycling culture in the city of Guangzhou and organize cycling events (To-Ride Bicycle Rental, 2015). Similarly, To-Ride's hoped to provide solutions of PBS program operation and promote the life style of leisure cycling in the city.

On To-ride's company website, the bike-rental program had 52 docking stations and 2000 bikes of various types in 2014 (To-Ride Bicycle Rental, 2015). The company claimed to have 40% of their stations scattered near metro stations (mainly in city downtown) and 60% in some green-way areas. The company planned to have 100 new stations during 2015. The website did not provide update information on the later program size.

To-ride worked for government agencies for regional PBS programs, such as Luogang District Bureau of Urban Utilities Construction and Gardening. At the same time, The company continued to look for new partnerships in order to implement their bike rental service to more areas of the city. For 29 urban stations, the first 15 minutes was free with scaling charge of one yuan per 30 minutes afterwards. For the Green-way stations, there was no free ride time and each hour was 3 yuan. To-ride's pricing was very different with the other Chinese PBS programs who offer more than one hour free ride.

Institutional logics of To-Ride

Table 7 Institutional logics of To-ride

To-ride	State	Corporation	Market	Community
Organization Identity/ Root Metaphor	Public welfare for citizens (a form of social benefit and part of public transport) (i) Public service provider	Corporation function; Bureaucratic roles for individuals (i) Private enterprise, private investment, PBS operation subcontractor	Market exchange, Profit (i) Profit, company financial sustainability (i) Social change	Non-profit solidarity: group of bike lovers and biking promoters (i) Love for cycling
Source of Legitimacy	Governmental approval (i) Government assistance in water supply, electricity infrastructure construction & land use right	Market position of firm (i) Partner subcontractor (i) Set up To-ride to obtain new investment and management		Stakeholders' unity of will (i) Bicycle lovers' passion
Sources of Authority (Power Structure and constraint)	Governmental bureaucratic domination (i) Government approval & supervision governmental agencies (i) Government changed(reduced) support to PPP operators	Board of directors Top management; Corporation culture (i) CEO gears strategy & implementation (i) Company structure: department coordination & shareholder meeting	Shareholder activism (i) Recruit investors with finance & market resources	Normative expectations of community stakeholders (i) Pay attention to the customer feedback for service improvement
Basis of Attention		Status in industry (i) The PBS business supports other business such as cycling event organization	Status in market (i) To switch from operation service to system platform service	Investment in community value (i) To popularize bike travel and a cycling lifestyle; to prioritize customer needs
Operator's Strategy		Increase size & diversification of firm (i) Scale-up plan: develop franchising business (provide business partners with bikes & rental management) & other related business (i) R&D of new rental app for efficiency & leisure cycling service	Increase profit (i) New rental app to reduce time and financial investment (i) Continue profitable business such as franchising	Increase status & honor of members & practices (i) Organized public activities to promote company reputation, the PBS program & cycling culture (i) Connect with other organizations in the bike industry for support

Note: The paragraphs with (i) are summary from interview. The words in **bold** are the relative dominant logic according to the data.

Organization identity

The state logic and corporation logic were reflected from the leaders' perception of the Program. The CEO and the manager perceived their PBS program as public service but different from the government-run PBS programs. Firstly, they suggested the state logic as the manager mentioned "We are doing public service, which relies on the government's full support" (TR2). Secondly, the manager and the CEO believed in their privately-run model. The CEO mentioned, as a private firm, they paid attention to the operation efficiency and resources utility while looking for revenue generation opportunity (TR1). This reflected the corporation logic in their organizational identity. And that the CEO perceived PBS as business potential and as marketing investment for the parent company's business, suggested the market logic.

The community logic was also suggested as the two leaders expressed their attention to the community of bike lovers and promoters. According to the interviews, the CEO identified himself as a cycling promoter. The manager also stated:

Different from other companies, the initial motivation for us to form our team and later a company is our love for bikes. [...] We intend to popularize traveling by bike and a biking lifestyle [...] we consider customer needs before seeking profits from PBS program. (TR2)

The data implied that their notion of "customer" was a combination of "business customer" and "cycling community member".

Sources of legitimacy

The state logic and corporation logic are the main sources of legitimacy of the To-ride PB project. According to the interview, the CEO thought that PB in China in general served as a public program. Indeed, he recalled that at the beginning of PB development, Guangzhou city's government showed support to the operators. Back in 2010, the Provincial Green-way Project and the 2010 Asia Games stimulated interest of both the government and the private sector to develop PB projects. However, later, the unclear policy and inconsistent municipal support hinder the legitimacy of privately-run PB. The CEO said, some districts did not authorized them public land use right and or business license (TR1). Since 2014, with increased media coverage and public attention to the problems of the PBS programs in Guangzhou (Chen, 2014), the government restarted the discussion of PB improvement and decided to increase investment in the government-run program (Ma, 2016). The municipal government aimed to unify the PB network in the city to be operated by the state-owned company and supervised by the public transport bureau committee. The planning will create a unified PB system in Guangzhou with

governmental subsidy and a fleet of 30,000 bikes. To-ride's managers agreed that this government planning will affect To-Ride's PBS program.

The corporation logic was suggested as To-ride PB project emerged from the development of Jiang Ping's working team. According to the manager, before the establishment of To-ride, Jiang Ping (CEO) led a team of bicycle lovers in 2010 to organize cycling sports event with local authorities. His team negotiated with the PPP operator, the Rising-Sun Company, to be its subcontractor and partner to provide support in PBS program development. The CEO took control of Rising-Sun's bike fleet and continued the PB operation business. The establishment of To-ride was part of the strategy of the parent company To-race. The CEO said: "establishing an independent company helps to attract new investment and management and we can better administrate the program" (TR1).

Sources of authority and constraint

The authority of government greatly affected the company's development, such as land use approval and municipal administration, which suggested the state logic as source of authority on the PBS program. To-Ride was the PBS program contractor for two district governments (e.g. Luogang district government purchased their service of PB operation in 2015), and it had to follow both the district and municipal governments' planning and requirement on PBS programs (the government agencies included the Urban Management Bureau and the Bureau of Industry and Commerce). The CEO said, "Building a station must be approved by our direct superior and other governmental agencies such as urban management department and industry & commerce." The CEO and the manager revealed, some districts were interested in PB development whereas others not. He stated that this affected the company expansion strategy.

In addition, the To-ride's company structure and decision-making process suggested the corporation logic. The CEO was the major shareholder and decision-maker in the company. He led the organization operation with two other managers. Other shareholders were recruited for their financial support, commercialization resources and management expertise, which also suggested the importance of market development. But the market logic was not as strong as the corporation logic, as these shareholders did not exercise much authority in the company and the company's market development was for supporting the PB operation. High-level decisions regarding the strategic planning and commercialization of the PBS program were finalized through monthly shareholder meeting led by the CEO. The CEO explained:

The Company is based on my ideas [as CEO] and I can decide most of the things. I am the biggest shareholder. [...] As To-ride is still at the early stage, we have not adopted voting as decision-making process. (TR1)

To-ride valued the feedback from the clients and public users, which suggested that To-ride included governments, event organizers, residents and other PB users as stakeholders. Feedback collection in person or through social media was part of the company's operation procedure mainly to respond to the community demand and to improve the service for the community. This attention of stakeholders' opinion showed the community logic.

Basis of attention

The company attention suggested both the state logic and the community logic as the goal of To-ride Company was both cycling community building and public transport provision. According to the interviews and the company website, the goal of To-Ride was to popularize traveling by bike and the cycling lifestyle in the city of Guangzhou: "We want to solve Guangzhou's commute problem and provide a low-carbon commute and leisure option to the citizens" (To-Ride company website, 2015).

As mentioned earlier, the parent company (Torace) was related to cycling sports events organization and the PBS program emerged from the CEO's idea of building a cycling-friendly city. Indeed the work of To-ride's employees (including the CEO) also supported the projects of Torace (TR1, TR2). The manager believed that they focused on customer needs rather than money-making. Nevertheless, the CEO believed that their company could be profitable although they did not have a specific goal on financial return. The CEO commented that they shared different ideas from the government and he thought, Public Bike Systems should respond to the cyclers' need and avoid the tragedy of common so that the operation would be self-sustained (TR1). The CEO said:

My idea is to have PB as a leisure life style while the government sees it as a transport solution. [...] As the government sees PBS as a welfare project, the government is also less motivated to develop the program's business potential... (TR1)

The interview showed that their PB business included public bike rental, parking service for private bikes, leisure bike rental and leisure station service (in Parks and Greenway areas) (To-Ride company marketing document, 2015). The manager and the CEO affirmed that the key business was R&D of PB system platform and the commercialization of Public Bike System. The CEO pointed out, "PB business is the key to nurture other business such as cycling event planning". He also acknowledged that the future core business would switch from PB operation to commercialization of the system. The above planning aligned with the parent company's cycling event business and the change of future focus for the company of To-ride, which suggested the corporation logic.

In addition, the CEO mentioned, market logic was important for the company, as profit generation ensured financial capability to continue company mission:

Market operations are essential, because that's how the project survives. [...] The new rental system that we are developing will help us manage the PBS program more sufficiently and can help us save time and investment for the land use approval. (TR1)

In a nutshell, the company stayed close to their community value while continued the PBS program's market development.

Operator's Strategy

The strategy that To-ride enacted oriented to the corporation logic with some degree of the community logic (building a cycling culture and PB community). To-Ride's main strategy included the R&D of the system platform as well as the planning to enlarge the PBS program scale, to attract public users, and to serve the bike lovers. The strategy combined the company's profit-oriented mission and non-profit mission.

To-ride planned to increase the docking stations from 60 to 150 within 2015. In order to sustain itself and scale-up, the company adopted two major measures to achieve business diversification (corporation logic) and profit generation (market logic):

(1)The company looked for ways to enlarge the network of docking stations such as recruiting docking station franchisees. To-ride provides franchisee business partners with bikes and rental management as well as other business service such as retail business. The CEO commented on their cooperation with some newspaper booths and bike stores in Guangzhou: "Many of them (newspaper booths) chose joint cooperation, which means they bring financial or other supports in exchange for our bike stations and we provide the PB system to them."

(2)The CEO expected the self-invest mobile-phone system platform to help administrate their complex PB rental design and to spend less time and investment for obtaining land use approval. It aligned with the company expansion. As the CEO said:

The system will incorporate data collection and analysis as well as leisure functions, which supported the event organization business. In the future, we will sell the PB management platform instead of managing the PB facility themselves. (TR1)

At the same time, the community logic was shown as To-ride was active in engaging public via organizing public events related to PBS. The CEO commented: "After participating at these events, many people know about our company and our PBS program as well as the cycling culture." The CEO also confirmed about their effort in gaining public support through personal and professional network connections:

Actually we are connected with other teams or organizations in the bike industry, for business or in personal life. We'd communicate with these teams or organizations to win their support. (TR2)

Organization response towards multiple institutional logics

The interview data shows that To-ride's organizational identity was both a private company and a solidarity group. The company's core personnel came from a university cycling club. They perceived their PBS program focusing on cycling culture and cycling service, which was different from other government-run or PPP-run PBS programs. Regarding authority, while government decision would affect To-ride, the company's operation and decisions mainly followed the CEO's vision. Shareholders took responsibilities in improving public relations and business development. They usually agreed with the CEO's decisions. From this perspective, To-ride's corporation logic was clear.

As mentioned, the municipal government invested only in the GR-run program and planned to unify all the public bike programs in the city. And the mentioned that they tried to reach the municipal government-run PBS operator and the government for guidance and support, but there was no feedback. As government support permission was one major source of legitimacy, this posed challenge to To-ride's future financial sustainability and program legitimacy. Where the government did not initiate talk with To-ride, the CEO focused on its own company planning and business activities.

In terms of organization response, To-ride adopted strategies of logics combination and manipulation. As the local government prioritized government-run program, it was hard for To-ride to rely on government as a source of legitimacy. To-ride acknowledged the government-run PBS program as a competitor. The CEO commented that To-ride shared different PBS concept with the local government. This perception suggested conflict between To-ride's corporation logic and the state logic. To-ride's business nature suggested the combined logic through its profit generation activities (market logic) as well as cycling business service development (corporation logic). It also hoped to incorporate the casual life-style value in the PBS program to promote cycling culture, showing its community logic. The CEO publicly talked about the cycling culture for PB development in a public conference of public bike development in Guangzhou: "the main driving force for cycling trip in Guangzhou is economic reasons, rather than cycling habit like in Hangzhou. It takes time to build the biking culture in Guangzhou" (Mo, 2015). Indeed, the CEO pointed out the market logic nature from the users' perspective. This reflected To-ride's effort to change the content of the institutional norms to minimize or balance conflicting demand, which would be a manipulation strategy.

To-ride also proposed a different perspective of community logic and incorporated more cycling related groups as stakeholders for PBS program's development. The company actively explored business

potential that it invested in developing new rental technologies as well as the franchisee network. The company hoped to reduce legitimacy constraints and to create internal efficiency to offer more value to its clients. According to the interviews, To-ride continued developing cycling culture in the city and working with the government to improve the program.

Case 3 – Jinhua Juzi

In 2011, Jiangsu province named its eight major cities to develop public bike networks within three years as one of the measures to deal with air pollution and traffic congestion. At that time, the city of Jinhua started improving its urban transport by increasing bike paths and regulating parking for cars. In 2012, a proposal for PB implementation was presented at Jinhua's Municipal People's Congress. Jinhua's Development and Reform Commission issued a report supporting PBS and suggested planning for PB implementation (Feng, 2012)

In 2013, Green-Trans (Beijing Green-Trans Transportation Technology Co. Ltd., claimed to specialize in PBS program system and operation) won the 10-year PB tender contract from Jinhua government. And it established the PB operation company in Jinhua, Juzi Company (Jinhua Orange Public Bicycle Service Company Co. Ltd.) ("Green-Tran Company Introduction", n.d.). According to the tender, the operation company was responsible for the investment, construction and daily operation and management of the PBS program. The assets and revenue (including advertising resources, the smart card deposit fee and overtime fee, etc.) was attributable to the City Investment Company. The City Investment Company paid service fee annually to Juzi for the operation management service (Jinhua Public Resource Exchange Center, 2012).

Juzi Company implemented bikes and stations according to the government planning. The bike network increased from 1000 bikes with 100 stations in 2013 to 10,000 bikes with 500 stations in 2015 (Huang, 2015). The company claimed that the PB service covered an area which could serve more than half of the habitants of two downtown districts (Hu, 2014). According to the media coverage, Juzi Company's PB saw high daily usage rate (30 thousands to 40 thousands times) (Jinhua Government, 2015).

Table 8 Jinhua Juzi Public Bicycle Program Growth

	2013-11	2014-10	2015-07
Number of Bikes	1000	4600	10,000
Number of docking stations	100	300	500
Time length of free ride	1h	1h	1h
Average daily usage times	N/A	10,000	>30,000
Membership cards	14,000	62,000	>100,000

Jinhua government’s city-wide public wifi project included wifi device at the most bike stations. Residents could use the cellphone application and go online at the PB stations. The city regulated the transport design for cyclists and pedestrians’ right of way and expand PBS to suburban area. The government demanded Juzi for higher service standard. In 2015, the City proposed four criteria to Juzi, namely "zero empty docking station, zero full station, zero unfunctional station or dirty station".

Institutional logics of Jinhua Juzi

Organization identity

According to the interview, Jinhua’s PB was initiated by the government and Juzi Company was the operating contractor. Juzi company took care of the construction and service maintenance. The manager said, “We told the government, public bikes are the fourth means of public transport. [...] it's beneficial to citizens because it can ease traffic and protect environment.” (JZ1) His words implied the PBS program’s state logic. Both managers claimed that the PB service “provide convenience to the citizens”.

The two managers perceived their job as managing the PBS program for Juzi Company and the parent company. Indeed, they were employed by the parent company and sent to Jinhua to establish Juzi Company. They perceived Juzi and their parent company as professional PB service provider and regarded governments as their clients. This suggested a strong corporation logic in the organizational identity. The manager commented the company differences from other operators: “we [our company] are professional and we have well-established managing practices and process to manage PBS programs.” (JZ1)

At the same time,. In addition, one manager mentioned, their final goal was “to see public bikes to replace cars in every street of the city” (JZ1). This showed the social entrepreneurship perspective and their public bike community identity, which suggested the non-profit mission from the community logic.

Table 9 Institutional logics of Jinhua Juzi

Juzi	State	Corporation	Market	Community
Organization Identity/ Root Metaphor	Public welfare for citizens (a form of social benefit and part of public transport) (i) Company declares the PB program as a means of public transportation	Corporation function; Bureaucratic roles for individuals (i) Company established by parent company (i) Professional PB service provider		Welfare service contributor (i) Goal: to have public bikes in every street of the city & replace cars
Source of Legitimacy	Governmental approval (i) To improve public welfare, public traffic & environmental protection (i) Subsidy [service fee] allocated by the city-run investment company (i) Government media's promotion	Market position of firm (i) Specialize in operation and have experience; Parent company's technical support (i) China's first government's outsourcing PB; to develop this operating mode	System of market exchange (i) Service Contract for profit	Stakeholders' unity of will (i) Implementation & promotion support from residents & government agencies
Sources of Authority (Power Structure and constraint)	Governmental bureaucratic domination; Politician engagement, law & regulation implementation (m) Government & residents evaluations; government-issued regulations, the PB service contract (m) Suggestions from MPC & MPPCC members	Board of directors, Top management; Corporate culture (i) Parent company authority: bike supply, core manager employment etc. (i) Company operation principle: serve users well & answer people's rental demand (i) Company reporting structure		Normative expectations and commitment of community stakeholders (government agency, PB users and business partners) (i) Resident engagement
Basis of Attention	Status of interest group (i) Respect government's PB stations planning (m) Company works close with the government	Status in industry; Investment in organization (i) Operation efficiency; program expansion		Investment in community (i) Residents convenience & flexibility
Operator's Strategy	Increase public good; public service (m) Measures to improve citizen satisfaction (m) Work close with government	Improve size & diversification of firm; Client service, value creation (i) Promote Jinhua operating mode to other cities; expand business (i) Diversify through the PB platform		Increase members status & honor of practices; collective action framing (i) Invited users to meetings (i) Regular volunteer support

Note: The paragraphs with (m) are summary from media coverage, (i) are summary from interview. The words in bold are the relative dominant logic according to the data.

Source of legitimacy

The major source of legitimacy was the support from the government and its agencies at the establishment of the program. Jinhua's PB was born from the city's plan to build a low-carbon environment-friendly city, to ease traffic congestion, protect the ecological environment and to improve people's health (Jinhua Government, 2015). The project was one of the ten promised public livelihood projects announced at the MPC in 2012 (Jinhua Government, 2015). The PB can also be perceived as a strategy for improving local tourism industry, urban service and business development. The annual subsidy [service fee] was allocated by the city-owned investment company. In general, the state logic was strong in supporting Jinhua's PBS program.

The government frequently uses its media to disseminate information of the PBS program. This helped promote the PB to the residents. According to the manager:

The government gives us a lot of support such as frequent publicizing on its media channels. After all, we don't have communication channels as good as the government. Public media helps promote the good sides of our PB and people know us better, especially about the usage of bikes. Through the public media, residents give feedback easier too. (JZ1)

In terms of the operation, Juzi's parent company provided strong technical support during station construction and operation. Under the supervision of the parent company, Juzi company worked for Jinhua's government while also planned to apply for the PBS program tending in nearby cities. This aligned with the head corporation's PB service business expansion plan (such as gaining new contracts and running PBS programs in many cities). This suggested the corporation logic. Related to this, a manager commented on the company's profit generation. He said, "Our company did the budgeting before applying for the contract and thus the annual service fee should be enough for the company."

In addition to the above, the managers recognized the community support. He credited the supporting factors such as the active coordination of government agencies and administratives of communities for the program implementation and promotion, and the many good advice provided by the residents.

Sources of authority and constraint

According to the announcement from Jinhua Urban Administrative Enforcement Bureau (2014), Juzi followed a model characterized as "overall coordination and planning", "market operation", "outsourcing service" and "government supervision". The major constraint was government's control of finance. The manager said, "The government allocates the annual payment based on the quantity and quality of the

devices and operations” (JZ2). The manager commented that Jinhua’s government did a good job in supervision, “It often gives us instructions based on people's suggestions to improve the operation and service”. Many MPC deputies and MPPCC members as well as the general public also gave suggestions to the government (Jinhua Government, 2015). The City Urban Administrative Enforcement Bureau (2015) monitored the program’s overall operation according to two regulations and the PB construction and service outsourcing contract. There two government documents on PB management were: the *City Appearance Standard* and the *Jinhua City Public Bicycle Transportation System Operation Management Regulation (tentative)*. The government’s goal was to improve the PB’s management quality to provide better public service to the citizens. One manager mentioned that the government’s supervision was very strict, but she also admitted that they worked better under strict government supervision (JZ2), which suggested the state logic. As stated in the interview:

The assessment can happen at any minute or even any second. For example, if the site is not clean enough, they will deduct our performance point, which means reducing the money our company can receive. (JZ2)

Juzi Company’s departments worked in coordination and the general manager reported to the parent company chairman. General planning was decided by the chairman of the parent company (JZ2). The manager commented:

The parent company takes charge of core manager employment as well as coordination of internal resources (training and technical support). But decisions about the daily operation of Jinhua are decided by our company [Juzi Company]. [...] The operation principle of our company is to serve users well and to answer people’s rental demand. (JZ1)

Juzi Company’s manager also mentioned public involvement and supervision. A manager said, the residents would report to the government channels and their satisfaction greatly affected the company’s operation.

Basis of attention

When asked about its planning and strategy for PB’s development, Juzi Company stressed the importance of government’s financial support and policy implementation to reduce the external constraints. One manager commented on some residents’ resistance to PB infrastructure, “we are only a construction company, we are not a law-enforcing agency. We have no power. Only the Administrative Enforcement Bureau would be able to negotiate with residents” (JZ2).

Working close with the government was claimed on its parent company’s website (“Green-Tran Company Introduction”, n.d.). Two Juzi’s managers agreed to the government’s strict monitoring.

According to them, the government would also maintain its supervision to ensure the service quality. The deputy director at the City Management Service Center said, "we [the government] will continue to strengthen supervision over equipment maintenance and site operation, and strive to make the public bicycle system more convenient for residents" (Ni & Xu, 2015).

The above suggested the state logic of the organizational attention. Related to the state logic, one manager said, the program focused on satisfying residents' need and that "the PBS program operation is the most important task" of the company. In addition, another manager said that the chairman of the parent company had talked about expanding into other business sectors through the PBS program (JZ2). However, she said that there was limited information about the planning and could not provide further details. The current and future company focus suggested the industry focus from the corporation logic.

Juzi Company keeps improving the program and work with other parties as one manager stated, "the convenience and the flexibility for citizens is important" (JZ1). For example, as requested by the government, Juzi Company worked with another company to develop a mobile application for easier access to rental information (Huang, 2015). This focus on program improvement suggest not only the state logic and corporation logic, but also the community logic as the company contributed to community good beyond their original contract.

Operator's strategy

As mentioned, Juzi's manager revealed that the company kept exploring ways for operation improvement with focus on users' convenience. Many measures originated from its cooperation with the government, which suggested the state logic. The company adopted some measures from successful GR programs, such as the ones in Hangzhou and Taizhou. These measures were well supported by the government; they include setting up berths particularly for broken bikes and parking-lot station for efficient rental service (Huang, 2015). Juzi also adopted bikes of higher quality than normal PBS programs for residents' biking experience. Given the increase in public demand for more parent bikes (with baby seat), the government communicated with Juzi to increase the proportion of the parent bikes. In 2015, 10% of the bicycles were parent bikes. Company also upgraded the visualization of the query system as well as the bike return function. Residents could search information about the PB network as well as useful information on weather and transport condition. They could return bikes under weak internet connection. Also the general manager mentioned that Juzi Company and the City Administration Bureau were working on big data analysis to solve problems such as tidal flow-like traffic (Huang, 2015).

Internally the company made use of its human resources and planned to encourage employees to look for lost bikes. At the same time, Juzi Company was also interested in expanding its business sectors

and market geography. The two managers revealed that Juzi was interested in the PB tenders near Jinhua area while the team at the headquarter (parent company) welcomed projects across the nation:

We hope to promote Jinhua operating mode to adjoin cities. Our operation mode is completely different from counterparts [...] the group company wants to expand the business nationwide. [...] We will expand our business nationwide as long as it's possible and under the same operating mode as of Jinhua. (JZ2)

Indeed, according to the parent company website, Jinhua's PB was the parent company's first PBS program and served as a successful case for their marketing. The manager also mentioned that the parent company was planning to diversify its business through PBS programs (JZ2).

Juzi Company was also active in the community. The company invited some PB users as citizen representatives to give suggestions to improve PB with the supervising authority. Juzi also welcomed regular volunteering such as college volunteers in Jinhua to help with the station maintenance and PB promotion. The manager said, "There were about 100 volunteers every week" (JZ2). Public promotional events were held every month with media and related organizations (such as government agencies). These collaborations also reflected the company's community logic.

Organization response towards multiple institutional logics

In general, the company has many external constraints and the managers hoped to have more support from the citizens and its supervising department.

The manager concerned about the bike lost and PB equipment damage (some are caused by teenage students), leading to residents' inconvenience and dissatisfaction. The company had no good solution, "we send those kids to a local police station but cannot file cases for those under 16 years old." Nevertheless, vandalism will increase citizen's complaint, which further hinders the company's performance evaluation and finally, less payment from the government. Another issue the manager mentioned was the unexpected damage without compensation, e.g., when public road reconstruction damaged the PBS program's underground wires, no party would compensate Juzi.

Both of the issues exposed the lack of recognition of the publicity value of PBS programs. The PBS facility was not well protected by the government as public property. The cost fell on the private operator who received service fee without estimating this cost. The issue suggested the public interest (state logic) conflicting with the interest of the private operator (corporation logic and market logic).

Another development constraint was the lack of space to increase docking berths at existent docking stations. Juzi Company bared pressure to maintain bike balancing and transferring to achieve government requirement.

Juzi Company claimed to pay attention to service improvement and creating value for the PB users and the government. One manager responded that support from the citizens and government was the most important resource for PB's operation (JZ1). Juzi respected the government instructions and supervision. Thus, Juzi's organizational response towards conflicts with the state logic is a form of "Acquiescence" strategy, as it voluntary complies with external requirements (Oliver, 1991).

Besides supporting the corporation, its strategy supported also the state logic and community logic. Juzi's strategy also oriented to the strategy of logic combination. The parent company invested in R&D and Juzi wanted to expand the operation to nearby cities. Also, Juzi advocated the publicity of PB to gain legitimacy from the government and the citizens. As said by the manager: "We tell the government that Public bike is going to be the fourth means of public transportation" (JZ1). Public promotion events were often held every month to engage citizen interest.

Case 4 – Huangyan PB

Besides the provincial government call for PBS development, in 2010, some media articles had proposed PBS programs in Huangyan (Gu, 2010). Later in 2010, with proposal passed at the Municipal People's Congress and People's Political Consultative Conference, Taizhou's municipal government (represented by The Housing and Urban Planning Bureau) approved the PBS program implementation in its governing district, Huangyan (Huangyan District Government, 2012). Huangyan district government expected PBS program to resolve "last mile problem" and traffic congestion. The government delegated a working group formed by members of multiple departments to lead the PB planning and construction.

Huangyan government funded Huangyan Public Bicycle Development Limited Company (Huangyan PB). The government agency guaranteed both financial and infrastructure support such as reserving land for bike station and providing network and other supporting facility (Huangyan District Government, 2012). The district's finance bureau allocated annual subsidy according to the company's budget and the auditing bureau conducted annual audits.

Huangyan PB Company had been increasing the number of bikes and stations according to the government planning (Cai & Xu, 2016). The bike network increased from 1500 bikes and 75 stations in 2012 to 7,000 bikes and 155 stations in 2015. About 500 bicycles had a baby seat. The company saw 2.9

times of daily usage per bike during the first quarter of 2014 (winter season) and a busiest day could reach 7.8 times per bike (Cai & Xu, 2016).

Table 10 Huangyan PB Program Growth

	2012-12	2013-12	2015-10
Number of Bikes	1,500	4,000	7,000
Number of docking stations	75	120	155
Time length of free ride	1h	1h	2h
Daily usage times per year	≈ 4,657	≈ 9,468	≈ 18,164
Membership cards	18,000	> 30,000	> 73,000

The government’s district-wide PBS program have been expanding and improving since its launch. In 2016, the company announced that they will add ten more stations (Cai & Xu, 2016). At the beginning of the launch, some residents complained about the bike quality, thus, the company asked ten citizens to try new bikes and surveyed more than 1500 residents to upgrade the quality of the bikes three times (company internal document). Residents can access information on the company website about the PB network. In mid-2015, the company also launched its WeChat platform (mobile phone app) to provide localization information of bikes and stations for the users. The manager commented in the interview that they hoped the program would be more convenient for the residents to further area for leisure activities. And the program continued to expand.

In the interview, the manager mentioned that the government has not provided long-term planning on how exactly the PBS program would be (HY1). Nevertheless, he believed, “as long as people are satisfied with the program, the PB will continue to exist”. In addition, the municipal government’s possible plan was to integrate the three PBS programs of the three downtown districts (Li, 2013). Currently, residents could use all three programs by having one citizen card. But they could not return the bike to another district. Although media coverage showed that the integration was expected by the municipal government and residents, it was still hard to know when it would take place. Huangyan PB’s manager explained: “each district government’s finance and its operation towards PB is independent” (HY1); also, the decision-makers of different programs held different opinions about the operation mode (Li, 2013). Another program’s manager believed that operation by the professional company eased the burden of the government. This manager’s idea was different from the managers of the other two other districts’ programs.

Institutional logics of Huangyan PB

Table 11 Institutional logics of Huangyan PB

Huangyan	State	Corporation	Community
Organization Identity/ Root Metaphor	Government bureaucracy, Public service (i) Public livelihood program (i) Convenient to people, not for profit.	Corporation as hierarchy (i) State-owned company (i) Construction & operation work	
Source of Legitimacy	Governmental (and political institution's) approval (m) Government mandate of public livelihood (i) Active engagement of authorities	Market position of firm (i) High cost-performance efficiency	Stakeholders' unity of will (i) Community support: government agencies engagement
Sources of Authority	Governmental bureaucratic domination; Politician engagement, law & regulation implementation (i) Government leadership and preset principle (i) Government finance structure and supervision	Top management; Corporate culture (i) Government-run company structure; Government organization & service culture (i) Company future development beyond government-set mission	Normative expectations of community stakeholders (i) Importance of user feedback (i) Residents can ask for PB stations in their community
Basis of Attention	Status of interest group (i) The provincial and municipal government mandate and requirement (i) To benefit the vast majority of citizens (i) Provide long-term service for citizens; service awareness as most valued employee training	Status in industry (investment in corporation) (i) Rental management and service quality	
Operator's Strategy	Increase public good/public service (i) Follow government mandate & suggestions; increase public convenience: e.g., launch WeChat platform and support the unifying of the city's PB programs (i) Initiate communication with government agencies	Increase size & diversification of firm; Client service, value creation (m) Make use of available resources to gain finance revenue (i) Plan for company development	Increase status & honor of members & practices; collective action framing (i) Participate in public events with other non-profit (i) Encourage employee volunteering to promote company culture & reputation

Note: The paragraphs with (m) are summary from media coverage, (i) are summary from interview. The words in bold are the relative dominant logic according to the data.

Organization identity

According to the interview the state logic was suggested as the two managers agreed that Huangyan PB was a program led by the district government (HY1 & HY2). The operating company, established by the government, took care of the program coordination, construction and service maintenance. The company was responsible for the PB's service quality and operation which had high usage rate. They acknowledged that the PB service was "to serve the public commute and improve the environment". They perceived their company as a corporation to manage the "government's livelihood project". One suggested that the success standard should be "evaluated against the achievement in public livelihood comprehensively" (HY1).

The company was embedded in the government agency and relied on the government support. For the managers, they were employees of the government-owned company and report to a government agency. This suggested both the state logic and the corporation logic. One manager mentioned:

I worked in the housing and construction system at that time [before joining the company]. It is a big system consisted of many subordinate units and state-owned enterprises. In this big system, insiders can rotate to different departments and they are interactive and I was appointed to be here. (HY1)

Both managers supported the importance of the government in PB development. One said, "PB is actually associated to [government] macro-control [...] It is hardly possible for our company to utilize social resources [private sector] on our own. We need at least some minimal government policy guarantee." In sum, the company's organizational identity followed a mix of state logic and corporation logic with stronger state logic suggested in the data.

Source of legitimacy

The major sources of legitimacy were the government and its agencies. As the government led and subsidized the PBS program, the PBS program itself was strongly affected by the policies and support from the government agencies. The authority implemented the Public Bike System to achieve long-term economy development, solve traffic congestion and "last mile problem" (Huangyan District Government, 2012). The program also focused on satisfying residents' need. Indeed the PB aligned with the government's other public projects, such as "the slow-traffic system along the river area" mentioned in the interview (HY1). In this case, the state logic was very strong for Huangyan's PBS program. One manager mentioned, "[PB's popularity is] its convenience to people and it is not for profit" (HY1). The corporation logic was less suggested from the data. But the manager commented that their program focused on operation and valued user satisfaction and program enlargement (HY1). Regarding inviting

external aid such as sponsorship and other private sector engagement, the manager says: “there are two criteria: the social actors’ willingness and the continuity of their input. And this [private sector’s motivation] is linked to the state’s macro planning”. The manager also proposed to standardize the industry: he thought PBS operation service could learn from the property management sector, which “used to be in disorder but later grew orderly with pricing system according to service and geographical locations” (HY1). The manager implied that besides political call, the industry’s capitalization could contribute to PB organizations’ development. The manager’s notion of industry development suggested his ideas of the corporation logic as well as the market logic.

The community logic was also suggested in the data. Firstly, several government agencies were actively involved with the PB planning, forming a community effort. Secondly, residents develop a biking habit as “they like to ride a bike with their family or friends at dusk as short-distance travel or on weekend for fitness and leisure”. This suggested the program popularity in the community.

Sources of authority and constraint

As mentioned, a provincial document called for PB implementation in several cities including Taizhou. The program was primarily proposed at Huangyan district’s MPC and CPPCC meetings and its implementation was coordinated by a working group. According to the manager (HY1), this working group included government departments like the Development and Reform Commission, the Bureau of Finance, the Housing and Construction Bureau, the Transport Management Bureau, the Public Security Bureau, the Bureau of Environmental Protection, the Administration for Industry and Commerce and the Engineering Construction Affairs Administration. After the first planning, the PBS program was mainly supervised by the Housing and Construction Bureau. The supervision included appointing PB managers from the public infrastructure sector and setting principals and goals for the PB operation. Thus, the priorities included reducing large pedestrian flow in the downtown area and integrating with other public transport to provide convenient traffic to the residents (HY1). For example, the municipal government expected all the three districts’ programs provided two hours of free ride time.

The program’s finance was also controlled by the government. Both managers believed that the program needed corresponding support from institutions, standards and systems. One of them said:

At the end of each year, we figure out how much funds each project needs for next year, and then we will report the budget to the financial authority, who will make a further review of the budget. [...] I think this sector [PB] should be guided by the government and supported by policies support. (HY1)

Only after the government issued the announcement would the company executed. Nevertheless, the company could give professional suggestions to the government planning and during the construction and operation.

Internally, the management shared strong belief of serving the citizens via company management. To provide good service, the manager mentioned about their regular employee training, the rigorous performance evaluation and reward system (HY1). According to the interview, the operation decisions were designed by the general manager and communicated through manager meetings. Besides the general and middle managers, the middle manager meetings included representatives of the company's Youth League and Communist Party Committee. The league and committee representatives assisted the promotion and advertisement for the PB Company. This implied an incorporation of political resources within the company structure (corporation logic and state logic). Also, as a state-owned company directly supervised by government agencies, its company culture had a strong influence of China's communist party and Youth League. For example, the party and league branch at the company-level organized employees' activities and volunteering, such as cleaning public space. They reported these activities to the higher-level party and league branch for recognition.

The state logic constituted the main constraint as well as authority. Meanwhile, the community logic also posed as source of authority in the PB management. The company paid attention to citizen demand. For example, Local residents could request PB stations establishment in their community. The company recruited volunteers through public media to find the most popular bikes. The manager said, "If citizens have suggestions and complaint, the government and our company have to take action. [...] Our company needs citizens' support" (HY1).

Basis of attention

The manager paid attention to political acceptance and social benefit under a strong state logic. The manager said:

Our company followed the principal set by the government from the beginning, which is 'caring people's need, benefiting people's livelihood, improving residents health, improving the environment and promoting social harmony'. [...] The environment and social benefits are what we hope to achieve, including encouraging residents to use PB. (HY1)

The nature of our enterprise is how to provide the long-term service...the most important employee training is service awareness. [...] We want the vast majority of citizens get the benefit ... after all, PB is for the public. (HY1)

In the interview, the manager's recognition of program management suggested the corporation logic. Both managers said that the PB rental management and service was the most important. Other important tasks included program promotion (HY2) and new service provision (HY1).

Operator's strategy

The manager stated that they had been working for the government mission and later developed company's future plan (HY1). First of all, the company worked to support the government in public transportation development. The manager mentioned providing welfare to the citizens such as reducing membership fee for low-income residents and supporting the integration of three PBS programs of the city (HY1). The company followed Taizhou city's demand to install docking stations at district borders so that users from another district could borrow bikes right after returning bikes in the original district (Cai & Xu, 2016). Huangyan PB Company took initiative to maintain communication with government agencies:

We take the initiative to communicate with them: the supervising bureau and other related government agencies as well as the Municipal People's Congress and People's Political Consultative Conference. [...] since we often communicate with them, it is not difficult for us to get funds. (HY1)

As mentioned earlier by the manager, in 2015 the company extended the free ride time to two hours and reduced half of the charge for PB card reissue (HY1). This was part of the measures to align with other programs in the city under the demand of the residents and the municipal government.

Then the company also thought of operating other public projects such as parking-lot management service and short-trip service. The company improved its service and leased out docking stations' space to merchants to increase operation revenue (Huangyan Public Bike Co. Ltd., 2012). The manager revealed:

The company will strengthen the interchanges with other public transport, upgrade the existing density in the areas, gradually extending the PB network and integrate to the municipal infrastructure. That will make it more convenient for citizens to travel and to have more choices of transport. (HY1)

It also encouraged public engagement and welcomed citizens' opinion through government hotline and other media channels including the company's own hotline and website. As mentioned, the company invited residents to improve bikes via trial usage and survey. Also, the company coordinated with other local non-profit organizations or companies for events such as Earth Day, World Environment Day and activities that were related to community service or low-carbon practices. The manager said:

We want to strengthen the corporation culture as well as company reputation. We will participate when other organizations invite us. The managers (or the Youth League and Communist Party Branch at the company) also organize employees to participate in social service activities. (HY1)

As these activities represented the company social engagement, these company's actions could increase community acceptance of PBS program and the company.

The structuring of the communication team at Huangyan PB Company also supported both the state logic and community logic. The general manager led three teammates and two of them were responsible for communication with the communist party institutions. This showed the company's tight connection to the political system (state logic). The structure strengthened the company's relationship with the political institutions, which also resulted in stronger collective impact.

Organization response towards multiple institutional logics

In general, according to the data, Huangyan Company's organizational characteristics suggested state logic. The characteristics were not strong in corporation logic and not much in market logic. The company's strategy mainly aligned with the state logic.

However, the manager was also concerned with the pressure from the citizens and the political planning of PBS. He said, "Public PB Company should not be responsible for the PB facilities expense beyond the government planning". He mentioned about the high cost for greater welfare provision compared to limited government finance:

[comparing to other PB companies] our performance is better and our usage rate is high, thus our costs are far higher than some programs. However, our government may not want to invest more than what other governments invest. In the long term, I'm afraid the industry will be at stake. (HY1)

Given the perspectives of both sustaining the PB company management and the public resources distribution, he hoped governments understand the cost of PBS service and did not pressure the GR operators to fulfill all community demand. This would ensure the operator performance under the limited budget. This implied the variance between the three sources of authority, the community logic, the state logic and the corporation logic. In addition, He doubted private operators could provide good service. He believed that private operators would maximize profit and shared less accountability as GR operators. This thinking could also support the manager's thinking about PBS's state logic.

In general, Huangyan Company did not face much institutional conflicts. It adopted strategy of acquiescence when facing government pressure on cost control and service improvement. The manager

said, “Every year the MPC and CPPCC meetings will generate some proposal on PBS service improvement, we need to try to implement these proposals” (HY1). He commented on this political pressure as something “we have to obey as a state-owned company.”

The company also expressed the state logic by giving regular feedback to the government agencies and maintaining relationship with these authorities. Huangyan Company also took some initiatives. It went beyond government’s basic requirement (solving commute problem) and included more accountability on the government’s expectation, such as social and environmental benefits provision. These efforts can be viewed as a way to obtain more legitimacy from both the government and the community. In this regard, community logic is complementary to the state logic. In addition, the company was very active in organizing employees to participate in public charity events. This method could increase employees’ volunteering spirit and improve the company’s reputation, and thus promoting the image of the PBS program as well as Huangyan Company. The company also combined some elements of corporation logic as they planned to incorporate other business activities for their company development.

Case 5 – Jiangbei Lvhang Public Bicycle (JLPB)

In March 2014, Jiangbei Lvhang Public Bicycle Co. Ltd. (JLPB) was funded by Pukou Transportation Construction Group. The Pukou Transportation Group was solely owned and supervised by Pukou government (Pukou Transportation Group, 2014). The Transportation Group had several subsidiaries for the district’s traffic infrastructure projects with the goal of improving regional development. JLPB took charge of the PB implementation and coordination including the management of the system construction, operation and customer service. The company mission was straight-forward from their online employee-recruitment announcement:

We support sustainable development of low-carbon city and green travel. We build and manage the public bicycle transportation system. Also we pay attention to company’s healthy and sustainable development. (Jiangbei Lvhang Public Bicycle Co., 2016)

One manager reported one of their main goals in the interview, “We have to focus on the details and provide the best service to the residents” (JL1); in other words, they “carefully manage the bike distribution, the equipment and facilities, and employee scheduling” (JL1).

In December 2014, the number of public bikes in Pukou was about 1,300 with 50 bicycle docking stations and the daily usage was 2300 times (Cheng, 2014). Since January 2015, Pukou district started the second-phase’s construction of 73 new docking stations. According to the interview, by May 2015, there were already 143 docking stations and more than 4,000 bikes with the plan to expand the following year

(Nanjing Transportation Bureau, 2015). In July 2015, 27000 membership cards were issued and the total number of bikes reached 5300 with average daily usage of 11000 times (JL1).

Table 12 Jiangbei Lvhang Public Bicycle (JLPB) Program Growth

	2014-07	2014-12	2015-07
Number of Bikes	800	1,300	5,300
Number of docking stations	46	50	143
Time length of free ride	1h	1h	2h
Daily usage times	N/A	2300	11,000
Membership cards	N/A	6,000	27,000

Since September 2014, the city’s Transportation Bureau planned for restructuring all the districts’ PB programs to be managed by the municipal umbrella company (Mao, 2014). Starting from April 2015, the free ride time changed from 1 hour to 2 hours. Residents benefited from the same pricing around the city with one single card.

Two managers said that they acknowledged the city’s unifying plan, but they did not expect much change in terms of daily tasks. They would wait for more information from the government.

Institutional Logics of JLPB

Table 13 Institutional logics of JLPB

JLPB	State	Corporation	Community
Organization Identity/ Root Metaphor	Government bureaucracy, Public service (i) Public service relies on the government's full support (i) Different from the PB operated by private enterprises	Corporation as hierarchy (i) The PB project is operated by our company (i) Subsidiary of a state-owned company	Member of community, Community social service (i) Civil responsibility in supporting PB program
Source of Legitimacy	Governmental (and political institution's) approval & regulations (i) Municipal People's Congress involvement (i) Government regulations and operation guidelines	Market position of firm (m) Subsidiary of the government-owned company with mission to develop public transportation infrastructure	
Sources of Authority	Governmental bureaucratic domination; Politician engagement, law & regulation implementation (i) Supervised by the Transportation Group & state-owned company management regulations (i) Municipal government planning (i) Rely on government' subsidy & coordination	Top management; Organization culture (i) Parent company approval before implementation (i) Operation practice code and employee evaluation system for work efficiency and service satisfaction	Normative expectations of community stakeholders (government agency, PB users and business partners) (i) Residents pay high attention to the program
Basis of Attention	Status of interest group (Public service of the State) (i) Reduce environment pollution & the last-mile problem; citizens satisfaction & convenience (i) Support the national standardized public system (i) Our primary purpose was to meet the needs of citizens	Status in industry (investment in corporation) (i) All departments support PB operation (i) Revenue generation and service expansion	Investment in community (i) Resident satisfaction and communication with Residents. (both community logic and state logic)
Operator's Strategy	Increase public good; public service (i) Goal: Support government's centralized planning (i) Coordination of public resources: Work with governmental bureaus and institutions to promote PB (m) User service priority	Increase size & diversification of firm (i) Firm structure change: to merge into the municipal PB company as district branch (i) Promote group rental service	Increase status & honor of members & practices; collective action framing (i) Promote to general public & institutions; update on social media

Note: The paragraphs with (m) are summary from media coverage, (i) are summary from interview. The words in bold are the relative dominant logic according to the data.

Organization identity

As per the identity of the company, the company had a strong logic of state as the PB Company was a product of the government's strategic planning for transportation development and it kept it as the company mission. JLPB's Office managers said, the goal was to improve environment, promote green travel, and resolve the 'last-mile problem' (JL2). According to the media, on one Nanjing MPC meeting, a committee member, Chen Liqin, also commented PB as a citizen livelihood project and a public welfare project (Lv, 2015). The managers considered the company as a subsidiary of a state-owned and government-led company. They compared themselves with private PB program, as a government-led non-profit initiative, they declared the program as "public service" and "public welfare" (JL1). One manager said, "All our work is to satisfy the citizens. [...] We are doing public service, which relies on the government's full support. [...] Our program is different from the ones operated by private enterprises."

Meanwhile, other logics were also suggested from the interviews. The corporation logic was suggested as two managers perceived that their company as subsidiary of the district Transportation Group (the parent company) and had a certain degree of corporate independency in terms of internal operation management. In addition, one manager also mentioned the community logic aspect of the PB program. He thought that community effort should be taken to support the community good (PB program) and that government agencies as well as companies and residents should share responsibility in supporting the PB program: "Everyone is responsible for contributing to PB, as this is a public program. It is good for everyone in the society" (JL1).

Sources of legitimacy

Governmental (and political institution's) approval and regulations were the main sources of legitimacy. PB was a state-led initiative that the municipal government proposed in 2009 to accelerate the construction of urban public transit (personal interview with Mr. Chen, the Deputy Director of the Public Transport Department of the Nanjing Transportation Bureau, 2015). The proposals at the People's Congress (the highest power of the local political system) and the city's planning both stimulated and regulated the development of the PB (Nanjing Transportation Bureau, 2015). Most media coverage stated that Nanjing's PB was a public product that complements the public transport to solve the "last mile problem". As one media mentioned, "PB is a service for the public's convenience, a program for people's daily life and to provide citizens with a greener way to commute" (Cheng, 2014).

Meanwhile, corporation logic was suggested through the formation of JLPB by its parent company. JLPB can utilize the expertise and organization network as the parent company was a state-owned corporation to develop local transportation infrastructure (Pukou Transportation Group, 2014).

In terms of community acceptance, the manager thought that the citizens and the government supported Pukou's PB: "The use of PB bikes is popular and many residents proposed to build stations in more locations" (JL1).

Sources of authority and constraint

The source of authority was strongly in line with the political and governmental bureaucratic procedures, which suggested the state logic. Firstly, from the PB construction planning to the company management structure, the company was supervised by their parent company, the latter reported to a state-owned non-commercial company and also the other political mechanisms including the government body of both the district and the municipal levels (JL1). A lot of strategic decisions were made from the top governmental hierarchy, such as the extension of free ride time length and the number of PB docking stations (interview and media coverage). One manager pointed out that the unified price and free ride time was set by the municipal government without asking JLPB Company for opinion (JL1). Although the manager thought 2 hours were too long, his company had to obey the government decision.

Secondly, the management of the company respected the corporation hierarchy: JLPB only took charge of the implementation and operation management of the PB program while reported all other decisions to the parent company (JL1). Internally, JLPB implemented operation practice code and a system of employee performance evaluation to ensure service quality. Externally, JLPB Company relied on parent company's capital and guidance (JL1). The main employees were hired by the parent company, for example, the director was an engineer shifted from the Public Transportation Division. However, government influence was stronger. The recent public hearings on regulation modifications were organized by the government's transportation bureau and regulation affaires department. The government also decided the restructuring of PB companies and program development.

The interview confirmed the mix of corporation logic and state logic as one manager commented, "Our Company is supervised by the Transportation Group, which is monitored by the government. Our work needs to be coordinated with many governmental bureaus" (JL1).

Besides the legal and formal authority (Weber, 1958) from the state and the corporation, thirdly, JLPB also welcomed residents' supervision.

Basis of attention

As mentioned on the website of the parent company, the goal of JLPB at its foundation was to improve the urban transportation structure, to ease the traffic congestion, to reduce environment pollution, and make commute more convenient for citizens (Company website, Pukou Transportation Group, 2014). This goal was in line with Nanjing government's urban public transport development, which suggested

the state logic in the company attention. The manager said, "We just center on the level of satisfaction of citizens and how to make it more convenient for citizens to commute." As mentioned, the Company's employee evaluation system was centered on customer service metrics such as number of customer complaints (JL1).

Due to this state logic context, the Company spent almost all the energy in maintaining the PB program operation and does not intend to invest much time or capital into other areas such as marketing or advertising management. As the manager commented:

We will ask an external advertisement agency to operate the advertising... I don't know about the advertising business and I don't think this work is to be done by us, a government-led company (JL1).

At the same time, the company thought about group rental as revenue generation and service expansion (JL1). This may suggest the attention on service development, but there was very few other data related to the corporation logic.

In general, JLPB's attention was mainly based on the state's attention on citizens' commute convenience. The manager also embraced the community logic of serving the PB users and regarding them as citizens sharing responsibility to support PBS program (JL1). The manager said, "This is a public good project, every member and institution of the society should support it. It is different from charity." He also recognized the importance of communication with the residents: "our citizens pay much attention to the PBS, they call us or send us message through weibo. So we put some effort on our weibo."

Operator's strategy

JLPB's supported the government's planning of increasing PB infrastructure accessibility in Nanjing city such as unifying all the districts' PB programs. JLPB merged into the municipal PB Company and served as a district branch (Nanjing Transportation Bureau, 2015). The merge would be an increase of size and power of the municipal PB Operation Company and JLPB may gain higher organization power. However, the merge was more from of a state logic as it was more a government order. The manager referred the general organization structure to the local public bus companies (JL1). Both of which were under the same group of state-owned public transportation companies.

In terms of the internal management, both managers said that all of JLPB's departments supported the PB operation. As commented by one manager, operation details were standardized in their work manual and supervisors evaluate employees' daily performance to ensure service quality (JL1).

The strategies were examples of the state-oriented. Indeed, when facing challenges, the manager seemed to expect more government engagement rather than company initiatives. The manager said:

We as a company have no [political] decision-making capability. If our docking stations are occupied or damaged, how can we manage? There should be a policy for this. [...] We can only raise some suggestions and implement the government's decision. (JL1)

The lack of enterprise initiation may be due to the authority constraint for the organization and the PB program. JLPB was a state-owned company supervised by Pukou Public Transportation Group, and the latter was under direct supervision of the local government. The manager explained:

It is true that the citizens voice a lot of expectation to us. But I can only report to our immediate superior [parent company] and cannot bypass it to talk to the government directly or to do any planning. It must be that the government has decided to operate for the third year then can I implement. I have no decision-making power. (JL1)

One point to be noted, the "satisfaction of citizens" was mentioned several times by the two managers during the interviews. One manager illustrated:

If our PB facility poses inconvenience to citizens, after evaluating the majority opinion, we will remove the facility to another location. It is because our work is for the citizen convenience. Our practice should not create negative effects on the citizens' life. (JL2)

At the same time, the management also paid attention to the community engagement. The manager said, from previous site visits of some PB programs, the Company learned to make use of weibo platform to communicate regularly with the public (JL1). According to my observation of 27 PBS companies in 2015, JLPB's Weibo (<http://weibo.com/u/5209470390>) was one of the most updated ones among several PB programs that had weibo (Note 5). The company also took initiative such as on-street marketing of green traveling and recruiting residents to join the PB program. They went campus visits and recruited young people to work part-time or volunteer for the program. This showed that besides serving well PB users, JLPB would like to encourage more community support. Similar effort included asking private land owner's permission to construct PB facilities and demanding citizen contribution in facility maintenance. These examples suggested that the company's strategy also held the community logic.

Organization response towards multiple institutional logics

In conclusion, JLPB was originated and institutionalized in the state logic. JLPB's managers support the management of the municipal government and refer their company similar to the state-owned public

bus company. While the managers do not perceive very strong conflict between the state logic, the community logic and the corporation logic during daily operation, they do feel the political pressure from the government and choose to compromise to the government' planning while raising their voice to their direct supervisor.

One manager pointed out that the unifying of pricing and free ride time was set by the municipal government without asking JLPB Company for opinion (JL1). Although the manager thought 2 hours were too long, his company had to obey the governmental decision. They do not take active initiative in influencing the authority or in raising the standard of public service.

At the same time, the manager perceived a lack of support from other community players. He thought that many governmental agencies and authorities did not know their roles in the PB implementation. He believed, "PB is a public welfare project that every member and institution of the society should support it. It is different from charity. However, currently residents only perceive PB as a social service provided by the government (and take for granted)". He points out, the lack of conscientiousness of a civil society will undermine the meaning of PB - residents take benefit of the public service instead of helping to improve it; other companies and authorities don't initiate to take more responsibility to assist the PB development. The manager's idea suggested that the importance of both state support and civil support in PBS. But the current state logic prevalence may hinder the accountability of the public.

The manager expected more parties and players to support PB program and was interested to promote a community effort. The company took the lead in maintaining communication with the public. Overall, JLPB's organizational response oriented to the strategy of acquiescence and logics combination.

Cross-Case Summary

The second part of the analysis compares the five cases to understand the differences of institutional logics and organizational responses among them. The analysis mainly answered the two research questions: (1) the perception and influence of institutional logics in the PBS operation organizations; (2) the organizational response: whether these organizations adopt Oliver's five suggested strategies or adopt a strategy of logic combination. I also compared the GR operators with PPP operators in order to study the possible influence of the two operation modes.

For the first research question, the findings show that the operators perceived multiple logics in their organizational identity, sources of legitimacy and power structure. For the second question, the strategies that operators adopted suggest multiple logics. Also, according to the degree of conflict among the

institutional logics influence, the operators may adopt various resistance. The results are summarized in the generalized table as shown below (Table 14). Table 14 indicates the institutional logics suggested in the organizational attributes (organizational identity, legitimacy and power relation) and the strategies (organizational attention and strategies). The details of the finding are below.

Table 14 Logics suggested from the organizational attributes & strategies, degree of conflicts and organizational response

Suggested logics	State	Corporation	Market	Community	Degree of conflict	Organizational response
Huimin (PPP)	○○ √	○○ √√	○ √	○ √	Medium	Compliance
To-ride (PPP)	○	○○ √√	○ √	○ √	Medium - High	Manipulation
Juzi (PPP)	○○ √√	○○ √√	○	○ √	Weak	Acquiescence
Huangyan (GR)	○○ √√	○ √		○ √	Weak	Acquiescence
JLPB (GR)	○○ √√	○ √		○ √	Weak	Acquiescence

Note:

- (1) The number of ○ indicates the influence of a specific logic on the organization's identity and structure; ○○ indicates stronger influence of logic than ○.
- (2) The number of √ represents the logic indicated from the organizational strategies; √√ represents stronger indication than √.

Perception of the state logic

The state logic strongly influenced the five PBS operators. From the data, it is clear that the government was a main source of identity, legitimacy, and authority for PBS programs. The managers of the five companies stated that legitimacy allocated by the government influenced their operations. They all mentioned that PBS was a public service and was better off with sufficient government subsidies and

regulations support. They acknowledged governmental approval as the most significant source of legitimacy. Both the land use right and construction relied on local governments and agencies' support. Operators reported to obey local governments' planning and worked with multiple government agencies.

Nevertheless, there were differences between GR programs and PPP programs. GR program operators' organizational characteristics suggested stronger state logic as their managers believed that PBS should be run by public agency in order to ensure public benefit. While GR operators prioritized goals regarding public transport development, PPP operators (To-ride and Huimin) hoped to incorporate their company's value and business strategy in PBS programs. According to the data, Juzi (PPP) and the two GR operators supported government's ownership of the program and focused on citizen service; all claimed to have been working closely with government agencies and the governments also showed substantial support for their programs. Daily operation updates about these three programs were publicized through both the government-owned media and the operator's channel. However, Juzi (PPP) also mentioned about their future business diversification as part of the parent company's strategy (JZ2). And the other two PPP operators wanted to take more ownership of the programs and promote their respective company value, such as cycling culture (To-ride) and positive company image (Huimin).

While the GR programs' managers perceived the governments (or public agencies) as their employers, supervisors, and regulators, PPP programs' managers regarded governments as regulators, business partners, and clients. GR operators' key managers were hired by state-owned companies (or government agencies that executed government planning and coordinated PBS implementation). Compared to GR operators who fully obeyed government decisions, the two PPP program companies (To-ride PB and Huimin PB) perceived government requirement as not only political demand, but also business opportunity and adopted business negotiation during contract execution.

Perception of the corporation logic

The data suggested strong corporation logic. All the five programs' managers identified themselves as managers of their respective companies, and the internal management of their company followed a corporation structure with department coordination and reporting system to higher-level managers. All the operators performed employee performance evaluation, employee bonus, and professional training.

However, the data also suggests differences among GR operators and PPP operators and PPP operators seem to perceive more corporation logic in their organizations. The two GR operators' corporation were tightly linked with state-controlled mechanisms such as municipal budget audit and government recruitment. GR operators did not have a particular department for marketing or business development. GR programs' operators did not intend to diversify from the PBS programs and they hoped

to continue to maintain service standard by increasing internal efficiency to achieve their mission as a state-owned company. For PPP program operators, they were more active in R&D investment, business diversification, and market expansion. PPP operators' business vision was directed by the top management or owner, who expressed more individual freedom. As To-ride's CEO said, "The Company is based on my ideas [as CEO] and I can decide most of the things" (TR1).

Perception of the market logic

The data suggested that the market logic affected PPP operators but did not affect the two GR operators. GR operators never mentioned profit as the company goal and they did not incorporate market structure inside their companies: they had no marketing department or market development professionals as the PPP operators. For the three PPP operators, their company shared goals on profit generation, either from PBS program contracts, or from business diversification. To-ride's CEO said, "Market activities brought revenue to the company, which was very important for the company." However, due to government requirement, all PBS programs did not have profitable pricing, thus the PBS program itself did not fulfill the market logic. While Juzi's contract restricted it to take care of system operation only, the other three programs could commercialize some public resources to support the PBS, such as public space rental and advertisement selling at PBS stations. However, the operators did not invest much to develop this business. There were few reasons: the profit was too little (Huimin), or, the operator was not motivated due to the lack of expertise and experience (Huimin, JLPB, Huangyan).

In general, for governments, PBS programs' market logic was mainly seen during the public bidding for construction or service provision at the beginning of the PBS implementation. Governments bought PBS service and equipment from the private sector; PPP programs' private companies sold the operation service or equipment to governments. From the company development and strategy revealed in the interviews, although the private enterprises rarely publicized their market logic, they had been exploring business opportunities. All the three PPP operators' managers implied that their original or future focus went beyond the PBS operation.

Perception of the community logic

The logic of "Community" was also reflected in these PBS programs. Also, different operators' understanding of "community" may be different. In general, the interviews suggested three different community positions of PBS operators: (1) a part of the public welfare management, (2) a form of social business, and (3) a member of a "civil society".

As mentioned, all managers thought that PBS was a kind of public livelihood for the local area, and they expected government agencies to be a part of the community supporting PBS. Besides working with

the government, these operators cooperated with other social groups to promote green commute and environment protection. For example, Juzi Company maintained good partnerships with public institutions and volunteer groups which increased the company legitimacy as a civil service provider.

Besides seeing the public as the community, some operators perceived their community differently: they paid attention to different groups of stakeholders and community benefits. For Huimin Operate, its parent company (Baixinjia Group) paid attention to the demonstration of corporate social responsibility and public welfare engagement. To-ride's "community" prioritized potential cyclists or bike lovers and the CEO believed that PBS should serve as a service rather than a pure public welfare (TR1). For To-ride, the fostering of a cycling culture was its primary goal. As the CEO believed, providing value to cyclists and supporting its parent company's vision was its business attention. Thus, To-ride supported the civil solidarity and wanted to have stronger ties with other cycle-related groups to strengthen the city's cycling community. To-ride tended to create partnerships with bike renters and cycling-related groups.

Another understanding of community logic was similar to the civil society engagement (Jay, 2013). JLPB and Juzi suggested that the general public should take the responsibility of supporting the PBS program. For example, JLPB's manager implied that "all the society players, including government agencies, corporations, and the public, should support PBS [...] the citizens should not take PBS for granted" (JL1).

In summary, the various understanding of "community" among operators reflected the organizational differences regarding business modes as well as partnership strategies. The managers' perceived multiple institutional logics in their organization. In general, organizational behaviors such as management structure and strategies aligned with the managers' perception of institutional logics. This illustrated how perceptions of logics influence organizational behaviors. One interesting finding is how Juzi Company as a PPP operator did not emphasize their corporation and market behaviors, but promoted state logic more.

The following section presented findings on how these PBS organizations dealt with multiple logics.

Operators Organizational Responses on Multiple Logics

Regarding organizational response to multiple logics, the data suggested that the five operators tended to adopt the strategy of logic combination. Meanwhile, their organizational responses also suggest some of the strategic responses that Oliver (1991) proposed (Acquiescence, Compromise, Avoidance, Defiance, and Manipulation). For example, JLPB and Huangyan PB adopted the strategy of acquiescence; Huimin Operate adopted the strategy of compliance and To-ride adopted manipulation. As managers

perceive logics as either complementary or conflicting, this may affect whether they combine or resist to different logics. Further findings are as follow:

Perception of conflicting logics

According to the typologies analysis, although the operators may combine several logics in their organizational strategy, they could perceive conflicts among these logics. Several managers mentioned the “conflicts” among expectations of internal and external stakeholders during PBS operation. For instance, JLPB and Huangyan’s managers implied that government decisions legitimated the PBS program but also posed constraint to their corporate management. JLPB’s manager said, “The municipal government did not ask us for opinion. [...] I also thought that the 2-hour free ride was too long” (JL1). The “conflict” lied between the political demand and the corporate management and autonomy, such as the pressure of achieving public satisfaction and program development under limited budget, which suggested a conflict between the state logic and the corporation logic. This echoes the study’s assumption that multiple stakeholders have conflicting demands towards PBS operators.

As GR managers identify their companies and the PB programs as public institutions, they tended to comply with government decisions and its political structure. According to JLPB’s managers, he could not bypass the immediate superior [parent company] to talk to the government officials or to do any higher-level planning (JL1). The manager of Huangyan PB also commented on the political pressure as something “we have to obey as a state-owned company” (HY1). These two GR operators’ management structure was embedded in the bureaucracy state which had strong state logic influence. This aligns with one of the definition of “Acquiescence” in the Oliver’s (1991) list of strategy: organizations adhere to taken-for-granted norms.

The two GR operators did not experience strong conflict between the market logic and the state logic. That is possible due to the lack of market logic in their organizational identity. As the manager of JLPB stated, “we are a state-owned company, it is not our business and profession to sell advertisements”. GR operators are not interested in commercialization development. This illustrates how managers’ perception of logics strengthens the organizational decisions.

The conflict between the state logic and two other logics (market logic and corporation logic) was stronger for PPP operators. As illustrated in the case of Juzi Company, local government’s requirement of facility maintenance conflicted with the company’s profit generation, which suggested the conflict between the state logic and the market logic. Huimin manager’s different understanding of PBS identity compared to the public also suggested a conflict between the corporation logic and the state logic. The PPP operators did not comply with the state logic as taken-for-granted like the GR operators. For

example, Huimin did not comply voluntarily but adopted the strategy of “Compromise” (Oliver, 1991) to fulfill the contract and government requirement. To-ride adopted a more active approach as it tried to promote a more commercialized model of PBS, suggesting the strategy of “Manipulation” (Oliver, 1991). To be noted that Juzi’s organizational response to the state logic with an “Acquiescence” strategy, as it voluntarily complies with external requirements (Oliver, 1991). This may suggest its differentiated management decision.

The three PPP operators are different from the two GR operators as they combined more market logic and adopt market strategies. PPP operators usually have their corporation goal or market goal. For the two PPP operators: To-ride had been making partnerships with bike renters to provide PB service. It was also developing a new App to provide cycling-related services to customers, which was also for expanding their business scope and market; Huimin set off from the parent company’s business strategy as a branding project and corporate social responsibility investment. Also, Huimin hired business professionals and non PBS-related engineers to develop other business such as “smart card payment” and tried to sell their PBS service to other cities. For Juzi Company, besides the partnership with the government, it also supported its parent company’s national expansion plan (including potential business diversification).

Perception of complementary logics

From the data, some operators perceived logics as complementary, such as the state logic and the community logic (refer to resident benefits and community mobilization). As residents’ welfare was part of the government’s focus, the community development for a better living environment and public transport align with the state logic. Hence, increasing PBS’ visibility in the region and coordinating PBS stakeholders’ activities can stimulate public attention, which can further engage more PBS stakeholders.

Another perception of complementary logics is the corporation logic and market logic. Revenue was significant to the financial sustainability of corporations. For the three PPP operators, they paid attention to secure government subsidy. Also, their top management assigned profit-oriented tasks to generate business opportunities, such as market expansion and product/service development.

Three logics - corporation logic, state logic, and market logic, were common as the operators usually combine them in their strategy. Indeed all the five operators have influence from the corporation logic and community logic. They recognized themselves as a company (state-owned or private) who paid attention to community engagement. The strategy of four operators (except To-ride) suggested the state logic, the two GR programs were particularly (JLPB and Huangyan PB) strongly aligned with the state logic. The two PPP operators’ actions suggest their understanding of PBS companies from the state logic and

corporation logic. The managers of JLPB and Huangyan PB supported the unifications of PBS programs at the municipal-level or higher level. They also compared the merging PBS operation companies to the corporate structure of state-owned public bus companies.

Indeed, PPP operators mentioned to have explored PB program's market potential. Juzi paid more attention to the measures related to the state logic and To-ride and Huimin Operate paid more attention to strategies suggesting market logic. Huimin Operate combined all the four logics proposed in this study.

Parent organization's institutional influence

The analysis also showed that PPP operators' parent companies had influence on the managers in terms of organizational identity, business diversification, market expansion, and revenue generation (the corporation logic and market logic). This is similar to how GR operators were influenced by the state's public administrative system.

Our study shows that the operators' understanding of community members is different, and most of them limited the community engagement within their direct institutional group. This also suggests the influence of institutional logic from their parent organization. For example, GR operators tend to promote PBS with government-related institutions but not much with the private sector; and two of the PPP operators (excluding Juzi) did not express a close relationship with government agencies. According to the data, GR operators were more likely to cooperate with schools and other governmental institutions to promote PBS (as a public good) and encourage citizen engagement. Under direct government's leadership with strong public welfare logic, GR operators focused more on operation and public responsibility. For PPP operators, their focus was more on company value, social innovation (technology) and business development. This observation suggested that there is room for operators on strategic practices exploration and community mobilization.

DISCUSSION AND SUGGESTIONS FOR FUTURE STUDIES

The study explores five PBS operators' organizational characteristics and how their managers understand PBS programs through the perspective of institutional logics. Below is a summary of the major findings with further discussion as followed.

1. The study suggests that China's PBS operators perceive multiple institutional logics in their sources of identity, legitimacy and authority. These logics include the state logic, the corporation logic, the market logic, and the community logic. Operators share differences in their perception of logics, which leads to various organizational behaviors. Moreover, parent organizations may pose institutional influence on operators. And the perceived prevalence of state logic also influences PBS strategies.
2. All the five operators adopt logic combination; meanwhile, they also adopt some of the resisting strategies as proposed by Oliver (1991). Multiple logics did not necessarily pose great conflict to the organizations; different logics can be "conflicting" (Oliver, 1991) as well as "complementary" (Greenwood et al., 2011; Pache & Santos, 2013).
3. The "community logic" represents various meanings as operators identify different community members.
4. The "typologies analysis" is a useful tool to analyze hybrid organizations' institutional logics.

Influence of multiple institutional logics

All the five PBS operators acknowledge the state logic as the major authority in their PBS programs. Meanwhile, these operators have influence from the corporation logic and the community logic. Thus, operators choose to combine different logics to achieve both organizational legitimacy and corporation goals. In the meantime, all PPP operators perceived more market logic and explore market potentials. This suggests that different business modes share different institutional logics which lead to different organizational behaviors. However, one may ask whether the institutional logics change organizational behaviors or the structural differences make organizations comply with certain behavior patterns. Questions remain whether PBS operators' strategies depend on managers' perception of logics or on political and power structure to which the organizations belong.

Institutional influence

The study already suggests that influence of the institutional power on PBS organizations. For instance, the two government-run (GR) operators suggest stronger state logic; and the three public-private-partnership (PPP) operators suggested stronger corporation logic and market logic. The different

perception of the two business modes supports Friedland and Alford's (1991) perspective that organizations' institutional logics shape individuals' cognition and behaviors.

Managers of GR programs were appointed by government agencies and had working experience in the public system. Embedded in the public institutions, the managers implied that government decisions served as a principal authority. They tended to comply with government decisions. But they also thought that PBS sustainability required both community support and government support (e.g., policy protection and guidance, PBS Companies' financial sustainability). The three PPP operators positioned themselves as the professional service providers to the local governments and claimed to fulfill the requirement proposed by the governments. These private operators seemed to follow their parent company's institutional logic which was oriented to corporation logic and market logic. They perceive PBS business as part of the company business strategy or solidarity mission.

Prevalence of the state logic

As showed in the data, the state logic was prevalent in managers' perception of the programs and state logic influenced their organizations. It also suggests the higher legitimacy and advantages for GR operators. The good influence is, government-held inter-city learning and the "success" of some GR programs (e.g., Hangzhou) encourage the diffusion of GR practices and improve the regulations for PBS implementation and maintenance. However, this prevalence of state logic can be a concern for PBS development in other regions. As different cities' economic development and government revenue is different, the heavy liability on governments may not benefit the public for the highest efficiency. If GR mode becomes the "industry standard", it may further reduce the legitimacy of other business models and other institutional actors, i.e. private operators will be less motivated to invest in service development. Of course, the study asks for empirical validation of PPP programs. The study suggests future research to examine whether PBS programs' impact are as claimed by the operators (the institutional logics claimed by the operators). It is important to explore the advantages and disadvantages of PBS's state logic. Furthermore, researchers can examine the strategies of hybrid organizations or private companies in a strong state logic environment.

Organizational response and perception of conflicts among logics

The five operators' community mission aligned with their sources of legitimacy (the government, PBS users, as well as residents). Due to various legitimacy constraints, power structure, and management strategies, managers perceived various degrees of conflicts among logics.

The finding suggests weak to high level of conflict between the state logic and the corporation logic/market logic. For example, local governments expected the companies alone to maintain the

programs well as the operators are public owned or should fulfill the operation contract (state logic). However, the five operators believed that governments should bear more responsibility in PBS maintenance as PBS was a public program. The state logic conflicts with their corporate autonomy and profit generation. Being companies, they paid attention more to corporate sustainability, such as company planning (corporation logic) and market investment (market logic).

By contrast, the above logics can see compatibility in two ways. For example, in the partnership of PPP operators and governments, PPP operators obtain market profit (market logic) by providing service to implement government mission (state logic). These operators can perceive governments as partner and supporter (corporation logic and community logic). Although To-ride faced legitimacy crisis as it was less recognized by the government, its value-added PBS app that facilitated rental process was endorsed by some government officials as a good practice to serve the public (Qiu, 2015). This suggests that although operators share different logics, the logics could be compatible in some condition, which creates opportunities of common goals and joining efforts.

Due to the prevalence of state logic in GR programs, their managers usually felt less institutional conflict among the state logic, the corporation logic, and the community logic, and they prioritized the state logic as taken-for-granted practice. For PPP operators, when market logic was weak in Juzi (who experienced less market logic), Juzi did not perceive state logic as constraint and actively cooperated with the government; when market logic was strong in Huimin and To-ride, the two operators showed certain resistance to the state logic. Also, they prioritized corporation logic, complied partially with state logic, or manipulated the current norm. To illustrate, Huimin's perception of their business partnership with the government suggests a combination of the corporation logic and the state logic. It is interesting to find that Juzi behaved slightly different from the other two PPP operators. Juzi's business strategy demonstrated stronger state logic and less market logic. This suggests possible differences of management focus among PPP operators. . In addition, future research can discuss in details the context and conditions when logics are conflicting or complementary with each other. More specifically, the understanding of how power is perceived by operators/decision-makers and whether power perception will affect organizational strategies can generate new thoughts on hybrid organizations' strategy.

Different meanings of the community logic

It is interesting to find that the operators define community members (stakeholders) differently.

The two GR operator managers paid attention to citizen relations (Huangyan PB) and civil society (JLPB). They communicated with the public through company's social media and employee volunteering events while involving other organizations to participate in PBS-related promotion. JLPB's manager said,

“PB is a public welfare project that every member and institution of the society should support. It is different from charity”. JLPB’s manager suggested that he would like to incorporate residents as community members to support the PBS. This indeed also suggested the compatibility of the state logic and the community logic: if more society players contributed to PBS, the political goal of popularizing PBS to improve the public transport and environment can be achieved.

For PPP operators, community logic’s focus was not on public welfare, but on either solidarity mission (To-ride), company business development (Juzi and Huimin), or corporate social responsibility (Huimin). To-ride emphasized on the community value and promoted cycling culture- it wanted to provide value to cyclists and created a cyclist community through APP technology, instead of free welfare service to the general public. PPP operators tended to have less communication with the general public than the GR operators, except for Juzi, who maintained close cooperation with the government and marketed PBS through both the company and government media.

Community engagement

The study shows that the community engagement is complementary to the state logic. It is possible that if community partners share more ownership of PBS, the community effort will get strengthened. Furthermore, the idea of “PBS belonging to the community” could encourage operators’ intention of communication with the community members, which is an important step to gain social acceptance from their community members. This could imply a managerial strategy of engaging the public/community to develop PBS programs. The study suggests future studies to investigate the effect of PBS community logic (e.g., increase public ownership, increase PBS transparency and public supervision). Future studies can discuss the role of community logic in fulfilling the public welfare mission that the operators claim.

Typologies analysis as an analysis tool

In terms of the study’s methodology, the use of analysis table helped with the identification of hybrid organizations’ organizational characteristics and strategy. It served as a useful tool to structure the qualitative data. The data analysis process was not straight-forward, as some of the organizational behaviors could be related to more than one organizational characteristics and logics, such as the corporation logics and market logics. Thus, the data coding of the study required reference from both the revised table and the concepts proposed by other scholars. Thornton et al. (2012) has mentioned that institutional logics might have different meanings depending on the precise context. That may explain the various definitions of organizational characteristics regarding different institutional logics. This requires the researcher to define logics and maintain consistency throughout the cross-case analysis. However, the adjusted table may not be as good to study the western PBS operators as the definition of the institutional

logics would be different. Also, the different understanding of societal logics between the West and the East can be interesting for future studies.

On the other hand, societal institutional logics (institutional orders) may not be sufficient in institutional analysis. The data suggested various expressions of community logic and that state logic may be regarded differently according to business modes, which indicates the need to understand sub-categories of institutional logics. The current conceptual table in Thornton et al. (2012) only focuses on societal institutional logics. Researchers may need to study sub-categories of logics to better understand the organizational nature. This will also make the understanding of societal orders more comprehensive. In general, clearer definition of institutional logics in different organizational aspects and accurate identification of sub-societal institutional logics is important for institutional studies.

Future study can also compare the differences between individual perception of logics and the ideal types of institutional logics. This can help scholars better understand the variance of sub-category logics and the roles of organization members in enacting institutional logics and influencing organizational strategies.

Theoretical implication from the findings

The study shows that institutional logics perspective can help to understand the interrelationships of PBS' institutional pressure and organizational strategies. The interaction between different logics can be perceived complementary and conflicting. That is, a hybrid organization can combine logics (conflicting or complementary) while resisting some of the logics at the same time. This supports Pache and Santos' (2013) suggestion of "logic combination" as a strategic response of hybrid organizations towards multiple logics as well as Oliver's (1991) proposition of organizational responses. Most importantly, the strategy of "logic combination" and the strategy proposed by Oliver do not conflict with each other. For example, one operator (Huimin) claimed to embrace the identity of public livelihood program (state logic) but only achieve parts of the government requirement ("Compromise"). Depending on the organizational identity, a hybrid organization may enact the logic passively or proactively, resulting in various organizational responses, such as taken-for granted "Acquiescence", voluntary "Acquiescence", partial "Compromise", and active "Manipulation".

Managerial implication

The study hopes to help PBS operator managers generate a more systematic view on the sources of authority and constraint, as well as the potential stakeholders that they need to engage. The operators should better promote PBS program goals to help different stakeholders identify their roles in PBS development. For example, citizens will understand the relationship between the government and the

different operators. Also, as PBS shares strong state logic, citizens should engage more in the decision process through the government administration. In addition, neither the government nor the operator should neglect the logics of the other social sectors. That is because: PBS operators are under the influence of many different logics. Since cities share similar conditions as the case studies, they can understand better the relationship among PBS stakeholders. Based on the study, more managerial suggestions are proposed below:

Firstly, the study revealed PBS operators' dilemma. Also, compared to GR operators, PPP operators may receive secondary treatments from the governments and other stakeholders.

For all PBS programs, due to some citizens' lack of caring for public property as well as the lack of regulation to protect PBS infrastructure, residents do not maintain public bike as their personal property. Moreover, the "free use" concept may devalue the PBS and make residents take care of the bikes less. Furthermore, PPP operators have less power in securing funding as GR operators, which suggests that governments may treat PPP operators differently. In this case, operation companies (PPP operators in particular) may find it unjust to be responsible for the infrastructure damage. Under the notion of "public bike" from the state logic, even if the private companies show more ownership of the operation, residents may not appreciate it. The public may still think PBS as a government project and take it for granted. However, that does not mean that PPP programs cannot sustain. According to the case of Juzi, the operator claimed to provide professional service and have good partnership with the government. The private operator voluntarily complied with government demand and embraced state logic mission. In return, it secured great support from the government. The roles of the operator and the government are clearly identified at the beginning. Also, they share transparency on program operation and work closely to improve the program. The core is the transparent communication and clear roles definition between the operators and the governments.

Secondly, decision-makers' political intention is also an area to watch out. Besides transportation and environment improvement, the study confirms that governments identify PBS as a response to the provincial political call and as government achievement. However, the low rental pricing (free ride period of 1 hour to 4 hours and low surcharge) may come from political intention without comprehensive consideration of public resources efficiency. A risk would be the escalation of operation cost and finally, an increased burden on operators and residents. As the operators face capital constraint, they may feel reluctant in station expansion and maintenance, as well as business diversification. This can apply to both public and private operators. Although all governments promoted the programs with a goal of resolving the "last-mile problem", the managers (e.g., one manager of JLPB) agreed that the 1-hour-long free ride and lack of docking stations in residential areas did not justify this claim. Both Huimin Operate (PPP) and

Pukou Public Bike (GR) expressed the pressure of ensuring service quality while bearing high maintenance cost. Indeed, some of the managers already raised different ideas to the PBS program design, they pointed out the inefficiency of two-hour free ride design and potential waste of public resources (e.g., JLPB, Juzi and To-ride). In this case, politicians and other decision-makers should communicate with operators to understand the program at the front-line.

Thirdly, the study suggests both the GR operators and PPP operators consider building a stronger PBS community. The study found that the two types of operators did not maximize their community engagement. Both GR and PPP operators can be more active in creating ties with more stakeholders, including business partners, residents, PBS users, media, public institutions, as well as social groups. They can also advocate their value proposition to maximize social acceptance, such as the reasoning of commercial practices and differentiate pricing. Ma (2015) has demonstrated that media attention affects government decision on PBS adoption. It is an educated guess that PBS operators can also utilize the media to promote practice legitimacy and to recruit residents to join the PBS community. The community building can be a further step to make the general public take more ownership of PBS, thus help to support PBS maintenance and development. In general PBS operators can “make” themselves as active social agents in the community to encourage more community effort.

PBS design and PBS effectiveness in urban sustainability

Another area of study is to use institutional logics to examine the design of PBS programs and the impact of urban sustainability. Due to maintenance challenge and facility cost, a PBS bike is far more expensive than a private bike. If a resident lost the bike (or someone steals the PBS card), he/she has to cover the cost of the bike besides the deposits, which will be up to US\$166. This amount is equal to the cost of two to three regular private bikes. Although some managers said that the indemnity was “justified according to the usage agreement” (e.g., JLPB and To-ride), this could reduce the usage willingness of low-income residents. For the general public, this will contradict the public benefit claim.

Whether this “free-use” design and high charge of bike lost achieves public benefit may need more investigation. Ma (2015) worries that China’s GR PBS diffusion is the result of government competition (government officials’ political performance). He alarmed that personal political interest could harm PBS’s long-term sustainable development. He suggested higher-level governments be cautious with lower-level governments’ symbolic policy, impression management, or illusory diffusion (Fichman & Kemerer, 1999) during PBS’s implementation. In this study, some PPP operator managers question GR operators’ professional experience and motivation to improve PBS service efficiency. Researchers could investigate the institutional logics in detail during the decision-making process and program supervision to see whether the operators fulfill the institutional logic that they claim.

LIMITATIONS

The study can improve on research methods, research sample, and the definition of the relation of ideal institutional logics to the organizational aspects.

In terms of research methods, internal validity could be a limitation in the study. It is usually defined as the extent to which the findings correspond accurately to the real case (Golafshani, 2003). It may be affected if the interpretation of the data by the researcher is not accurate. During the interview, I tried to repeat the managers' answer to confirm their idea. Also, to retrieve the organizational responses, I only kept the data that shows organizational actions and the data that are important for managers (amount of words and tone of the managers). The secondary data also helps to confirm the interview data so that the understanding of the organization logics would be more accurate. As the data analysis was done by only one researcher, there are limitations on individual understanding of qualitative data. To increase reliability, it is better to have more than one researcher to conduct and compare the data coding in order to reach higher data reliability. The study tried to increase research generalizability by collecting data from more operators, as findings derived from more organizations will be more generalizable than from only one organization (Schofield, 2002). The samples included both GR and PPP operators in three provinces, which can increase generalizability. However, the current sample size limits the generalizability.

Due to the lack of existing data on the instantiations of PBS's institutional elements, future studies can include more PBS cases to identify important organizational elements and validate characteristics of different institutional logics. Due to the lack of openness and willingness of PBS managers to participate in a non-government research, it was difficult to recruit more managers to participate in the study. One scholar (personal contact) shared reasons of the difficulty on participant recruitment: some government-led research or site visits were organized and many organizations did not show much interest in academic research. This study only interviewed the managers of the PBS operation and looked for secondary data to understand other levels of the organizations. It will be good to have the opportunity to interview employees from different levels of hierarchy within an organization, including front-line staff and managers of the parent company. This could generate a thorough understanding of the organizational logics. Also, longitudinal studies with observation will be helpful to analyze individuals' behaviors of logic adoption. Last but not the least, future empirical studies on other PBS stakeholders and practices can better understand organizational context and responses. Cross-country comparative case studies can generate more experience on sustainability development of PBS programs.

ENDNOTES

1. In the modern context, district or sub-city (Chinese: 区), formally city-governed district or municipal district (Chinese: 市辖区), are subdivisions of a municipality or a prefecture-level city which were set to facilitate the municipality governance (Zhu & Wang, 2013).
2. ITDP: Institute of Transportation & Development Policy, an international research center for urban transport solutions based in the US and have several branch offices around the world.
3. Wuhan's Xinfeida PBS program (2008-2013): By 2011 the number of public bicycles in Wuhan was over 50,000 and bicycle service points more than 1000 (Zhang et al., 2014). Residents can apply for a member card by registering with their ID card and paying only 5 dollar, the program's revenue is mainly the moderate government subsidies and billboard advertisement profit as not much revenue can be generated from the 2-h free ride system).
4. In 2000, the cycling percentage in Beijing decreased to 38.5% and in 2013 this number fell to less than 15% (MOHURD, 2013). Although China is still the country that produces the most bikes worldwide and has about 0.37 billion bikes in 2013 (in addition of 0.18 electrical bikes), private biking is less and less seen on the streets and mountain bikes "become" part of the culture of extreme sport for young people.
5. Recently, WeChat (Or called WeChat) became the most popular social media platform in China. WeChat is more mobile phone –friendly and its monthly active users are estimated to be 712 million in China (Smith, 2016). In addition, while many PBS programs use social media to communicate with the public such as Weibo and WeChat, some operators focused more on developing mobile-phone APP. Depending on the PB programs, the APP' operator can either be the operation company or the government. In Nanjing, the government incorporated the PB program docking information in the city administration APP (Nanjing Information Center, 2016).
6. The municipal government of Hangzhou City initiated its city-owned bike-share program in 2008 to better regulate the private bike-rental market for tourists. Later, the city aimed for sustainable Public Transit-Priority network to reduce automotive traffic (Lu, 2009). The program's docking stations grew from 61 docking stations in 2008, to 3354 stations in 2015 (called "service stations", (see company website: Hangzhou Public Bicycle, 2014). The program improved the bike-rental experience for tourists and eased traffic problems (congestion and parking) for the local. The city see that PBS also further improves its image, as media covered how tourists and residents appreciate the program (Lu, 2009). The program created jobs and improved tourism service as well as the local economy. The city won national and international honors for its creative sustainable city planning (Hangzhou Public Bicycle, 2014).

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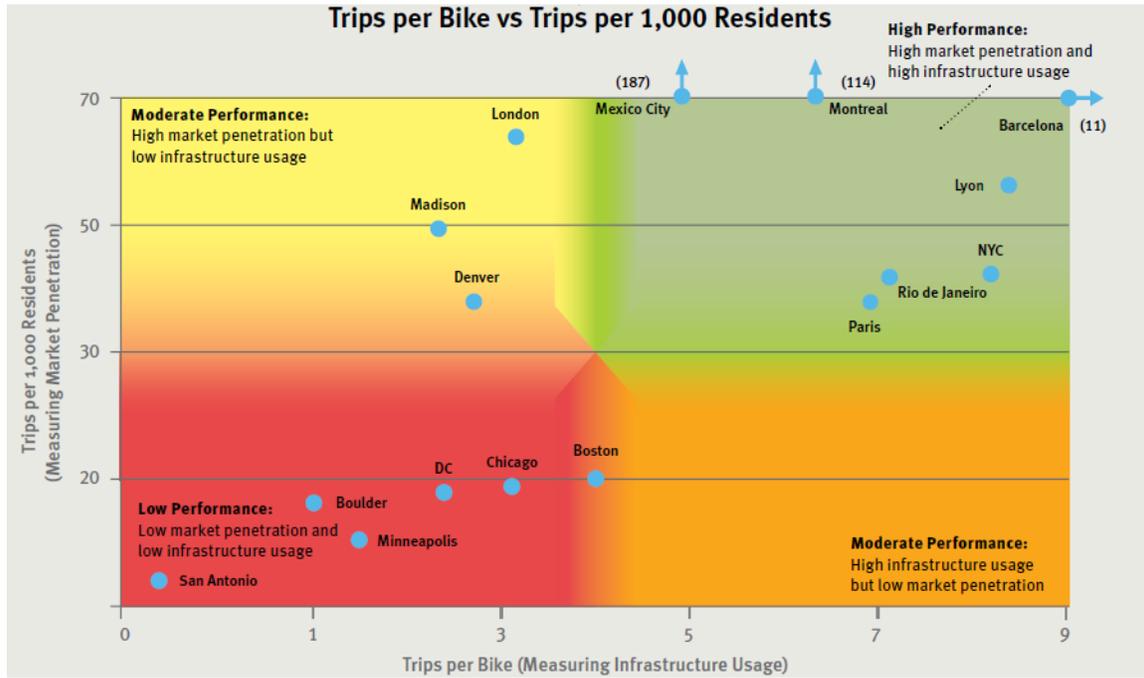
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APPENDICES

Appendix 1 PBS Performance Metrics

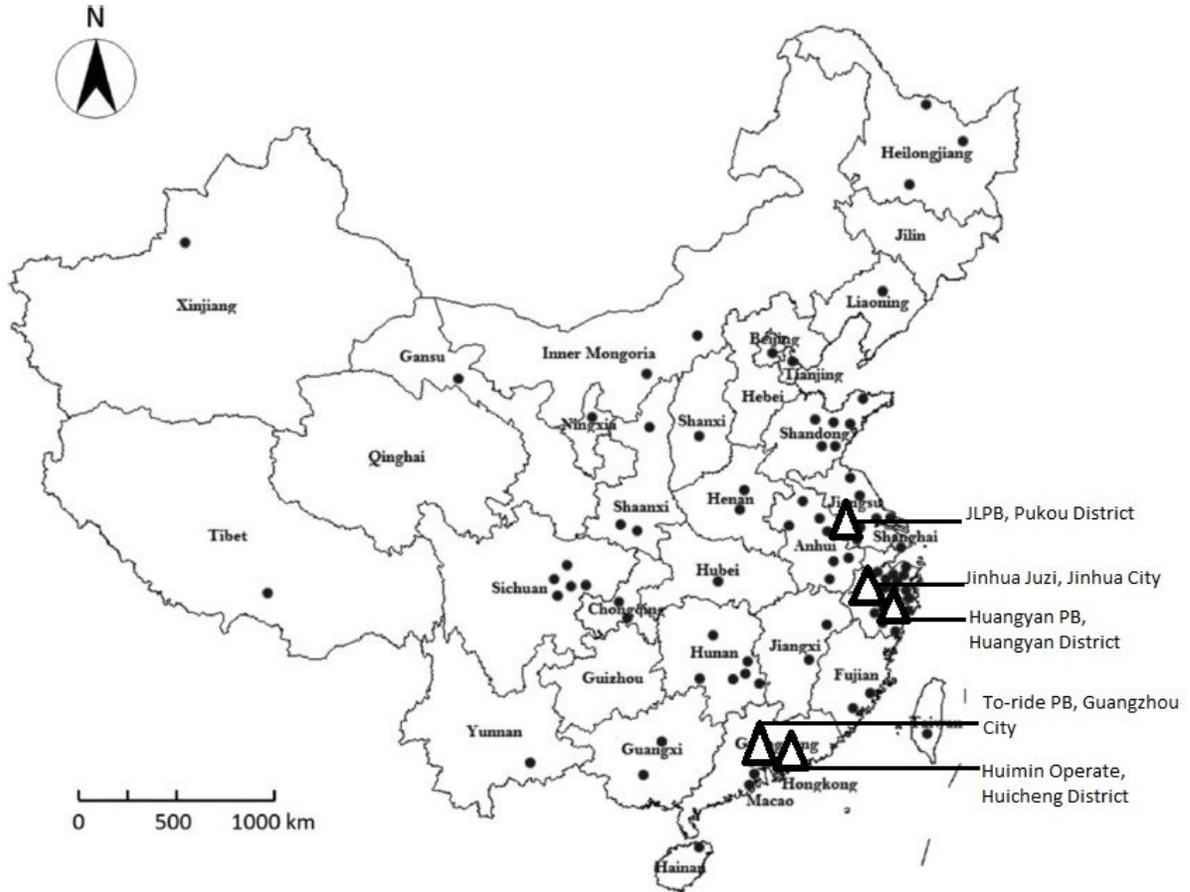
Figure 2 Performance metrics of Bike-share System in the ITDP report.



Source: (Gauthier et al., 2013).

Appendix 2 Map of the companies and programs

Figure 3 Map of the companies and programs



Note: The triangle signs indicate the PBS Operators studied in this research; the black dots indicate the major PBS programs in 2014. Figure Adapted from Yang et al. (2015)

Appendix 3 Recruitment Letter

a. Interview recruitment letter- introductory email and consent form (in English)

Dear Sir/Madame,

My name is Zhang Suiqing, I am pursuing graduate research under the supervisor of Prof. Raymond Paquin at the John Molson School of Business at Concordia University. I would like to invite you to participate in a study on public bike-share organization. Your participation will help generate a deeper understanding of public bike share program management and help provide policy insight to different sectors (policy makers, operators and non-profit organization, including the participants) as they develop programs in the future.

We hope you will agree to share your experience in public bike-share programs management through either a phone or email interview, which should take about 40 minutes.

If you agree, please know your involvement is completely voluntary. We will not share any participant and organization names without consent. You do not have to respond to any question that makes you uncomfortable, and you can withdraw from the study during the interview.

I will email you again in the near future to see if we can set up an interview time. As well, if you have a particular time you wish to talk, please let me know as well as the best way to reach you.

If at any time you have questions about this project, please contact me at email: su_zha@jmsb.concordia.ca, or my supervisor, Prof Raymond Paquin (Raymond.paquin@concordia.ca) directly. Looking forward to your reply.

Yours sincerely,

ZHANG Suiqing

INFORMATION AND CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Study Title: Institutional Logics and Organization Management: Case Study of Public Bike Share Programs

Researcher: Suiqing Zhang, Master student in Administration

Researcher's Contact Information: su_zha@jmsb.concordia.ca

Faculty Supervisor: Raymond Paquin

Faculty Supervisor's Contact Information: raymond.paquin@concordia.ca,
514.848.2424 x.2911

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE

The purpose of the research is to explore how public bike share programs are viewed and managed in China, in order to provide greater insight into developing these programs in the future. .

B. PROCEDURES

If you participate, you will be asked to participate in an interview over the phone or by email. Participating in the interview will take less than 40 min.

As a research participant, your responsibilities would be to share your answers honestly during the interview and raise your concern have.

C. RISKS AND BENEFITS

There is no foreseeable risk. As well, participant and organization names will be kept confidential and not shared beyond the PI (myself) and thesis committee.

As a participant, you will help us better understand how public bike share programs are managed and thus help provide insight into different sectors (policy makers, operators and non-profit organization, including the participants) to better understand these programs

D. CONFIDENTIALITY

By participating, you agree to let the researchers have access to information about your experience in a public bike-sharing organization. This information will be obtained from the interview over the phone or email communications.

We will not allow anyone to access the information, except people directly involved in conducting the research, and except as described in this form. We will only use the information for the purposes of the research described in this form.

To verify that the research is being conducted properly, regulatory authorities might examine the information gathered. By participating, you agree to let these authorities have access to the information.

We will protect the information by keeping the participant and organization names confidential and not shared beyond the researcher and supervisor.

We intend to publish the results of this research. Please indicate below whether you accept to be identified in the publications:

I accept that my name and the information I provide appear in publications of the results of the research.

Please do not publish my name as part of the results of the research.

We will destroy the information five years after the end of the study.

E. CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time. You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information, you may tell the researcher anytime after the interview and it will be deleted. We will tell you if we learn of anything that could affect your decision to stay in the research. There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

F. PARTICIPANT'S DECLARATION

I have read and understood this form. I have had the chance to ask questions and any questions have been answered. I agree to participate in this research under the conditions described.

NAME (please print)

SIGNATURE

DATE

If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1. You may also contact their faculty supervisor.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

b. Sample Recruitment Letter (in Chinese)

致徐州公共自行车公司李经理的采访邀请

李经理您好，

我的名字是张穗青，华南师范大学的毕业生，现正在加拿大协和大学交流（商学院 Economist 排全球前 80 名）并与我的导师帕昆博士进行公共自行车组织管理的学术调研。我们希望邀请您参与我们的电话采访，分享组织管理方面的经验。您什么时候方便我可以致电给您进一步联系，谢谢。

我们的调研探讨公共自行车项目的组织管理，寻求公益性与可持续运营的平衡点，得到国内外的学者的支持。我们十分希望你们支持这项研究，你们将帮助政府决策者及公共自行车公司的组织管理决策者。同时，调研的结果将会促进政府机构、社会企业与市民更好地了解公共自行车项目。我希望我们也能为您提供有意义的参考信息。

我十分期待与您进一步交流，已附上采访的大纲，电话采访约 35 分钟。如有任何疑问，请联系本人邮箱 suiqing.zhang@outlook.com。期待您回复方便的时间，谢谢。

祝工作愉快，

张穗青

公共自行车组织管理调研 su_zha@jmsb.concordia.ca

导师邮箱 raymond.paquin@concordia.ca

Concordia University <https://www.concordia.ca/jmsb/about/rankings.html>

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研究说明

各地公共自行车项目正处与探索与创新的阶段，众多管理者仍在积累组织管理的经验。目前关于公共自行车组织管理的研究十分缺乏。如何深入了解公共自行车项目的组织管理，寻求公益性与公司持续发展的平衡点，正是本次研究的重点。

根据国外关于社会企业与公益组织的最新研究，了解制度逻辑对帮助管理者理解绩效管理、有效建立管理策略发挥重要的作用。我们将从最新的研究角度出发，通过电话采访多位公共自行车公司管理者，协助管理者分析公益组织管理与收益模式的难点，共同探讨公共自行车公司的可持续发展。访谈参与者将为公共自行车公司的管理决策作出宝贵的贡献。同时，调研的结果将会促进政府机构、社会企业与市民更好地了解并参与到公共自行车中。我们十分感谢受访者与国内外学者对本调研的支持。

本学术调研对所有参与者及单位采用匿名处理，如有任何疑问，欢迎联系研究的负责人张穗青，suiqing.zhang@outlook.com 或 su_zha@jmsb.concordia.ca。

感谢您对本调研的大力支持！

同意参加调研协议

我们邀请您参与以下调研。这份表格有关参与须知的内容。在参与本次研究前请仔细阅读。若有任何疑问，请联系研究员。

调研题目：组织制度逻辑与管理策略：公共自行车项目为案例

调研员：张穗青，管理学硕士

研究员联系方式：su_zha@jmsb.concordia.ca

教学导师：Dr. Raymond Paquin

导师联系方式：raymond.paquin@concordia.ca, 514.848.2424 x.2911（加拿大）

一. 研究目的

本次调研的目的是探讨公共自行车项目在中国的管理。希望探讨当中的管理经验并促进项目的可持续发展。

二. 调研步骤

您将受邀电话采访（或邮件采访）电话采访约 40 分钟。作为调研的参与者，在参与采访途中，您的责任将是诚实分享您的见解，并提出您的任何疑问。

三. 利益与风险

本次调研并没有可预见的风险。同时，受访者与受访者所在机构的名字将尽为研究员级导师知道并尽责保密。

作为受访者，您将会帮助我们更好了解公共自行车运营组织，有助我们协助政策决策者，运营方及其他机构及参与者更好发展公共自行车项目。同时，参与者与大众能从组织管理的角度更多认识公共自行车组织。

四. 保密内容

若参与本次调研，您已同意让调研人员获得与您在公共自行车组织管理的经验。调研人员将通过电话访谈或邮件交流以获得这些信息。

除了直接组织调研的人员，我们不会让其他人接触到这些信息，除非这份协议里允许公开的信息。所得的信息仅用于本协议中描述的学术调研。

为确保调研执行恰当，相关监管机构可能会检验所获得的信息。若您参与本次调研，您同意让所述监管机构接触这些信息。我们将对受访者及受访组织的名字进行保密，仅直接采访者及调研导师知晓。

我们希望发表调研结果。请在以下选项中表明您是否愿意在发表文章中被识别：

我愿意把我提供的我的姓名及其他访谈信息公布在调研结果的文章中。

请不要让我的名字出现在调研结果的文章中。

我们将在调研结束五年后消除所有信息。

五. 参与调研条件

参与调研是自愿性的。若您确认参加，您可以在任何时候中止。您也可以要求研究员不使用您提供的信息，我们将尊重您的选择。您可以在采访后告诉调研员。

若我们发现有任何会影响您参与调研的因素，我们将告诉您。若您不参与调研，中途中止或想我们不使用您的信息，不会有任何负面影响。

六. 受访者声明

我已经阅读并了解本协议书。我有机会提出疑问并获得解答。我同意参加基于以上条件的调研。

姓名 _____

签名 _____

日期 _____

若您对调研的学术性有任何疑问，请联系调研人员。若您对调研设计的道德责任有任何疑问，请联系协和大学学术调研伦理办公室经理 . 514.848.2424 ex. 7481 或 oor.ethics@concordia.ca.

Appendix 4 Interview Protocol

a. Interview Protocol (in English)

Interview Questions (to be translated to Chinese) - Manager
Institutional Logics and Organization Management: Case Study of Public Bike Share Programs

1. Can you tell me a bit about your professional background? Describe your current position and how did your prior experiences lead you here?

- How long have u been in the organization, what is your position?

- What are your tasks on an average day?

2. Can you tell me how your organization founded and developed? What role did your organization play in developing the public bike-sharing program and what role does it play now?

3. What are the main objectives of your Public Bike-sharing program (PBS)? Have these objectives changed since the beginning of the program? Can you tell me your definition(s)/measure(s) of success for your organization?

4.1 What are the main organizational activities of your organization as it pertains to PBS? Have the focal areas changed over time?

4.2 Why do you think these are (were) the main organizational activities?

5.1 What type of organization model is your organization? What are the reasons do you think that your organization adopts this structure/status? (Government agency, company...)

5.2 Can you tell me the internal governance structure (the number of department, centrality)? Internal structure (the degree of organization department's separation); incentives and control system (performance measures and incentives); governance (board member composition): _____

6. What tend to be the professional backgrounds of the employees that your organization will hire?

- a. Municipal/ district official, policy maker/implementer
- b. State-owned company manager/representative
- c. Professional business manager/employee
- d. Marketing/ Business development/ Sales representative

- e. Technicians or specialists of Manufacturing/R&D / Financial investors
 - f. Citizen advocates/ Volunteers
 - g. Other comments _____
- a. _____%; b. _____%; c. _____%; d. _____%; e. _____%; f. _____%; g. _____%

7. How do you create revenue? How is it spent? Would you consider other ways to use the revenue?

8. What are the actors that participate in the governance of your organization? Who are the key actors do you answer to? What are their roles in the program?

9. Can you describe the roles of all your other partners and related actors? (e.g., your long-term suppliers and sponsors). Please describe the monitoring and reporting organization (superior company, association, and governmental agency), affiliation parties and partners. What are the other partners that your organization works with?

Affiliation, reporting organizations and their roles: _____

Other Partners/Suppliers: _____

10. What are the most important supports and revenue? Is there any condition/obligation for having this supports/revenue? Eg., land use, tax-reduction, marketing return and other potential cost reduction and resources:

11. Can you tell me if your organization have experienced any challenge? How did your organization handle it?

How did your organization make decision such as the charging time and scale? (Membership fee, deposit fee, hourly/daily fee, monthly fee):

12. Based on our conversation, was there any questions that you think I should ask but haven't?

Citizen/social benefits - such as 24h service coverage (% of total fleet), pricing system, website and information platform and measures of social support (# of employment of people in need and other social support)

Were there any issues about the transport system & local environment before PBS operation?

13. Is there any documents that you think relevant to our discussion?

Program scale - number of bikes and docking stations:

% of docking stations located in residential area:

Membership registration methods (citizen-card or others):

Operation in 2014 (community coverage%, daily usage rate per bike) :

The cost of building and maintaining the PBS:

14. Is there anyone do you think I should talk to for the research please? Do you have any questions for me?

b. Interview Protocol (in Chinese)

**2015 公共自行车公司管理与战略
采访提纲(具体采访将根据情况调整)**

研究说明

各地公共自行车项目正处与探索与创新的阶段，众多管理者仍在积累组织管理的经验。目前关于公共自行车组织管理的研究十分缺乏。如何深入了解公共自行车项目的组织管理，寻求公益性与公司可持续发展的平衡点，正是本次研究的重点。

根据国外关于社会性企业与公益组织的最新研究，了解制度逻辑对帮助管理者理解绩效管理、有效建立管理策略发挥重要的作用。我们将从最新的研究角度出发，采访多位公共自行车管理者，协助管理者分析公益组织管理与收益模式的难点，共同探讨公共自行车公司的可持续发展。访谈参与者将为公共自行车公司的管理决策作出宝贵的贡献。同时，调研的结果将会促进政府机构、社会企业与市民更好地了解并参与到公共自行车中。我们十分感谢受访者与国内外学者对本调研的支持。

本学术调研对所有参与者及单位采用匿名处理，如有任何疑问，欢迎联系研究的负责人张穗青，suiqing.zhang@outlook.com 或 su_zha@jmsb.concordia.ca。

感谢您对本调研的大力支持!

一、受访者与组织概况

1. 请您简单介绍南京市公共自行车公司的发展历程吗?
2. 请问贵市对公共自行车项目的主要目标是?
3. 请问如何衡量公共自行车项目成功与效益呢? 这些衡量标准是如何制定的呢?

二、组织管理

4. 您认为公共自行车公司哪些业务比较重要呢？

5. 您认为这些公司需要什么专业背景的员工呢？

a. 市、区级政府公务员，政策决策者或执行者

b. 国有企业管理者或代表

c. 职业经理人或职业员工

d. 市场、商业开发、销售代表

e. 技术员或专家（生产、研发，金融投资）

f. 公民倡议者、志愿者

g. 其他 _____

6. 请您介绍南京（各区）公共自行车公司的管理架构，譬如，组织的法律属性，部门分设，不同业务的管理是如何独立或集中的；奖励制度与监管方式；管理层的成员构成等。

7. 请问参与到公共自行车公司管理的参与者有哪些呢？公共自行车公司需要向哪些人或部门汇报呢？这些主管单位和领导在公共自行车项目里的角色是什么呢？

8. 请问公共自行车公司的决策是谁确定的呢？（譬如财务管理，供应链管理，市场业务，收费及对外宣传等业务）：

三、可持续发展探讨

9. 您认为对公共自行车最重要的资源是什么？如，土地使用，税收减免，市场回报及各种政策及资源

10. 这些年来，南京市在发展公共自行车的过程有没有遇到什么难题呢？对未来 3-5 年有什么计划吗？

11. 您对公共自行车如何可持续发展的看法是？

12. 关于公共自行车，您怎样评价一些媒体提出的概念呢？譬如，“公益性”、“政府主导”、“企业管理”、“市场运作”、“民生”、“公共资源”？

Appendix 5 Certificate of Ethics Board's approval

Figure 4 Certificate of Ethics Board's approval



CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

Name of Applicant: Suiqing Zhang
Department: John Molson School of Business \ Management
Agency: N/A
Title of Project: Institutional Logics and Organization
Management: Case Study of Public Bike Share
Programs

Certification Number: 30004744

Valid From: June 11, 2015 to: June 10, 2016

The members of the University Human Research Ethics Committee have examined the application for a grant to support the above-named project, and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

A handwritten signature in black ink, appearing to read "J. Pfaus".

Dr. James Pfaus, Chair, University Human Research Ethics Committee